

Supplemental Material

Appendix 1. Operational definitions of postoperative pulmonary complications

Grade Definition	
1	Cough, dry Microatelectasis: abnormal lung findings and temperature $> 37.5^{\circ}\text{C}$ without other documented cause; results of chest radiograph either normal or unavailable Dyspnea, not due to other documented cause
2	Cough, productive, not due to other documented cause Bronchospasm: new wheezing or preexistent wheezing resulting in change of therapy Hypoxemia: alveolar-arterial gradient > 29 and symptoms of dyspnea or wheezing Atelectasis: radiologic confirmation plus either temperature $> 37.5^{\circ}\text{C}$ or abnormal lung findings Hypercarbia, transient, requiring treatment, such as naxolone or increased manual or mechanical ventilation Adverse reaction to pulmonary medication (e.g. theophylline toxic reaction)
3	Pleural effusion, resulting in thoracentesis Pneumonia, suspected: radiologic evidence without bacteriologic evidence Pneumonia, proved: radiologic evidence and documentation of pathologic organism by Gram's stain or culture Pneumothorax Reintubation postoperatively, or period of ventilator dependence does not exceed 48 h
4	Ventilatory failure: postoperative ventilator dependence exceeding 48 h, or reintubation with subsequent period of ventilator dependence exceeding 48 h