**Supplemental Table S1. The criteria for postoperative pulmonary complications**

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| Complication | Definition |
| Respiratory infection | Patient has received antibiotics for a suspected respiratory infection and met one or more of the following criteria: new or changed sputum, new or changed lung opacities, fever, white blood cell count > 12 × 109 L-1 |
| Pleural effusion | Chest radiograph demonstrating blunting of the costophrenic angle, loss of sharp silhouette of the ipsilateral hemidiaphragm in upright position, evidence of displacement of adjacent anatomical structures or (in supine position) a hazy opacity in one hemithorax with preserved vascular shadows |
| Atelectasis | Lung opacification with a shift of the mediastinum, hilum or hemidiaphragm toward the affected area, and compensatory over-inflation in the adjacent non-atelectatic lung |
| Pneumothorax | Air in the pleural space with no vascular bed surrounding the visceral pleura |
| Respiratory failure  | Postoperative initiation of either noninvasive or invasive mechanical ventilation for oxygen therapy |
| Bronchospasm | Newly detected expiratory wheezing treated with bronchodilators |
| Aspiration pneumonitis | Acute lung injury after the inhalation of regurgitated gastric contents |