Home Blood Pressure Measurements Will or Will Not Replace 24-Hour Ambulatory Blood Pressure Measurement

To the Editor:

I am pleased that the protagonists in this controversy largely negate the question posed in the title by agreeing that the techniques are complementary rather than one being an alternative for the other, with Verdecchia et al acknowledging that, “Home BP [blood pressure] and 24-hour ABP [ambulatory BP] should be possibly considered as complimentary techniques, to be used with the precise aim of exploiting the best that each technique can provide,”1 and Parati et al stating that, “The current position is that HBPM [home BP monitoring] and ABPM [ABP monitoring] should coexist and be used as complimentary tools, providing different information on a subject’s BP status.”2

I would like to draw attention to 2 aspects of the debate, which were not considered. First, HBPM is a demanding procedure for patients. To obtain a measurement approximating to mean daytime ABPM for clinical decision making, the subject must make 2 measurements in the morning and evening on 7 consecutive days, discard the first day of measurement, and average the measurements of the last 6 days.3 At the end of this demanding routine, the subject has no indication of nighttime BP, which is now recognized as being the most sensitive predictor of outcome.4 Is this routine for obtaining 1 facet of the 24-hour profile preferable to 1 day of ABPM with the given advantages conferred by that technique? Unfortunately, the misconception prevails that an occasional HBPM will give equivalency to ABPM, which is clearly not the case, and such measurements may be every bit as misleading as the inaccurate technique of conventional BP measurement.

The expense of ABPM is acknowledged by both sides as a disadvantage, but the means of making ABPM less expensive was not addressed. The cost of devices is reducing quite significantly and could be favorably influenced by reimbursement incentives by healthcare providers. Of equal importance is the presentation and reporting of ABPM data. I have been developing the dabl ABPM system over many years, not only to standardize the presentation of ABPM data on a comprehensive 1-page report but also to provide a computer-generated report interpreting the data and thereby removing the considerable expense of requiring a doctor to make a report.5 These developments will greatly facilitate the use of ABPM in clinical practice.

In keeping with the helpful analyses and opinions expressed in these “controversy” articles, I join my colleagues in their efforts to propagate out-of-office measurements so as to improve the control of hypertension, which we all admit is deplorable throughout the world.

Disclosures

None.

Eoin O’Brien
Conway Institute of Biomolecular and Biomedical Research
University College Dublin
Belfield, Dublin, Ireland

Home Blood Pressure Measurements Will or Will Not Replace 24-Hour Ambulatory Blood Pressure Measurement

Eoin O'Brien

Hypertension. published online September 8, 2009;
Hypertension is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2009 American Heart Association, Inc. All rights reserved.
Print ISSN: 0194-911X. Online ISSN: 1524-4563

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://hyper.ahajournals.org/content/early/2009/09/08/HYPERTENSIONAHA.109.139097.citation

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Hypertension can be obtained via RightsLink, a service of the Copyright Clearance Center, not the Editorial Office. Once the online version of the published article for which permission is being requested is located, click Request Permissions in the middle column of the Web page under Services. Further information about this process is available in the Permissions and Rights Question and Answer document.

Reprints: Information about reprints can be found online at:
http://www.lww.com/reprints

Subscriptions: Information about subscribing to Hypertension is online at:
http://hyper.ahajournals.org//subscriptions/