

Table 14: Practical Steps to Minimize the Likelihood of Barotrauma during Mechanical Ventilation

Use small tidal volumes in patients with obstructive lung disease or other cause for pulmonary hyperinflation

Decrease tidal volume as PEEP is increased

Use PEEP cautiously in patients at increased risk:

Unilateral, patchy, or cavitary lung disease

Nosocomial pneumonia or sepsis syndrome

ARDS late in clinical course (e.g. after 1-2 weeks)

Chronic obstructive pulmonary disease or asthma

Monitor respiratory system compliance during PEEP trials as a predictor of increased risk for alveolar rupture

Avoid or promptly correct right mainstem bronchus intubation

Avoid end-inspiratory pause

Keep I:E ratio low (short inspiration, long expiration)

Monitor patient for auto-PEEP; follow steps in figure 11.29 to reduce it if present