Letter by Jennings Regarding Article, “Mechanisms of Bleeding and Approach to Patients With Axial-Flow Left Ventricular Assist Devices”

To the Editor:

I would like to draw your attention to several errors in the publication by Suarez et al1 entitled “Mechanisms of bleeding and approach to patients with axial-flow left ventricular assist devices.” In this article, the authors state that, “For instance, to reduce gastrointestinal tract bleeding risk in these patients, the Henry Ford Hospital (Detroit, Mich) has lowered the anticoagulation target to an INR of 1.8–2.2, with no increase in thromboembolic complications.”

First, I believe that the authors have the wrong reference cited for this statement. In the article, this statement is supported by reference 18, which is a cohort of patients from the INTERMACS registry. I believe they intended to cite reference 19 for this statement, which is an abstract that was presented by our physician group at the American Society of Artificial Internal Organs Annual Conference in 2011.

Second, the default target international normalized ratio (INR) range of HeartMate II patients at our institution is currently 1.5 to 2.5. It was decreased from our previous target range 2 to 3 when the article by Slaughter et al2 was published. For HeartMate II patients with a concomitant indication for anticoagulation, such as atrial fibrillation or history of venous thromboembolism, the INR goal range at our institution remains 2 to 3. As a member of the Anticoagulation Subcommittee of the Pharmacy and Therapeutics committee and the author of our warfarin drug-use guidelines for patients with left ventricular assist devices, I can assure that our standard goal INR range was never 1.8 to 2.2. A recent peer-reviewed publication from our group in the Journal of Heart and Lung Transplantation clearly states in the Methods section that our default goal INR range of these patients is 1.5 to 2.5.

Having a smaller target INR range (1.8–2.2) can be problematic, because patients would naturally spend less time in their therapeutic range. This will result in more frequent visits to the warfarin clinic and a decrease in patient satisfaction and quality of life. This is particularly pertinent to this patient population, because previous data from our group suggest that despite a traditional INR target of 2 to 3, HeartMate II patients may spend a significant amount of time outside their goal INR range compared with non–left ventricular assist device patients.4 I would, therefore, strongly discourage clinicians from selecting a more narrow INR goal range for patients with the HeartMate II device.

Last, since reducing our standard INR goal range from 2–3 to 1.5–2.5, we have not completed any formal analysis examining the impact of this decrease on the rates of thromboembolism. Such an analysis would require a substantial sample size, given the low risk of thromboembolism with this device, which we have yet to accrue since making the change. We, therefore, feel that the above statement by Suarez et al1 is misleading and that clinicians should still assess the individual risks for bleeding and thromboembolism for each patient when deciding on the appropriate target INR range.

Disclosures

None.

Douglas L. Jennings, PharmD, BCPS
Department of Pharmacy Services
Henry Ford Hospital
Detroit, MI

References

Letter by Jennings Regarding Article, "Mechanisms of Bleeding and Approach to Patients With Axial-Flow Left Ventricular Assist Devices"
Douglas L. Jennings

Circ Heart Fail. 2012;5:e102
doi: 10.1161/CIRCHEARTFAILURE.112.970939

The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://circheartfailure.ahajournals.org/content/5/6/e102

Permissions: Requests for permissions to reproduce figures, tables, or portions of articles originally published in Circulation: Heart Failure 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 Circulation: Heart Failure is online at:
http://circheartfailure.ahajournals.org//subscriptions/