First Published Study on Masimo Acoustic Respiration Rate Demonstrates Significantly Higher Patient Tolerance and Similar Accuracy Compared to Capnometry in Post-Surgical Patients

The Associated Press

Masimo (NASDAQ: MASI) announced today a new study published in the May 2012 edition of the British Journal of Anaesthesia demonstrates that Masimo's acoustic respiration rate (RRaT) from rainbow@ Acoustic Monitoring provides similar respiration rate accuracy as capnometry for extubated patients.(1) Respiratory depression is common during early postoperative periods, especially after extubation (removal of the breathing tube) and when narcotic analgesics are required for pain management.(2) Delayed detection of respiratory depression increases the risk of major neurological damage and death. Continuous monitoring of oxygenation and ventilation is recommended for all patients after general anesthesia.(3) Capnometry is commonly used for intubated patients but in extubated patients, capnometry requires a nasal cannula or face mask that may be poorly tolerated or can be dislodged, leading to errors in data acquisition and false alarms.(4,5) In the study, conducted at the University Hospital of Poitiers, France, researchers evaluated 52 post-surgical patients in the post-anesthesia care unit and compared the accuracy of RRa (Masimo Rad-87@ with rainbow@ Acoustic Sensors) and capnometry using a face mask (Oridion Capnostream 20T with Oridion CapnomaskT). Patients were monitored for 16 to 60 minutes over a range of 6 to 24 breaths per minute, for a total of 99,002 data pairs. Differences in respiration rate of >4 bpm for 20 seconds or more between the two devices led to 28 clinical assessments of respiration rate, with 46% of errors attributed to the capnometer, 36% to RRa, and 18% to both methods.

Events that negatively affected the accuracy of respiration rate included speaking (11 capnometry, 4 RRa), moving (6 capnometry, 1 RRa), and coughing (5 capnometry, 0 RRa). Comparing the bias of each subject between RRa and capnometry demonstrated limits of agreement for RRa of -1.4 to +1.4 breaths per minute.

Researchers concluded that, "monitoring postoperative respiration rate in extubated patients with an acoustic monitoring device is as accurate as capnometry through an adapted oxygen mask and may be a good alternative to time-consuming clinical assessment. The acoustic sensor was well tolerated while the face mask was removed by eight patients, leading to study discontinuation in two patients. The device appears to be well-tolerated and no more subject to error than capnometry." Masimo's RRa allows clinicians to noninvasively and continuously assess patients' breathing - facilitating earlier detection of respiratory compromise and patient distress. RRa measures respiration rate using an innovative adhesive sensor with an

integrated acoustic transducer that is easily and comfortably applied to the patient's neck.

(1) Mimoz O, Benard T, Gaucher A, Frasca D, Debaene B. "Accuracy of Respiratory Rate Monitoring Using a Noninvasive Acoustic Method after General Anaesthesia." Br. J. Anaesth. May 2012; 108(5):872-875 Available online (2) Weiser TG, Regenbogen SE, Thompson KD, et al. "An Estimation of the Global Volume of Surgery: A Modeling Strategy Based on Available Data." Lancet 2008; 372:139-44.

(3) "Practice guidelines for Postanesthetic Care: A Report by the American Society of Anesthesiologists Task Force on Postanesthetic Care." AnesthesiologyMarch 2002; 96:742-52.

(4) Miner JR, Heegaard W, Plummer D. "End-Tidal Carbon Dioxide Monitoring During Procedural Sedation." Acad Emerg Med 2002; 9:275-80.

(5) Wilson J, Keeling P, Wright K, Woods J. "Thoraco-Abdominal Impedance Monitoring of Respiratory Rate During Sedation." Anaesthesia 2009; 64:1025-6.

About Masimo Masimo (NASDAQ: MASI) is the global leader in innovative noninvasive monitoring technologies that significantly improve patient care-helping solve "unsolvable" problems. In 1995, the company debuted Measure-Through Motion and Low Perfusion pulse oximetry, known as Masimo SET@, which virtually eliminated false alarms and increased pulse oximetry's ability to detect life-threatening events. More than 100 independent and objective studies demonstrate Masimo SET provides the most reliable SpO2 and pulse rate measurements even under the most challenging clinical conditions, including patient motion and low peripheral perfusion. In 2005, Masimo introduced rainbow SET@ Pulse CO-OximetryT technology, allowing noninvasive and continuous monitoring of blood constituents that previously required invasive procedures, including total hemoglobin (SpHb@), oxygen content (SpOCT), carboxyhemoglobin (SpCO@), methemoglobin (SpMet@), and Pleth Variability Index (PVI@), in addition to SpO2, pulse rate, and perfusion index (PI). In 2008, the company introduced Masimo Patient SafetyNetT, a remote monitoring and wireless clinician notification system designed to help hospitals avoid preventable deaths and injuries associated with failure to rescue events. In 2009, Masimo introduced rainbow Acoustic MonitoringT, the first-ever noninvasive and continuous monitoring of acoustic respiration rate (RRaT).

Masimo's rainbow SET technology platform offers a breakthrough in patient safety by helping clinicians detect life-threatening conditions and helping guide treatment options. In 2010, Masimo acquired SEDLine@, a pioneer in the development of innovative brain function monitoring technology and devices. Masimo SET and Masimo rainbow SET technologies can be also found in over 100 multiparameter patient monitors from over 50 medical device manufacturers around the world. Founded in 1989, Masimo has the mission of "Improving Patient Outcome and Reducing Cost of Care ... by Taking Noninvasive Monitoring to New Sites and Applications@." Additional information about Masimo and its products may be found at www.masimo.com.

Forward-Looking Statements This press release includes forward-looking statements as defined in Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, in connection with the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations about future events affecting us and are subject to risks and uncertainties, all of which are difficult to predict and many of which are beyond our control and could cause our actual results to differ materially and adversely from those expressed in our forward-looking statements as a result of various risk factors, including, but not limited to: risks related to our assumptions of the repeatability of clinical results obtained using the new Masimo Pronto-7 and noninvasive sensor sizes, risks related to our belief that the Pronto-7 enables quick and easy noninvasive spot-checking of hemoglobin (SpHb@), SpO2, pulse rate, and perfusion index at the point-of-care for all patients, as well as other factors discussed in the "Risk Factors" section of our most recent reports filed with the Securities and Exchange Commission ("SEC"), which may be obtained for free at the SEC's website at www.sec.gov. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we do not know whether our expectations will prove correct. All forward-looking statements included in this press release are expressly qualified in their entirety by the foregoing cautionary statements. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of today's date. We do not undertake any obligation to update, amend or clarify these statements or the "Risk Factors" contained in our most recent reports filed with the SEC, whether as a result of new information, future events or otherwise, except as may be required under the applicable securities laws.

Media Contact: Mike Drummond Masimo Corporation Phone: (949) 297-7434 Email: mdrummond@masimo.com Masimo, SET, Signal Extraction Technology, Improving Patient Outcome and Reducing Cost of Care ... by Taking Noninvasive Monitoring to New Sites and Applications, rainbow, SpHb, SpOC, SpCO, SpMet, PVI, rainbow Acoustic Monitoring, RRa, Radical-7, Rad-87, Rad-57, Rad-8, Rad-5, Pulse CO-Oximetry, Pulse CO-Oximeter, Adaptive Threshold Alarm, and SEDLine are trademarks or registered trademarks of Masimo Corporation.

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