New technology "right under our nose" -Assurance® Alar One-Sense™ to be highlighted at annual ASA

PR Newswire

Xhale Assurance, Inc., developer of the unique Assurance® Alar One-Sense™ Pulse Oximetry Sensor, today announced that its new Alar One-Sense™ Sensor will be highlighted in three clinical research presentations at the American Society of Anesthesiologists (ASA) annual meeting in San Francisco, October 12-14, 2013. The ASA conference, ANESTHESIOLOGY™ 2013, is the most comprehensive anesthesia-related educational event in the world, with 10,000 anesthesiologists expected to attend.

Xhale Assurance, Inc. will be exhibiting at the meeting, showcasing its new Alar One-Sense™ Sensor, introduced in May of this year. The Alar-One Sense™ Sensor detects blood-oxygen saturation and heart rate, and soon breath-to-breath respiratory rate, at the nasal ala, the fleshy lateral part of the nostril[2]. This site is attractive for pulse oximetry measurement because of the rich perfusion by branches of both the external and internal carotid arteries. The nasal ala provides pulse oximetry signals when traditional finger sensors fail, such as when there is diminished perfusion to the extremities, a condition that studies have identified in nearly 80% of at-risk patient populations[1].

Andrew E. Kersey, President of Xhale Assurance, Inc. stated, "Research has shown the Alar One-Sense™ Sensor detects desaturations and recovery up to 30-60 seconds faster than finger sensors[2]. Being able to reliably deliver the earliest indication of change in oxygenation status is important when monitoring critical or anesthetized patients."

Alar One-Sense™ Sets a Higher Clinical Standard –While prior research has already shown the Alar One-Sense™ Sensor to be more accurate and reliable than pulse oximetry devices using finger clip sensors[3], new research studies being presented at the ANESTHESIOLOGY™ 2013 conference goes on to demonstrate effectiveness of the Alar One-Sense™ Sensor in detecting significant elements of patient respiratory status including: breath-to-breath respiratory rate, respiratory depression and respiratory effort (airway obstruction), and disordered breathing including apnea and hypopnea.

Mr. Kersey continued, "The unique monitoring location at the nasal ala enables measurement of a range of additional parameters with this Single Point of Contact sensor. This capability is unmatched by traditional pulse oximetry meeting a clear, as yet unmet clinical need for real-time data on critical physiological processes and patient safety. We believe our continued innovation in these areas of critical market need will create a strong platform for future growth."

Richard J. Melker, PhD, MD and Chief Technology Officer of Xhale Assurance, Inc. commented, "The studies being presented at the ASA meeting add to our growing body of research, demonstrating the clinical performance and efficacy of the alar sensor for both pulse oximetry and for measurement of additional physiologic parameters. Alar photoplethysmography can detect individual breaths and provide information on respiratory patterns. This information is critical for early detection of opioid-induced respiratory depression, a life-threatening problem that can occur with patients receiving post-operative opioid pain control therapy including patient controlled analgesia (PCA)."

The abstracts being presented include:

Robust Respiratory Rate Detection Using Alar Photoplethysmography and a Thermistor. Cohen S, et al. The nasal ala allows the monitoring of alar pulse oximetry and airway flow with a single integrated sensor, providing robust respiratory rate determination. (Abstract A1178)

Detection of Airway Obstruction Using Alar Photoplethysmography. Melker RJ, et al. Indices derived from the photoplethysmography signal can be used to detect airway obstruction, an indicator of impending respiratory failure in non-intubated spontaneously breathing patients. (Abstract A1184)

Disordered Breathing Detected During Ambulatory Surgery Using an Alar Sensor. Morey T, et al. Alar pulse oximetry was used to identify mini-desaturations, desaturations, apnea, hypopnea, ataxic breathing and airway obstruction. Sleep disordered breathing is an indicator of Obstructive Sleep Apnea (OSA) which is estimated to affect 1 in 5 people and a safety concern in post surgical patients on opioid pain control therapy[4]. (Abstract A3164)

1. Davis DP, et al. Latency and loss of pulse oximetry signal with the use of digital probes during prehospital rapid-sequence intubation. *Prehosp Emerg Care.* 15(1):18-22. Epub 2010-Sep21.
2. Melker RJ, et al. Earlier detection of desaturation from the nasal ala during MAC. Post Graduate Assembly in Anesthesia. Dec 2013.
3. Comparative Desaturation Study performed at Xhale Assurance, Inc. and University of Florida, 2012. Data on file at Xhale Assurance, Inc.
4. http://en.wikipedia.org/wiki/Obstructive_sleep_apnea [1]

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[1] http://en.wikipedia.org/wiki/Obstructive_sleep_apnea