

# BRO Bronchospasm

Wheezing, airway obstruction, hypoxia, difficult ventilation



## Start

1. Call for "ANESTHESIOLOGIST STAT"
2. Increase FiO<sub>2</sub> to 100%
  - ▶ If intubated: Manual bag ventilation
    - Evaluate pulmonary compliance (look for shark fin ETCO<sub>2</sub> waveform)
    - Identify all causes of high-circuit pressure
  - ▶ Consider need for intubation if clinically indicated
3. If cardiovascular instability and/or cutaneous signs
  - ▶ Consider anaphylaxis: Go to » CHKLST ANA
4. Evaluate depth of anesthesia
  - ▶ Consider increasing VOLATILE ANESTHETIC
    - Sevoflurane or Isoflurane preferred, AVOID Desflurane
  - ▶ Consider PROPOFOL bolus 0.5-1 mg/kg, or ketamine bolus 10-20 mg, gtt 1-3mg/kg/hr
5. Administer inhaled bronchodilators
  - ▶ ALBUTEROL via nebulizer or metered-dose inhaler
6. Administer GLUCOCORTICOID - Methylprednisolone IV
7. If significant hypotension...
  - ▶ Disconnect anesthesia circuit to rule-out Auto-peep
  - ▶ Consider Anaphylaxis: Go to » CHKLST ANA
8. Consider...
  - ▶ Chest X-Ray
  - ▶ Medications noted in pink box

### ▶ Critical Changes

If PEA develops: Go to » CHKLST CAA  
If ANAPHYLAXIS: Go to » CHKLST ANA

## DRUG DOSES and treatments

Albuterol	8-10 puffs MDI or 2.5 mg nebulized via ETT/Inspiratory Limb
Methylprednisolone	1mg/kg IV – or –
Hydrocortisone	200mg IV
Ipratropium Bromide	0.5mg via nebulizer
Magnesium Sulfate	2g IV over 20 min
EPIneprine	10-20 mcg IV or 2-10mcg/min IV
Lidocaine	1-2mg/kg IV or ETT
Ketamine	0.5-1mg/kg IV

## Differential Diagnosis

Anaphylaxis	Kinked or Obstructed Tube/Circuit
Inadequate Anesthesia	Mucous Plugging of Airway
Esophageal Intubation	Pulmonary Aspiration
Pulmonary Edema	Pneumothorax
Unilateral Wheezing:	Endobronchial Intubation or Foreign Body Obstruction

## CPR and Resuscitation

Airway	Assess and secure, confirm endotracheal intubation
Circulation	If hypotension, rule out auto-peep