

COPD and Asthma Exacerbation Treatment

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Diagnosis is generally clinical in patient with **dyspnea, wheezing, and disease history**. Both involve **airway inflammation and spasm**.

Core treatments

- 1) **Duoneb** includes **Albuterol** (β agonist) and **Ipratropium** (anti-muscarinic) -> \downarrow bronchospasm
- 2) **Systemic steroids** -> \downarrow inflammation *PO prednisone or IV methylprednisone*

COPD Extras

- 3) **BiPAP** decreases work of breathing and can \downarrow intubation and mortality rates
- 4) **Antibiotics** battle inflammation, infection often causes COPD exacerbations (azithromycin)

5 more treatments

- 5) **Magnesium sulfate IV** \downarrow spasm in severe asthma exacerbation
- 6) **Ketamine** -> calm pt and reduce spasm
- 7) **Epinephrine IV** (systemic beta agonist)
- 8) **Heliox** -> decreased work of breathing
- 9) **Lastly: Intubation**, last resort because venting these patients is very hard

Quick facts

- BiPAP gives constant airway pressure PLUS some extra during inspiration
- Asthma doing well = resp alkalosis; Asthma worn out = NORMAL CO₂ (sign of decompensation)
- Ventilation concepts: give pts a long time to exhale
 - o \downarrow RR and tidal volume
 - o \uparrow Expiratory time and inspiratory flow