Masimo SET®: Clinically Proven

"I saw and was conquered. I was not able to defeat the Masimo SET® pulse oximeter using all the motion and low pulse tricks I know. This technology is most impressive and should be available in all oximeters."

John Severinghaus, M.D.

Professor of Anesthesiology, Emeritus
University of California, San Francisco

Masimo continues to innovate and in 2019 introduced improved SpO2 accuracy with RD SET® sensors of 1.5% A_{RMS}* to provide clinicians with greater confidence when monitoring oxygen status during motion and no-motion conditions. Previous studies utilised sensors with SpO2 accuracy of 3% A_{RMS} during motion.

* A_{RMS} accuracy is a statistical calculation of the difference between device measurements and reference measurements. Approximately two-thirds of the device measurements fell within ± A_{RMS} of the reference measurements in a controlled study.

Over 100 independent and objective studies have shown that Masimo SET® outperforms other pulse oximetry technologies.[1]

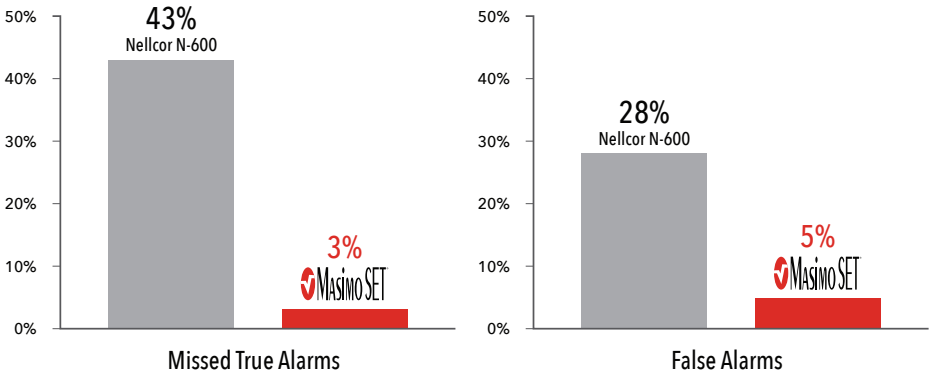
> On a post-surgical unit it was found that:

- Rescue calls and ICU transfers were **reduced by 65% and 48%,** respectively, after the implementation of continuous surveillance monitoring with Masimo SET®.[2]
- Over five years, clinicians achieved their goal of **zero preventable deaths** or brain damage due to opioids.[3]
- Over ten years, clinicians maintained a **50% reduction** in unplanned transfers and a **60% reduction** in rescue events, despite increases in patient acuity and occupancy.[4]

Performance During Motion and Low Perfusion

> Masimo SET® had **3% missed true alarms and 5% false alarms** versus 43% and 28%, respectively, when using competitor technology.

Performance During Motion and Low Perfusion



Shah et al. *J Clin Anesth.* 2012;24(5):385-91.

Results shown are calculated by combining sensitivity and specificity outcomes of machine-generated and volunteer-generated motion.

Masimo

The Performance of Masimo SET®

> In a PACU, Masimo SET® had a greater than **50% reduction** in false alarms compared to other pulse oximetry technology.[5]

> In a study of 122,738 infants, critical congenital heart disease (CCHD) screening sensitivity increased from **77% to 93%** with the combined use of Masimo SET® and clinical assessment.[6]

> In a study of 39,821 infants, CCHD screening sensitivity increased from **63%** with physical exam alone to **83%** with physical exam and Masimo SET® pulse oximetry.[7]

> In two NICU settings, Masimo SET®, coupled with changes in clinical practice, showed significantly **reduced rates of severe retinopathy of prematurity (ROP)** and decreased the need for laser treatment.[8,9]

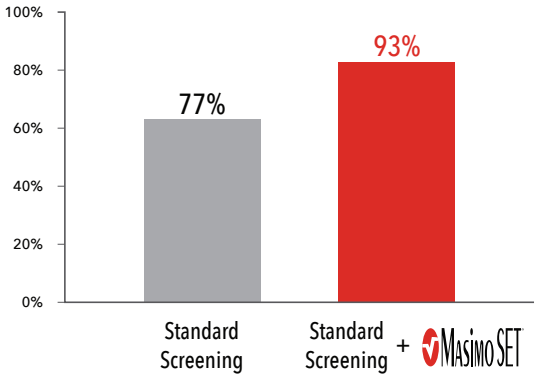
> Researchers showed time to **reliable oxygen saturation readings during neonatal resuscitation** was approximately **50 seconds faster** using Masimo SET® than using other pulse oximetry technologies.[10]

CCHD Screening

> When combined with clinical assessment, Masimo SET® **improved** critical congenital heart disease (CCHD) screening sensitivity to 93%.

