

Masimo SET® and PVi®

Reduce Costs and Improve the Process of Care



“Implementation of surveillance with pulse oximetry was associated with a reduced need for patient rescue and intensive care unit transfer.”⁴

Andreas Taenzer, MD
Dartmouth-Hitchcock Medical
Center, United States

Studies have shown efficiency gains following the implementation of Masimo SET® pulse oximetry and PVi (Pleth Variability Index) in a variety of clinical settings

With Masimo SET® Pulse Oximetry

Includes reductions in sensor usage, arterial blood gas testing, oxygen requirements, and false alarms

34% Reduction in arterial blood draws in critically ill patients¹

40% Reduction in oxygen requirements in the ICU setting²

93% Reduction in false alarms with higher specificity³

With Masimo Patient SafetyNet™* Continuous Monitoring System

Based on a 36-Bed Orthopedic Unit

65% Reduction in rapid-response rescues with implementation of patient surveillance monitoring system^{4,5}

48% Reduction in ICU transfers following piloting of Patient SafetyNet in the general ward^{4,5}

With Masimo PVi

Based on 198 surgical patients

32% Reduction in patient length of stay (from 6.8 days to 4.6 days) when using PVi as part of an enhanced recovery after surgery (ERAS) protocol⁶

¹ Durbin C.G. Jr., Rostow S.K. More Reliable Oximetry Reduces the Frequency of Arterial Blood Gas Analyses and Hastens Oxygen Weaning after Cardiac Surgery: A Prospective, Randomized Trial of the Clinical Impact of a New Technology. *Crit Care Med.* 2002 Aug;30(8):1735-40. ² Patel D.S., Rezkalla R. Weaning protocol possible with pulse oximetry technology. *Advance for Resp Care Managers.* 2000; 9(9):86. ³ Shah N., Ragaswamy H.B., Govindugari K., Estanol L. Performance of Three New-Generation Pulse Oximeters During Motion and Low Perfusion in Volunteers. *J Clin Anesth.* 2012;24(5):385-91. ⁴ Taenzer A.H., Pyke J.B., McGrath S.P., Blike G.T. 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. ⁵ Taenzer A.H., Blike G.T. *APSF Newsletter* 2012. Available at: http://www.apsf.org/newsletters/html/2012/spring/01_postop.htm. Accessed June 14, 2012. ⁶ Thiele RH et al. Standardization of Care: Impact of Enhanced Recovery Protocol on Length of Stay, Complications, and Direct Costs After Colorectal Surgery. *J Am Coll Surg.* 2015 Apr;20(4):430-443. ⁷ Dasta J.F., et al. Daily cost of an intensive care unit day: the contribution of mechanical ventilation. *Crit Care Med.* 2005 Jun;33(6):1266-71. ⁸ Wunsch H, et al. ICU Occupancy and mechanical ventilator use in the United States. *Crit Care Med.* 2013 Dec;41(12):2712-9. * The use of the trademark Patient SafetyNet is under license from University Health System Consortium.



Potential for Reduced Costs with Implementation of Masimo Solutions

Potential Annual Cost Savings with Masimo SET® Pulse Oximetry, Patient SafetyNet, and PVi	
Reduction in arterial blood gas testing ¹ <i>(Masimo SET® compared to conventional pulse oximetry)</i>	\$77,520 [†]
Reduction in ventilator time ^{2,7,8} <i>(Masimo SET® compared to conventional pulse oximetry)</i>	\$266,450 [†]
False alarm distraction productivity savings ³ <i>(Masimo SET® compared to conventional pulse oximetry)</i>	\$180,180 [†]
Reductions in ICU transfers in 36-bed step-down unit due to continuous surveillance monitoring with Patient SafetyNet, including SET® pulse oximetry ^{4,5}	\$1,479,012
Reduction in length of stay due to using PVi in an enhanced recovery after surgery (ERAS) protocol ⁶	\$777,061
Total Potential Annual Cost Savings	\$2,780,223

**Masimo SET® + Patient SafetyNet + PVi:
More than \$2.5 Million in Potential Annual Cost Savings**

[†]Estimates based on a 250-bed hospital model

Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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