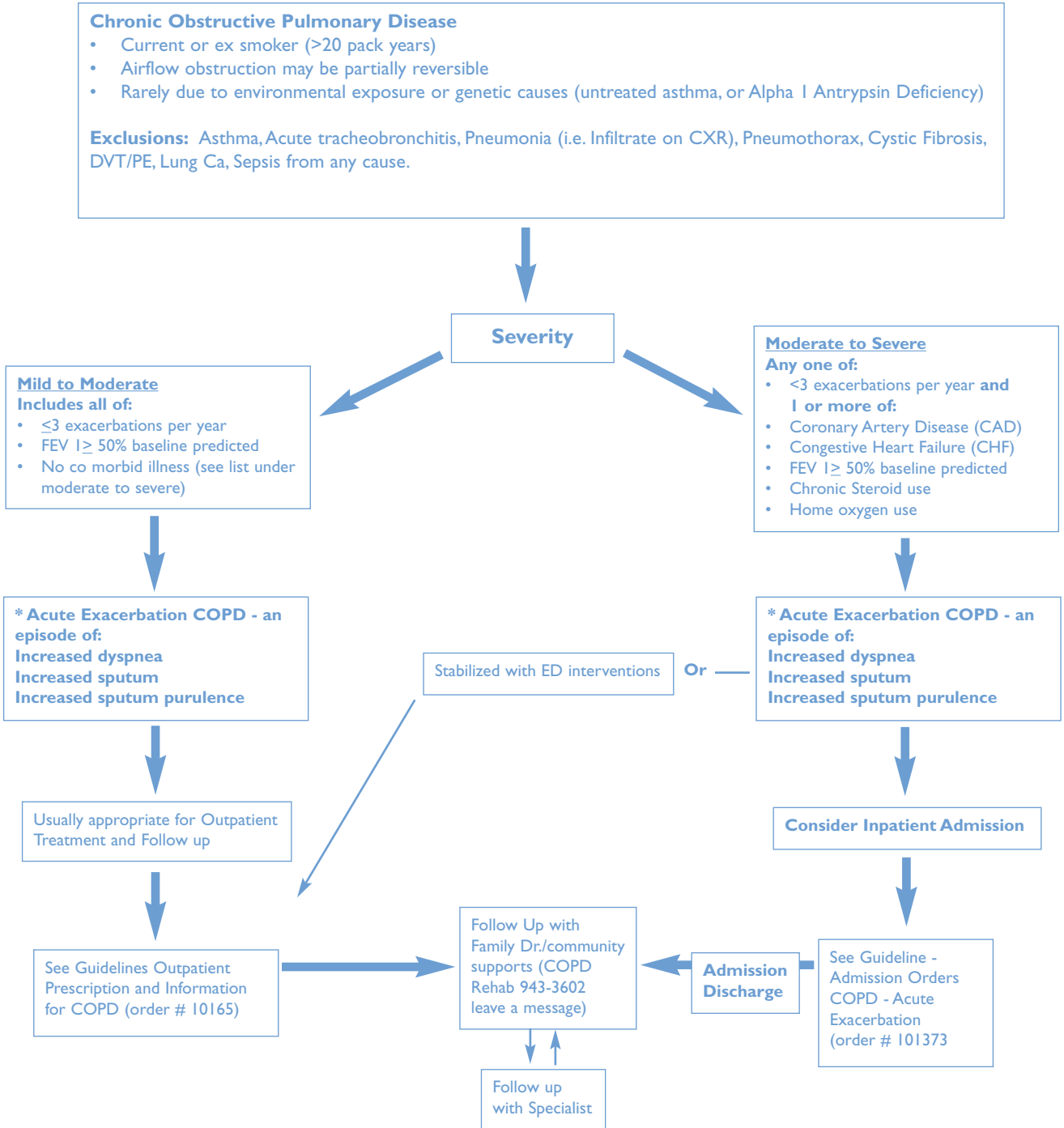


Risk Stratification for Treatment of: Acute Exacerbation Chronic Obstructive Pulmonary Disease (AECOPD)

Proof

Purpose: To assist in guiding the decision for outpatient treatment for AECOPD. Clinical Practice Guidelines are developed to bring best evidence forward to assist in care and treatment decisions and are to be used with clinical judgement.



* Practice Points For Exacerbation in COPD

Prognosis

- Baseline FEV₁ correlates with survival.
- **2 Year Survival rates:** With a post bronchodilator
FEV₁ 20 – 29% → 65%
FEV₁ 30 – 39% → 83%
- **Mortality Rate:** Exacerbation and pCO₂ > 50 6 - 12 months rate is → 33% and 43% respectively
Mechanical Ventilation → 20 – 60 %

ABGs

- A pH of < 7.25 will most likely require BIPAP and/or ICU care. A respirologist or intensivist should be contacted immediately.
- Usually in acute respiratory acidosis the pH decreases by 0.08 for every 10mm Hg increase in pCO₂.
- Chronic respiratory acidosis the HCO₃ usually increases 3 – 4 mmol/L for every 10 mm Hg increase in pCO₂.

O₂

Goal: to correct life threatening hypoxemia without causing a fall in the pH (<7.26)

- Use smallest amount of supplemental O₂ required to achieve goal. **Aim for oxygen saturations of 87-92%.**
- Initial ABGs showing hypercapnia or acidosis give O₂ by Venturi mask or Cold Nebulizer delivers a more predictable O₂ concentration than nasal prongs.
- **ABGs should be repeated x 1 20-30 min. after any change** in the O₂ when patient is unstable, then as per physician order.
- If the inspired O₂ causes a worsening of the pH (< 7.26) and the SaO₂ remains unacceptably low then this patient requires alternate therapies (BIPAP, ICU). Consult respirologist or intensivist immediately.

Antimicrobial Therapy

- If patient has recently been on antibiotics, consider a different class of antibiotic.
- These guidelines reflect local susceptibility data and may differ from Alberta Med. Assoc. Guidelines.

Corticosteroids

Rationale: Oral corticosteroids for acute exacerbations of COPD have been shown to reduce treatment failures, decrease length of stays.

Duration: 2 week course of corticosteroids is as effective as an 8 week tapering course. Tapering schedule is not required for a 2 week course of prednisone.

Dosage: Optimal dose not determined. SCCOPE trial used high dose initial therapy (methylprednisone 125 mg IV Q6h x 72 hours). Usually exacerbations can be safely treated with Prednisone 50 mg daily x 10-14 days, d/c without taper.

Long-Term Supplemental O₂

Benefits:

- Supplemental O₂ is the **only drug shown** to confer a survival benefit. Benefit is seen in patients with a PaO₂ < 55 (or < 60 in the setting of pulmonary hypertension, cor pulmonale or secondary polycythemia)
- The patient must wear the O₂ a **minimum of 15 hours/day**.
- There is no survival benefit of supplemental O₂ in patients with adequate PaO₂

Sedatives

- Avoid sedatives, hypnotics and narcotics if at all possible, especially if respiratory acidosis exists.

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