Zhao et al. *Lancet*. 2014 Aug 30;384(9945):747-54.

Improved Critical Congenital Heart Disease Screening Sensitivity vs. Clinical Assessment Alone

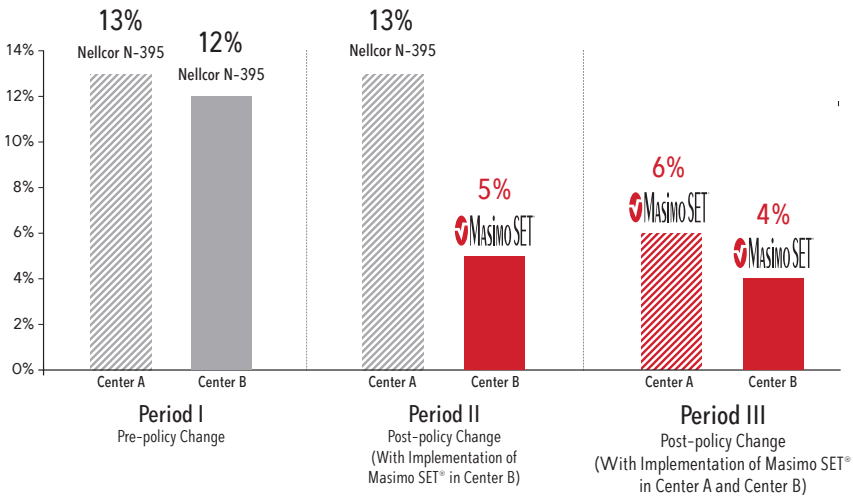


Retinopathy of Prematurity

> Masimo SET®, coupled with changes in clinical practice, led to a significant **reduction** in rates of severe retinopathy of prematurity (ROP).

Castillo et al. *Acta Paediatr*. 2011 Feb;100(2):188-92.

Severe Retinopathy of Prematurity Rate



[1] Published clinical studies on pulse oximetry and the benefits of Masimo SET® can be found on our website at http://www.masimo.com. Comparative studies include independent and objective studies which are comprised of abstracts presented at scientific meetings and peer-reviewed journal articles. [2] Taenzer AH et al. Impact of pulse oximetry surveillance on rescue events and intensive care unit transfers: a before-and-after concurrence study. *Anesthesiology* 2010:112(2):282-287. [3] Taenzer A et al. Postoperative Monitoring – The Dartmouth Experience. *Anesthesia Patient Safety Foundation Newsletter*. Spring-Summer 2012. [4] McGrath S et al. Surveillance Monitoring Management for General Care Units: Strategy, Design, and Implementation. *The Joint Commission Journal on Quality and Patient Safety*. 2016 Jul;42(7):293-302. [5] Malviya S et al. False Alarms and Sensitivity of Conventional Pulse Oximetry Versus the Masimo SET® Technology in the Pediatric Postanesthesia Care Unit. *Anesth Analg* 2000; 90(6):1336-1340. [6] Zhao et al. Pulse oximetry with clinical assessment to screen for congenital heart disease in neonates in China: a prospective study. *Lancet* 2014 Aug 30;384(9945):747-54. [7] de-Wahl Granelli A et al. Impact of pulse oximetry screening on the detection of duct dependent congenital hear disease: a Swedish prospective screening study in 39,821 newborns. *BMJ* 2009;338:a3037. [8] Castillo et al. Prevention of retinopathy of prematurity in preterm infants through changes in clinical practice and SpO2 Technology. *Acta Paediatr*. 2011 Feb;100(2):188-92. [9] Sola et al. Can changes in clinical practice decrease the incidence of severe retinopathy of prematurity in very low birth weight infants? *Pediatrics* 2003;111(2):339-345. [10] Baquero H et al. Avoiding Hyperoxemia during Neonatal Resuscitation: Time to Response of Different SpO2 Monitors. *Acta Paediatr*. 2011 Apr;100(4):515-8.

For professional use. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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