

End of the Joint National Committee Heritage?

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End of the Joint National Committee Heritage?

Eoin O'Brien

The National Heart, Lung, and Blood Institute (NHLBI) provides global leadership for a research, training, and education program to promote the prevention and treatment of heart, lung, and blood diseases and enhance the health of all individuals so that they can live longer and more fulfilling lives.¹ One of the activities of NHLBI has been to appoint a Joint National Committee (JNC) to oversee the publication of reports for the prevention, detection, evaluation, and treatment of high blood pressure (BP). The first JNC report was published in 1976, with subsequent reports published every 4 to 6 years with the last one, JNC 7, being published in 2003.²

Credibility of JNC 8

JNC 8 has been long awaited, having been variously dubbed JNC-late and JNC-wait. Well it has arrived, a decade after its predecessor, in the *Journal of the American Association [JAMA]*,³ where it has been ushered in by no less than 3 editorials.⁴⁻⁶ But is this JNC 8? Is it the successor to JNC 7?

If we read the title of the *JAMA* article carefully there is a clue to what may be described at best as subtle deception: "The 2014 Evidence-Based Guideline for the Management of High Blood Pressure in Adults: Report From the Panel Members Appointed to the Eighth Joint National Committee (JNC 8)."³ Compare this with the title of JNC 7, which was "National Heart, Lung, and Blood Institute Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure; National High Blood Pressure Education Program Coordinating Committee. The seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure: the JNC 7 report."² All but the most skeptical readers would assume from the recent *JAMA* title that what they were about to read was the legitimate successor to JNC 7. But there is a disclaimer at the end of the report, which informs the reader that although NHLBI appointed a panel in 2008 to write JNC 8, it informed the panel in 2013 that it would partner in the future with organizations, such as the American Heart Association and the American College of Cardiology, to develop hypertension guidelines.⁶⁻⁸ As a consequence of this decision, the 2 senior NHLBI representatives on the JNC 8 panel withdrew and we are also told that 2 other members left the panel because of new job commitments.³ So with regard to titles we have to assume that by including the words JNC 8 in the title of

the *JAMA* article, both the authors and the editors of *JAMA* wanted readers to assume that this report is in fact JNC 8, which is exactly what has happened with various commentators referring to the article as JNC 8.

If we go on to examine the authorship and acknowledgments, we find further discrepancies. Each report lists 17 authors (3 authors are common to both articles) but in the JNC 7 guideline, there is an addendum, which states the following: "and the National High Blood Pressure Education Program Coordinating Committee." This important proviso acknowledges some 70 leading experts in hypertension in the United States.² The NHLBI process was able, therefore, to recruit and acknowledge a body of expert consensus opinion to give JNC 7 the credibility and authority that it exerted on clinical practice for a decade. However, despite the NHLBI removing its imprimatur, the "depleted panel elected to pursue publication independently to bring the recommendations to the public in a timely manner while maintaining the integrity of the predefined process."³ How, one has to ask, can the integrity of a predefined process be maintained if that process is no longer in existence? A further caveat in the *JAMA* report goes on to compound this oxymoron by stating the following: "This report is therefore not an NHLBI-sanctioned report and does not reflect the views of NHLBI."³ Hence, the remaining panel members, having been denied the authority to complete their brief by NHLBI (for whatever reason or reasons), pushed on regardless and submitted the guideline to *JAMA*, where we are told, it underwent both internal and external peer review.^{5,6} One of the *JAMA* editorials justifies the principles of guideline practice in the report,⁵ which is fair enough, but no amount of exculpatory rhetoric can excuse the fact that this guideline did not complete the process laid down by the NHLBI and it is disingenuous of the authors of the report (and indeed of *JAMA*) to permit the inclusion of the term JNC 8 in the title to the report, thereby implying that it is the long awaited successor to JNC 7. To compound matters, 5 of the 17 authors of the *JAMA* article have now published a disclaimer to one of the recommendations in the report, namely, their disagreement with the all-important stipulation to raise the target systolic BP from 140 to 150 mm Hg in persons aged 60 years or older.⁹ Surely, given the importance of this issue for practice, it would have been more principled for these dissenting authors to withdraw from the entire process? Or, if they felt compelled to remain as authors of the main report, should their minority view article not have been one of the many *JAMA* editorials that accompanied the report?

