

Postsurgical Pulmonary Complications Cost US Healthcare System \$11.9 Billion Annually



Covidien, a leading global provider of healthcare products and recognised innovator in mechanical ventilation and respiratory care devices, has announced the results of a study examining the financial impact of postoperative pulmonary complications (PPCs). The study, Postoperative Pulmonary Complications in the U.S, 2008, shows that these complications cost the US healthcare system approximately \$12 billion annually.

The study was conducted by Walter Linde-Zwirble of ZD Associates, a strategic healthcare analytics company, in conjunction with physicians in key clinical roles at Covidien's Respiratory and Monitoring Solutions business: Jonathan D. Bloom, M.D., Associate Director of Medical Affairs; Roger S. Mecca, M.D., Vice President, Medical Affairs, Solutions; and Douglas Hansell, M.D., M.P.H., Chief Medical Officer and Vice President.

The researchers reviewed postsurgical outcomes as recorded in the Premier Hospital database for 2008 and found that more than one in eight surgical patients suffered from postoperative pulmonary complications. They also found that PPCs were associated with two-thirds of deaths among post-op patients.

Postoperative pulmonary complications, which can range from relatively minor conditions to life-threatening disease states, are a significant source of morbidity and mortality. The PPCs identified in this study were pneumonia, respiratory failure, bronchospasm, tracheobronchitis, pleural effusion, pulmonary collapse, acute respiratory distress syndrome (ARDS) and pneumothorax. In addition, the occurrence of these PPCs can increase the cost of healthcare.

Projecting to national levels, the study determined that more than 1 million patients experienced a PPC in the US in 2008, and these cases were associated with 46,200 deaths, 2.9 million added days on the hospital floor, 1.9 million added ICU days and \$11.9 billion in additional costs.

Microaspiration, the entry of foreign material into the respiratory tract, is widely believed to be one of the primary causes of many pulmonary complications, including post-operative pneumonia and the most common hospital-acquired infection, ventilator-associated pneumonia. The Mallinckrodt™ TaperGuard™ endotracheal tube from Covidien provides a more effective tracheal seal against fluid leakage, reducing the risk of postoperative pulmonary complications associated with microaspiration.

"Postoperative pulmonary complications are a serious concern that put the patient and hospital at great risk," said Hansell. "At Covidien, we are committed to finding effective strategies for the prevention and management of PPCs in order to improve outcomes for patient and reduce costs for healthcare facilities."

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