

# Respiratory disease

## Respiratory disease

Postoperative respiratory complications, such as pneumonia, are a major cause of morbidity and mortality, especially after major abdominal and thoracic surgery. A patient's current respiratory status should be compared with their 'normal state'. Patients with severe disease are at risk of pneumonia and respiratory failure in the postoperative period. Severe disease would include patients with a forced expiratory volume in the first second (FEV<sub>1</sub>) of less than 30% of predicted value, dependence on oral steroid treatment, home ventilation or oxygen therapy or a PaCO<sub>2</sub> level of greater than 6 kPa. Patients should continue to use their regular inhalers until the start of anaesthesia. Brittle asthmatics may also need extra steroid cover. Encourage the patients to be compliant with the medications and stop smoking. Information should be provided to indicate perioperative risks associated with smoking. Stopping smoking reduces carbon monoxide levels and offers the patient a better ability to clear sputum. Evidence suggests that preoperative inspiratory muscle training significantly improves respiratory (muscle) function in the early postoperative period, reducing the risk of pulmonary complications. Regional anaesthetic techniques and less invasive surgical options should be considered in severe cases. Elective surgery should be postponed until acute exacerbations are treated. The patient should be referred to a respiratory physician if:

- there is a severe disease or significant deterioration;
- major surgery is planned in a patient with significant respiratory comorbidities;
- right heart failure is present – dyspnoea, fatigue, tricuspid regurgitation, hepatomegaly and oedematous feet;
- the patient is young and has severe respiratory problems (may indicate a rare condition).

Respiratory disease

Postoperative respiratory complications, such as pneumonia, are a major cause of morbidity and mortality, especially after major abdominal and thoracic surgery. A patient's current respiratory status should be compared with their 'normal state'. Patients with severe disease are at risk of pneumonia and respiratory failure in the postoperative period. Severe disease would include patients with a forced expiratory volume in the first second (FEV<sub>1</sub>) of less than 30% of predicted value, dependence on oral steroid treatment, home ventilation or oxygen therapy or a PaCO<sub>2</sub> level of greater than 6 kPa. Patients should continue to use their regular inhalers until the start of anaesthesia. Brittle asthmatics may also need extra steroid cover. Encourage the patients to be compliant with the medications and stop smoking. Information should be provided to indicate perioperative risks associated with smoking. Stopping smoking reduces carbon monoxide levels and offers the patient a better ability to clear sputum. Evidence suggests that preoperative inspiratory muscle training significantly improves respiratory (muscle) function in the early postoperative period, reducing the risk of pulmonary complications. Regional anaesthetic techniques and less invasive surgical options should be considered in severe cases. Elective surgery should be postponed until acute exacerbations are treated. The patient should be referred to a respiratory physician if:

- there is a severe disease or significant deterioration;
- major surgery is planned in a patient with significant respiratory comorbidities;
- right heart failure is present – dyspnoea, fatigue, tricuspid regurgitation, hepatomegaly and

oedematous feet; /uni25CF the patient is young and has severe respiratory problems (may indicate a rare condition).

---

Revision #1

Created 2025-12-31 15:10:41 UTC by Omar Ayman

Updated 2025-12-31 15:10:41 UTC by Omar Ayman