Blood pressure management in stroke: Five new things

Simona Lattanzi, MD, Mauro Silvestrini, MD: We appreciated reading the article by Bowry et al.¹ addressing the long-debated and controversial issue of management of blood pressure (BP) in stroke. The authors integrated different relevant aspects such as stroke subtype, eligibility for reperfusion therapy, cerebrovascular anatomy, and concurrent medical conditions to provide practical suggestions aimed at formulating a timely, effective strategy for BP control in both ischemic and hemorrhagic stroke.

Besides BP reduction at specific target goals, further efforts should also be undertaken to ensure stability of BP levels. BP variability has been increasingly recognized as a strong vascular risk factor and a predictor of stroke outcome independent of mean BP levels.^{2–4} In our opinion, greater attention should be paid to this new perspective because of the potential implications in clinical practice. First, continuous monitoring should be tailored to provide additional information on short- and long-term BP fluctuations. Second, physicians should not be falsely reassured by BP readings within “normal” ranges if high variability coexists. Finally, practitioners should be aware that BP stability may be affected by both the intensity of treatment and the type of antihypertensive agent.⁵

Marche Polytechnic University, Ancona, Italy.

Disclosures: The authors report no disclosures.

Authors Respond: Ritvij Bowry, MD, Digvijaya Navalkele, MD, MPH, Nicole Gonzales, MD: We appreciate and welcome the insightful comments set forth by Drs. Lattanzi and Silvestrini on our article.¹ BP variability and its relation to clinical outcomes is an important clinical variable that cannot be emphasized enough,^{4,6} especially in light of recent evidence suggesting the same.

University of Texas Health Sciences Center, Houston.

Disclosures: R. Bowry and D. Navalkele report no disclosures. N. Gonzales serves as an editorial board member for *Stroke* and receives research support from the NIH/National Institute of Neurological Disorders and Stroke.

1. Bowry R, Navalkele DD, Gonzales NR. Blood pressure management in stroke: Five new things. *Neurol Clin Pract* 2014;4:419–426.
2. Stead LG, Gilmore RM, Vedula KC, Weaver AL, Decker WW, Brown RD Jr. Impact of acute blood pressure variability on ischemic stroke outcome. *Neurology* 2006;66:1878–1881.
3. Manning L, Hirakawa Y, Arima H, et al. Blood pressure variability and outcome after acute intracerebral haemorrhage: a post-hoc analysis of INTERACT2, a randomised controlled trial. *Lancet Neurol* 2014;13:364–373.
4. Delgado-Mederos R, Ribo M, Rovira A, et al. Prognostic significance of blood pressure variability after thrombolysis in acute stroke. *Neurology* 2008;71:552–558.
5. Webb AJ, Fischer U, Mehta Z, Rothwell PM. Effects of antihypertensive-drug class on interindividual variation in blood pressure and risk of stroke: a systematic review and meta-analysis. *Lancet* 2010;375:906–915.
6. Aslanyan S, Fazekas F, Weir CJ, Horner S, Lees KR; GAIN International Steering Committee and Investigators. Effect of blood pressure during the acute period of ischemic stroke on stroke outcome: a tertiary analysis of the GAIN International Trial. *Stroke* 2003;34:2420–2425.

Special requirements for electronic medical records in neurology

Nitin K. Sethi, MD: Unfortunately, I share neither the enthusiasm nor the optimism of McCarthy et al. about neurology-specific electronic medical records (EMRs).¹ While some of the authors' suggestions, if incorporated, would certainly make my life easier and my clinical care more efficient, I am not convinced they would translate into better patient care. Much has been written about the pros and cons of EMRs. Whether we admit it or not, current EMRs are designed primarily to ensure appropriate documentation of diagnosis and treatment in order to be compliant with billing and coding regulations. While the current generation of EMRs certainly makes the lives of compliance officers and medical coders easier, it does so at the cost of a patient history that is populated from multiple clicks on symptoms and exams that often are not relevant to the presenting complaint. I prefer to type my history, examination findings, and assessment into the EMR in free text form. It makes more sense to me and hopefully to a colleague who may be covering for me. But typing a note in this format takes time, unless you can type at the speed of thought! Self-cloning (cloning of your notes) is a big no-no and I ran afoul of the almighty compliance officer. As it stands today, the EMR remains an undue burden for this neurology care provider.

New York–Presbyterian Hospital, New York.

