ICU
MANAGEMENT & PRACTICE

Study Investigates the Utility of Masimo SpHb® in Post-operative Red RBC Transfusion Best Practices

Masimo announced today the findings of an abstract presented at the 2018 Annual Meeting of the Network for the Advancement of Patient Blood Management, Haemostatis and Thrombosis (NATA), in which researchers investigated the utility of Masimo noninvasive and continuous hemoglobin (SpHb®) in supporting and enhancing red blood cell (RBC) transfusion best practices as part of post-operative patient blood management (PBM).

In the study, Prof. Baricchi and colleagues in the Transfusion Medicine Unit, AUSL-IRCCS of Reggio Emilia and at the Department of Medicine and Surgery at the University of Parma, Italy, sought to evaluate the appropriateness of post-operative RBC transfusion over a three-year period (2013-2015), before and after implementation of a patient blood management (PBM) program. The PBM policy consisted of three months of training followed by the introduction of noninvasive, continuous point-of-care (POC) monitoring of patient hemoglobin using Masimo SpHb on Masimo Radical-7® Pulse CO-Oximeters®. An initial audit of RBC transfusion appropriateness was conducted prior to the introduction of the PBM policy, on 168 patients. A final audit, after the policy was in place, was conducted on 205 patients. To determine transfusion appropriateness, investigators used the guidelines established by the Italian Society of Transfusion Medicine and Immunohaematology (SIMTI).

The researchers found that prior to the introduction of the PBM policy, 37.7% of RBC transfusions were appropriate. After the introduction of the PBM policy, including use of noninvasive and continuous hemoglobin monitoring with Masimo SpHb, they found 65.4% of RBC transfusions were appropriate, a significant increase in transfusion appropriateness.

The researchers concluded that, “In our experience, the PBM strategies introduced improved RBC transfusion appropriateness in the post-operative period. We believe that our PBM policy and introduction of POC testing are a valuable support for the healthcare workers in the transfusion decision-making process. This enhancement of transfusion appropriateness implies clinical and managerial advantages, such as reduced transfusion-related risks, optimization of the health care resources and reduction of the costs.”

SpHb is not intended to replace laboratory blood testing. Clinical decisions regarding red blood cell transfusions should be based on the clinician’s judgment considering among other factors: patient condition, continuous SpHb monitoring, and laboratory diagnostic tests using blood samples.

Reference
Baricchi R, Marraccini C, Merolle L, Berni P, Bonini A, Mazzi A, Pertinhez T.A., and Di Bartolomeo E. Patient blood management: transfusion appropriateness in the postoperative period. Proceedings from the 2018 NATA Annual Meeting, Lisbon, Portgual. #P30.

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