Response to Prehypertension: To Treat or Not To Treat Should No Longer Be the Question

In response to our recent study, Kwatra et al\(^2\) wrote a Letter to the Editor indicating that we missed the opportunity to emphasize the evidence for pharmacotherapy in this population. We were surprised by this comment, because we repeatedly highlighted in our article the need for an effective pharmacological complement to therapeutic lifestyle intervention only for slowing the rapid progression from prehypertension to hypertension. In fact, we stated that the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure recommends therapeutic lifestyle change, which includes weight loss, salt restriction, and eating a healthy diet, for example, Dietary Approaches to Stop Hypertension, had limited adoption in the population.\(^3\) We specifically proposed the need for comparative effectiveness research to address this critical issue. We would now like to further document the strong rationale for comparative effectiveness research rather than rapidly moving to pharmacotherapy for the large prehypertensive patient population, which was the focus of our report.

The justification made by Kwatra et al\(^2\) to treat prehypertension pharmacologically was based on a meta-analysis of randomized, controlled trials and is out of context.\(^4\) The cited study refers to prehypertensives treated not for arresting the progression of prehypertension to hypertension but rather for reduction in incident stroke among patients with compelling clinical conditions for pharmacotherapy, for example, clinical coronary artery disease, heart failure, type 2 diabetes mellitus, and atrial fibrillation. Of note, an earlier report also documented significant reductions in stroke, as well as myocardial infarction, heart failure, cardiovascular mortality, and all-cause mortality, when nonhypertensive patients with clinical cardiovascular disease received various antihypertensive medications.\(^5\)

We do not believe that these 2 reports on nonhypertensive patients with clinical cardiovascular disease establish a sufficient evidence base for treating the much larger population of clinically uncomplicated prehypertensive patients. However, there is strong justification to explore pharmacological intervention in clinically uncomplicated prehypertensive patients at high risk of future hypertension and clinical cardiovascular events, for example, blacks,\(^6\) given their accelerated transition from prehypertension to hypertension and their greater risk of cardiovascular disease complications, even in the absence of progression.\(^7\) We continue to view a pharmacological option to preventing hypertension and cardiovascular events in high-risk prehypertensives without clinical cardiovascular disease as more likely to succeed than therapeutic lifestyle change given the slow and incomplete adoption and maintenance of the latter.

Thus, our decision to recommend comparative effectiveness research rather than immediately and strongly advocating pharmacotherapy as a primary prevention strategy is not an opportunity that we missed. Rather, we believe that the recommendation for comparative effectiveness research is a prudent and necessary next step in building the evidence base required to change the current treatment guidelines and management paradigms for millions of prehypertensive patients without clinical cardiovascular disease.

Sources of Funding
This work was supported by the State of South Carolina, United States Army W81XWH-10-2-0057, NIH Clinical Translational Science Award 1UL1RR029882, NIH HL091841, NIH DK067615, the American Society of Hypertension, and the South Carolina Department of Health and Environmental Control.

Disclosures
None.

Anbesaw Selassie
Shaun Wagner
Marilyn L. Laken
Department of Medicine
Medical University of South Carolina
Charleston, SC

M. LaFrance Ferguson
Keith C. Ferdinand
Beaufort-Jasper-Hampton Comprehensive Health Services
Beaufort, SC
Department of Medicine
Emory University
Atlanta, GA

Brent M. Egan
Department of Medicine
Medical University of South Carolina
Charleston, SC

2. Kwatra SG, Kiley AE, Kwatra MM. Prehypertension: to treat or not to treat should no longer be the question. Hypertension. 2012;59:XXX-XXX.
Response to Prehypertension: To Treat or Not To Treat Should No Longer Be the Question
Anbesaw Selassie, Shaun Wagner, Marilyn L. Laken, M. LaFrance Ferguson, Keith C. Ferdinand and Brent M. Egan

Hypertension. published online February 27, 2012;
Hypertension is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231
Copyright © 2012 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/2012/02/26/HYPERTENSIONAHA.112.190751.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/