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## Study Finds TaperGuard™ Line of Endotracheal Tubes Reduces Microaspiration - New Tapered Cuff May Decrease Common and Costly Pulmonary Complications

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Boulder, CO —February 12, 2010 – Covidien (NYSE: COV), a leading global provider of healthcare products and recognized innovator in mechanical ventilation and respiratory care devices, today announced results from a recent study suggesting that its Mallinckrodt™ TaperGuard™ line of endotracheal tubes reduces microaspiration by providing a more effective tracheal seal compared to other conventional endotracheal tubes. Microaspiration refers to aspiration of fluid, secretions and other materials that have leaked past the endotracheal tube cuff and into the lungs – a common problem in intubation that may lead to pulmonary complications.

Jan-Paul Mulier, M.D., Ph.D., recently presented data from the study at the New York State Society of Anesthesiologists PostGraduate Assembly (PGA) in Anesthesiology, held in New York City. The study investigated the outcomes of patients intubated with either a TaperGuard tube or conventional high-volume, low-pressure cuff during laparoscopic gastric bypass surgery. In the study, not one patient intubated with a TaperGuard tube (n = 11) had microaspiration secondary to leakage of fluid past the inflated cuff. In contrast, more than 40 percent of patients intubated with a conventional high-volume, low-pressure cuff (n = 9) exhibited clear evidence of microaspiration.

“The difference in leakage prevention rates is likely a result of the innovative shape of TaperGuard product’s cuff,” Dr. Mulier said. “The newly designed tapered cuff may improve the sealing rate over conventional barrel-shaped cuffs found on the most widely used endotracheal tubes, the Mallinckrodt™ Hi-Lo endotracheal tubes.”

Covidien also offers the TaperGuard Evac tube, which combines the innovative taper-shaped cuff design with Mallinckrodt Evac technology. When the TaperGuard cuff is paired with Mallinckrodt Evac technology, the TaperGuard Evac endotracheal tube reduces fluid leakage and microaspiration while offering secretion drainage through an integrated suction lumen to enhance secretion management capabilities and enable removal of secretions that may collect above the cuff.

“Microaspiration is always a possibility for intubated patients and may lead to post-intubation pulmonary complications, such as pneumonia,” said Douglas Hansell, M.D., M.P.H., Chief Medical Officer and Vice President, Respiratory and Monitoring Solutions, Covidien. “The advanced-design TaperGuard tube reduces microaspiration and has the potential to significantly reduce many of the risks associated with post-intubation pulmonary complications.”

An abstract of Dr. Mulier’s study, Tracheal Cuff Leak in Morbid Obese Patients Intubated with a TaperGuard, a Hi-Lo Cuffed or a Hi-Lo Cuffed and Lubricated Tracheal Tube, is available at: <http://www.nyssa-pga.org/>. Go to “PGA Meeting” in the navigation bar, and select “PGA Abstracts” in the drop-down menu.

### About Covidien

Covidien is a leading global healthcare products company that creates innovative medical solutions for better patient outcomes and delivers value through clinical leadership and excellence. Covidien manufactures, distributes and services a diverse range of industry-leading product lines in three segments: Medical Devices, Pharmaceuticals and Medical Supplies. With 2009 revenue of \$10.7 billion, Covidien has 42,000 employees worldwide in more than 60 countries, and its products are sold in over 140 countries. Please visit [www.covidien.com](http://www.covidien.com) to learn more about our business.

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Covidien provided certain supplies and loaned equipment for use in the above study.

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