operating characteristic curve should remain constant or increase with the threshold, which was not the case in the study by Biais *et al.*[1] For all of these reasons, we strongly suspect that some recruitment biases could have occurred.

Finally, some studies have previously evaluated the diagnostic accuracy of a transient positive end-expiratory pressure elevation, identified as a recruitment maneuver, to diagnose preload responsiveness. Such diagnostic approaches were similar to those proposed by the authors and should have been discussed.[6–8] Diagnostic studies are at a high risk for biases,[9] and the methodologic considerations above highlight a risk of bias in the study by Biais *et al.*[1]

Competing Interests

The authors declare no competing interests.

Matthias Jacquet-Lagrèze, M.D., Guillaume Izaute, M.D., Jean-Luc Fellahi, M.D., Ph.D. Hôpital Louis Pradel, Hospices Civils de Lyon, Lyon, France (M.J.-L.). matthias.jl@gmail.com

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In Reply:

We thank Dr. Jacquet-Lagrèze *et al.* for their interest in our recent article[1] and are happy to respond to their comments.

We fully agree with Dr. Jacquet-Lagrèze *et al.* on the pivotal value of Standards for Reporting Diagnostic Accuracy Studies[2] to improve the quality of diagnostic accuracy studies. As clearly mentioned in the article, inclusions were conducted over a 1-yr period among nonconsecutive patients, and only 28 patients were included. As stated in the Discussion section, we therefore cannot exclude the possibility of selection bias.

We respectfully fully disagree with Dr. Jacquet-Lagrèze *et al.* when they claimed that the studies cited in the article do not support the rationale to define responders to volume expansion as an increase of stroke volume of 10% or more. We invite the authors to read these recommendations[3,4] carefully and many other publications on the subject.[5]

The least significant change has not been yet evaluated for proAQT system (Pulsion Medical Systems, Feldkirchen, Germany). However, the algorithm for pulse contour analysis of the proAQT system is the same as that of the PiCCO system (Pulsion Medical Systems). The main difference between these two devices lies in cardiac output calibration (*i.e.*, transpulmonary thermodilution for the PiCCO and specific algorithm without external method for the proAQT system). Previous studies demonstrated that the proAQT pulse contour analysis algorithm was able to detect changes in cardiac output as small as 5.0% during an end-expiratory occlusion test,[6] 10.0% during a passive leg raising test,[7] 9.5% during a respiratory cycle,[8] and, even more recently, 6.0% during a mini-fluid challenge.[9] Although we fully concur with the authors that additional research is warranted, our data remain nevertheless in line with most recent literature.

Finally, we apologize to the authors for having omitted some significant contributions. However, most of them were unavailable at the time of the submission process without, from our point of view, providing added value (postoperative setting, positive end expiratory pressure elevation in septic patients, mean arterial pressure monitoring, pulmonary elimination of carbon dioxide, *etc.*).

Competing Interests

Dr. Biais received honoraria from Edwards Lifesciences (Irvine, California) and Pulsion Medical Systems (Feldkirchen, Germany) as a lecturer. Dr. Futier received honoraria from Dräger AG (Lübeck, Germany), GE Healthcare (Little Chalfont, United Kingdom), and Fresenius Kabi (Bad Homburg vor der Höhe, Germany) as a lecturer and travel reimbursement by Fisher & Paykel Healthcare (Auckland, New Zealand). The other authors declare no competing interests.

Matthieu Biais, M.D., Ph.D., Emmanuel Futier, M.D., Ph.D., Bruno Pereira, Ph.D., Karine Nouette-Gaulain, M.D., Ph.D. Bordeaux University Hospital, Bordeaux, France (M.B.). matthieu.biais@chu-bordeaux.fr

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Clarification: Current Status of Neuromuscular Reversal and Monitoring, Challenges and Opportunities

To the Editor:

We are writing to clarify certain statements and information provided in a recent review of neuromuscular reversal and monitoring.[1]

The article stated that, "The GE Healthcare E-NMT-01 module was recalled by the FDA in 2014." To clarify, GE Healthcare initiated the recall voluntarily, and the announcement appeared on the U.S. Food and Drug Administration Web site. This voluntary recall action entailed technology correction and replacement of all modules in the field. It was completed September 28, 2015. The GE Healthcare NeuroMuscular Transmission (NMT) module is commercially available. Additional information is available on the U.S. Food and Drug Administration Web site.[2]

The article also incorrectly showed that the GE Healthcare M-NMT module has only a kinemyography sensor and that the E-NMT module has only an electromyography sensor. To clarify, both the M-NMT and E-NMT modules had interchangeable electromyography and kinemyography sensors. The M-NMT module is no longer manufactured and was replaced by the currently available E-NMT module. We emphasize the clinical benefits that can be afforded from routine use of objective neuromuscular monitors.[3,4]

Research Support

Support was provided solely from institutional and/or departmental sources.

Competing Interests

Ms. Hyman is employed by GE Healthcare (Chicago, Illinois). Dr. Brull is a shareholder and member of the Board of Directors of Senzime AB (Uppsala, Sweden).

Elise C. Hyman, B.A., Sorin J. Brull, M.D., F.C.A.R.C.S.I.
GE Healthcare, Madison, Wisconsin (E.C.H.). Elise.Hyman@ge.com

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