BP Measurement

I do not propose to comment here on the 9 recommendations in the *JAMA* article other than to ask how recommendations can be made without even mentioning the methodology on which they are based. If the measurement of a marker (and BP

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is simply a marker) is inaccurate, it follows that recommendations based on it will be flawed. There is general agreement that conventional BP measurement as applied in practice is inaccurate and misleading and there is no argument about the importance of white coat hypertension as a cause of unnecessary wasteful and extremely costly drug treatment in as many as 20% of people diagnosed as being hypertensive with conventional measurement.¹⁰

Furthermore, a bevy of recent guidelines acknowledge (albeit with differing emphasis) the importance of out-of-office measurement of BP, and especially the use of ambulatory BP measurement (ABPM), that also permits assessment of nocturnal BP, which is now accepted as a strong predictor of outcome in patients with hypertension.¹⁰

A practicing doctor (and the *JAMA* report is written for clinical practice) in search of detail on BP measurement will have to go through a 316-page Supplement online to find that the previous JNC 7 recommendation on BP measurement still applies. This effectively means that a decade of research on ABPM (which attracts some 10 000 publications annually on PubMed)¹¹ is dismissed with a cursory edict: "this report does not comment on home or ambulatory BP monitoring because they were not used in the randomized controlled trials in our evidence review, and conducting a separate evidence-based review to look at this issue was beyond the scope of this report."¹²

If the technique of conventional measurement was discovered today and submitted for publication, it is unlikely that any editor would consider it worthy of peer review. Or to put this another way: imagine that the term cancer was substituted for hypertension and one had a biomarker for cancer that had a 20% false-positive rate. It is hard to think that one would label all people with the abnormal biomarker as having cancer if simple further testing would clarify the diagnosis.¹³ The further simple testing is ABPM, and one has to wonder at the intransigence of clinical practice that will countenance referral of patients for an MRI scan of the brain for a knock on the head but will not use the technique of ABPM for the diagnosis and management of hypertension.

Interestingly, another guideline has been published jointly by the American Society of Hypertension and the International Society of Hypertension almost simultaneously with the *JAMA* report.¹⁴ In this guideline (the authorship of which it must be said is far more representative of expert American opinion than the *JAMA* report), the importance of BP measurement, and especially out-of-office measurement, such as ABPM, is acknowledged.¹⁴ However, the strongest recommendation for the use of ABPM in clinical practice has come from the National Institute for Health and Care Excellence in the United Kingdom.¹⁵ What makes the National Institute for Health and Care Excellence guideline different from other international guidelines is that for the first time it states unequivocally that ABPM should be offered to anyone suspected of having hypertension by virtue of having had an elevated conventional BP measurement of $\geq 140/90$ mmHg. In short, the National Institute for Health and Care Excellence guideline has effectively substituted suspected hypertension for what other international guidelines have been labeling

as suspected white coat hypertension.¹⁰ This recommendation, which is based firmly on robust cost-benefit analyses, has laid to rest the ghost that white coat hypertension can be suspected, when in fact there are absolutely no clinical or other criteria that give any hint of the condition.^{10,15,16} For the *JAMA* report to ignore BP measurement emphasizes the importance of addressing empirical issues before expounding on treatment recommendations and threshold levels based on a flawed methodology.

The authors of the *JAMA* article have obviously worked diligently since their appointment in 2008, and many of their recommendations are no doubt valuable and based on good evidence. It is disappointing, therefore, to have to question and even more disconcerting to have to highlight a discredited process. More importantly, and worryingly, the JNC debacle is likely to be to the detriment of BP management in clinical practice at a time when authoritative guidance is needed to reduce the global cardiovascular burden of poorly controlled hypertension.

Disclosures

E. O'Brien is a shareholder and board member of dabl Ltd, Ireland.

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