Disclosures: N. Sethi serves as Associate Editor for *The Eastern Journal of Medicine*.

Authors Respond: Lucas H. McCarthy, MD, MS, Christopher A. Longhurst, MD, MS,

Jin S. Hahn, MD: We thank Dr. Sethi for his comments concerning the difficulties many physicians face regarding the usability of many current EMRs.¹ EMR usability is a major source of physician professional dissatisfaction, as reported in a large survey sponsored by the American Medical Association (AMA) in 2013.² According to a related press release from the AMA, EMR systems in use today are “cumbersome to operate and are an important contributor to [physician] dissatisfaction.”³ With this in mind, the AMA recently called for an EMR design overhaul and provided a framework for prioritizing redesign for physician usability to improve physician satisfaction.⁴ We agree that usability is an important focus for the future of EMRs and is not an issue specific to neurologists. The neurology-specific recommendations that we described are in line with the efforts of the AMA and other organizations to improve the functionality of EMRs through improved specialty-specific data collection, communication, and interoperability. With the increasingly widespread use of EMRs, we see many opportunities for improvement and encourage physicians to be an active part of the optimization process.

University of Washington (LHM), Seattle; Stanford University (CAL, JSH), Palo Alto, CA; and Lucile Packard Children's Hospital (CAL, JSH), Palo Alto, CA.

Disclosures: L.H. McCarthy reports no disclosures. C.A. Longhurst serves as an Associate Editor for *Applied Clinical Informatics*, serves on the medical advisory board for Doximity, receives research support from Hewlett Packard, and owns stock/stock options in Doximity. J.S. Hahn reports no disclosures.

1. McCarthy LH, Longhurst CA, Hahn JS. Special requirements for electronic medical records in neurology. *Neurol Clin Pract* 2015;5:67–73.
2. Friedberg MW, Chen PG, Van Busum KR, et al. Factors Affecting Physician Professional Satisfaction and Their Implications for Patient Care, Health Systems, and Health Policy. RAND Corporation; 2013. Available at: http://www.rand.org/pubs/research_reports/RR439.html. Accessed January 13, 2015.

3. Quality of patient care drives physician satisfaction; doctors have concerns about electronic health records, study finds [news release]. Chicago, IL: American Medical Association; 2013. Available at: <http://www.ama-assn.org/ama/pub/news/news/2013/2013-10-09-rand-study-physician-satisfaction.page>. Accessed January 13, 2015.
4. AMA calls for design overhaul of electronic health records to improve usability [news release]. Chicago, IL: American Medical Association; 2014. Available at: <http://www.ama-assn.org/ama/pub/news/news/2014/2014-09-16-solutions-to-ehr-systems.page>. Accessed January 13, 2015.

Enjoy *Neurology*[®] *Clinical Practice* on your iPad[®]

The same information so critical to your practice is now brought to you on the iPad[®]. This dynamic app optimizes the best in digital technology to enhance the reading experience with article-sharing features, multimedia, links, and more.

Enjoy the benefits:

- Easy-to-read articles you can share via email and social media
- Adjustable text sizing with “pinch and zoom” technology
- Engaging multimedia videos, images, and data supplements
- Ability to store downloaded issues
- Convenient notification when a new issue is available

AAN members — enjoy Full Access to *every issue* on your iPad[®]. If you are not yet a member, download the app and **GET THE LATEST ISSUE FREE!** (Go to <http://bit.ly/NCPapp> for details.)

Neurology® Clinical Practice

Blood pressure management in stroke: Five new things

Simona Lattanzi, Ritvij Bowry, Mauro Silvestrini, et al.

Neurol Clin Pract 2015;5;92

DOI 10.1212/CPJ.0000000000000138

This information is current as of April 13, 2015

Updated Information & Services

including high resolution figures, can be found at:
<http://cp.neurology.org/content/5/2/92.full.html>

References

This article cites 6 articles, 2 of which you can access for free at:
<http://cp.neurology.org/content/5/2/92.full.html#ref-list-1>

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
<http://cp.neurology.org/misc/about.xhtml#permissions>

Reprints

Information about ordering reprints can be found online:
<http://cp.neurology.org/misc/addir.xhtml#reprintsus>

Neurol Clin Pract is an official journal of the American Academy of Neurology. Published continuously since 2011, it is now a bimonthly with 6 issues per year. Copyright © 2015 American Academy of Neurology. All rights reserved. Print ISSN: 2163-0402. Online ISSN: 2163-0933.