

Conversion to Masimo SET Pulse Oximetry - Analysis of Staff Satisfaction and Patient Safety Following Conversation

Lekites K, Jackvony R. *Respir Care*. 2002;47 (9): 1088.

Introduction

The process of a hospital converting to a new technology can be an onerous task for healthcare providers due to the duration of the installation process, the time required learning to utilize the new technology and in some cases unmet expectations as to the benefits of the new technology. For these reasons hospital staff may be reluctant to invest in new technologies. Contrary to these perceptions, several studies have documented the benefits of converting to Masimo SET pulse oximetry for the care of adult patients. Here, Lekites and Jackvony evaluate staff perceptions of Masimo SET pulse oximetry for the care of infants, following conversion of their Level II and Level III NICUs .

Methods

Twelve months after the conversion of the 60 bed, Level III NICU and the 16 bed Level II NICU to Masimo SET pulse oximetry, a survey was administered to the NICU clinical staff (RNs, RRTs) to evaluate staff satisfaction, clinical practice patterns and perceptions of patient safety. The survey questions allowed for a response of "Agree", "Clinically no difference" or "Disagree" with each statement. Forty six clinicians responded to the survey. Chi-square analysis was used to test the distribution of results, with $p < 0.05$ considered significant.

Results

n = 46 respondents	% Agree	% Disagree
Ease of application of the sensor	87	13
The combination of decreased false alarms and increased confidence in oximetry values has resulted in less distractions while caring for other infants	68	32
Changing to Masimo SET has resulted in less handling of infants to obtain reliable SpO ₂ values	82	18
I have a greater sense of patient safety since changing to Masimo	81	19
Titration of delivered oxygen to the patient is easier since changing to Masimo	88	12
I have a greater sense of monitoring reliability since changing to Masimo	84	16
There has been less parental anxiety concerning false alarms and the reliability of the monitor since changing to Masimo	71	29
If I were transferred to another nursing unit, I would encourage conversion to Masimo oximetry	85	15

The results were significantly different from a random distribution with most respondents agreeing that the conversion to Masimo SET pulse oximetry resulted in greater staff satisfaction with patient monitoring and improved patient care and safety.

Authors' Conclusions

"After having used Masimo SET pulse oximetry in our NICU, our staff reports significant staff satisfaction and improved patient safety. They also perceive changes in their practice using this new technology, specifically in ease of management/titration of F_iO₂ levels. A significantly greater number of staff members agreed that they would recommend Masimo oximetry if they were transferred to another unit."