### **Supplementary TABLE 1.**

# The Melbourne Group Scale Version 2 (Criteria for Diagnosis of a Postoperative

### **Pulmonary Complication**)

Diagnosis confirmed when four or more of the following are present:

- Chest radiograph report of consolidation/collapse
- Raised temperature > 38°C on two or more consecutive days
- $\bullet$  Pulse oximetry saturation of oxygen (SpO<sub>2</sub>) < 90% on room air on two consecutive days
- Production of yellow or green sputum which is different to preoperative assessment
- $\bullet$  An otherwise unexplained white cell count  $> 11 \times 10^9~L^{-1}$  or prescription of an antibiotic specific for respiratory infection
- Physician diagnosis of chest infection
- Presence of infection on sputum culture report
- Abnormal breath sounds on auscultation which differ from preoperative assessment

#### **Supplementary TABLE 2.**

## **Definitions of Postoperative Pulmonary Complications**

Diagnosis confirmed by two independent doctors:

#### **Acute lung injury**

Acute onset of hypoxemia (partial pressure of oxygen in arterial blood [PaO<sub>2</sub>]/fraction of inspired oxygen [FIO<sub>2</sub>]  $\leq$  300 mmHg) with new bilateral infiltrates in the setting of either a normal pulmonary arterial wedge pressure (PAWP  $\leq$  18 mmHg) or the absence of suspected of left atrial hypertension when PAWP is not available.

### **Acute respiratory distress syndrome (ARDS)**

ARDS is a special type of acute lung injury. In the setting of more severe hypoxemia  $(PaO_2/FIO_2 \le 200 \text{ mmHg})$ , the term ARDS is applied.

#### Pleural effusion

Chest radiograph demonstrating blunting of the costophrenic angle, evidence of displacement of adjacent anatomical structures, or (in supine position) a hazy opacity in one hemithorax, with preserved vascular shadows.

#### **Atelectasis**

Collapse of the alveoli, lung opacification with shit of the mediastinum, hilum, or hemidiaphragm toward the affected area, and compensatory overinflation in the adjacent nonatelectatic lung.