

Mechanical ventilation may be difficult in patients with status asthmaticus due to high positive pressures in the setting of high resistance to airflow due to airway obstruction. Most patients with asthma attacks present with hypocapnia due to a high respiratory rate. Normal or near-normal P_{CO_2} in a patient with asthma in respiratory distress should raise concerns of impending respiratory failure and need for mechanical ventilation. Mechanical ventilation should aim for low respiratory rates and/or ventilation volumes to decrease peak airway pressures. This can frequently be achieved by “permissive hypercapnia”—allowing the P_{CO_2} to rise and, if necessary, temporarily correcting critical acidosis with administration of fluids to increase the pH. Neuromuscular paralysis may sometimes be beneficial. Bronchoscopy to clear mucus plugs has been described but may be dangerous in the setting of difficulties with mechanical ventilation.

SPECIAL CONSIDERATIONS

■ HIGH-RISK ASTHMA PATIENTS

Three to four thousand people die from asthma in the United States each year. **Table 287-6** lists characteristics of patients at high risk for asthma death. These characteristics should be considered in evaluating and treating patients who present with asthma.

TABLE 287-6 Patients at Greater Risk for Asthma Mortality

1. History of intensive care unit admission for asthma
2. History of intubation for asthma
3. Illicit drug use
4. Depression
5. New diagnosis
6. ≥ 2 emergency unit visits in past 6 months
7. Severe psychosocial problems
8. Lower socioeconomic status
9. On daily prednisone prior to admission