



## New Study Evaluates Waste Anesthetic Gases in the Post-Anesthesia Care Unit

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### **Data Confirms ISO-Gard® Mask with ClearAir™ Technology from Teleflex Helps Reduce WAG Exposure to PACU Nurses**

WAYNE, Pa.--(BUSINESS WIRE)--Apr. 29, 2014-- Teleflex Incorporated (NYSE: TFX): A study published in the *Journal of PeriAnesthesia Nursing* (JOPAN) documents occupational exposure to waste anesthetic gases (WAG) in the post-anesthesia care unit (PACU) may be higher than standards recommend. The study evaluated and demonstrated that perianesthesia nurses are exposed to significantly less WAG when patients wear a new, first-of-its-kind scavenging mask, the ISO-Gard Mask with ClearAir Technology from Teleflex, versus a standard cannula or face tent.

Advances in infrared videography enable visualization of possible WAG in the PACU for the first time. Using this innovative technology, a pilot study correlated video from an infrared camera with quantitative data from an IR spectrophotometer to evaluate the effectiveness of a new scavenging system, the ISO-Gard Mask with ClearAir Technology, to control WAG in the PACU.

"The scavenging system (the ISO-Gard Mask from Teleflex) used in our published study at a Midwest hospital showed significant reductions in nitrous oxide and sevoflurane in the PACU," said James D. McGlothlin, MPH, Ph.D., CPE. "I was not surprised by this as the mask is well designed in form and function. What did surprise me was the accumulation of nitrous oxide and sevoflurane in this PACU as the day progressed when this scavenging system was not used. Based on the data we have at hand, it is good practice and policy to control Waste Anesthetic Gases at their source – the patient. The ISO-Gard Mask appears to do just that."

The study found that:

- WAG in the PACU can and does exceed the National Institute for Occupational Safety and Health (NIOSH) recommended exposure limits (RELs) within the work area of PACU nurses.
- Nurses experienced significantly lower exposure to nitrous oxide and sevoflurane when patients wore the ISO-Gard Mask with ClearAir Technology versus patients wearing only a nasal cannula or face tent.
- At both six inches and three feet from the patient, a statistically significant difference in exposure was recorded for nitrous oxide and sevoflurane. Average exposure to nitrous oxide was approximately 2.9 times greater at six inches from the patient's mouth and nose and 1.6 times greater at three feet for the nurses of patients in the control group than for the nurses of patients wearing the ISO-Gard Mask.
- Similar results were observed for sevoflurane, with average exposure approximately 2.7 times greater at six inches and 1.3 times greater at three feet for the control group than for those patients wearing the ISO-Gard Mask.
- For both nitrous oxide and sevoflurane, the highest exposure was within the first five minutes of the patient being transferred to the PACU, which is when PACU nurses deliver the most direct patient care and are closest to their patient's breathing zones.
- All patients still had WAG readings at the end of the 40-minute recording period.

Based on study findings, investigators state that along with engineering controls and best work practices, personal protective equipment, such as the ISO-Gard Mask, can be used to control WAG in the PACU, thereby promoting a safer work environment for PACU nurses.<sup>1</sup>

"The ISO-Gard Mask with ClearAir Technology exemplifies Teleflex's dedication to solving unmet medical needs and delivering positive outcomes for clinicians and patients through Purpose-Driven Innovation," said Cary Vance, President of the Teleflex Anesthesia and Respiratory Division. "Because the patient's exhalation is the primary source of WAG in the PACU, limiting it can be difficult. Today, the ISO-Gard Mask is the only solution available for 'source control' of WAG in the PACU."

The study is available at [http://www.jopan.org/article/S1089-9472\(14\)00029-X/abstract](http://www.jopan.org/article/S1089-9472(14)00029-X/abstract).

For more information on WAG and the ISO-Gard Mask with ClearAir Technology, please visit <https://www.theinvisiblelisk.org/>.

### **About Teleflex Incorporated**

Teleflex is a leading global provider of specialty medical devices for a range of procedures in critical care, urology and surgery. Our mission is to provide solutions that enable healthcare providers to improve outcomes and enhance patient and provider safety. Headquartered in Wayne, PA, Teleflex employs approximately 11,400 people worldwide and serves healthcare providers in more than 150 countries. Additional information about Teleflex can be obtained from the company's website at [teleflex.com](http://teleflex.com).

### **Forward-Looking Statements**

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements. Any forward-looking statements contained herein are based on our management's current beliefs and expectations, but are subject to a number of risks, uncertainties and changes in circumstances, which may cause actual results or company actions to differ materially from what is expressed or implied by these statements. These risks and uncertainties are identified and described in more detail in our filings with the Securities and Exchange Commission,

including our Annual Report on Form 10-K.

*The study was funded in part by a grant from Teleflex. A pre-market version of the ISO-Gard Mask was studied. The IRB study was not an outcome study to support an FDA submission.*

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Reference:

1. McGlothlin JD, Moenning JE, Cole, SS. Evaluation and Control of Waste Anesthetic Gases in the Postanesthesia Care Unit. *Journal of PeriAnesthesia Nursing*, published online 14 April 2014. Available at: [www.jpnan.org](http://www.jpnan.org).

Source: Teleflex Incorporated

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