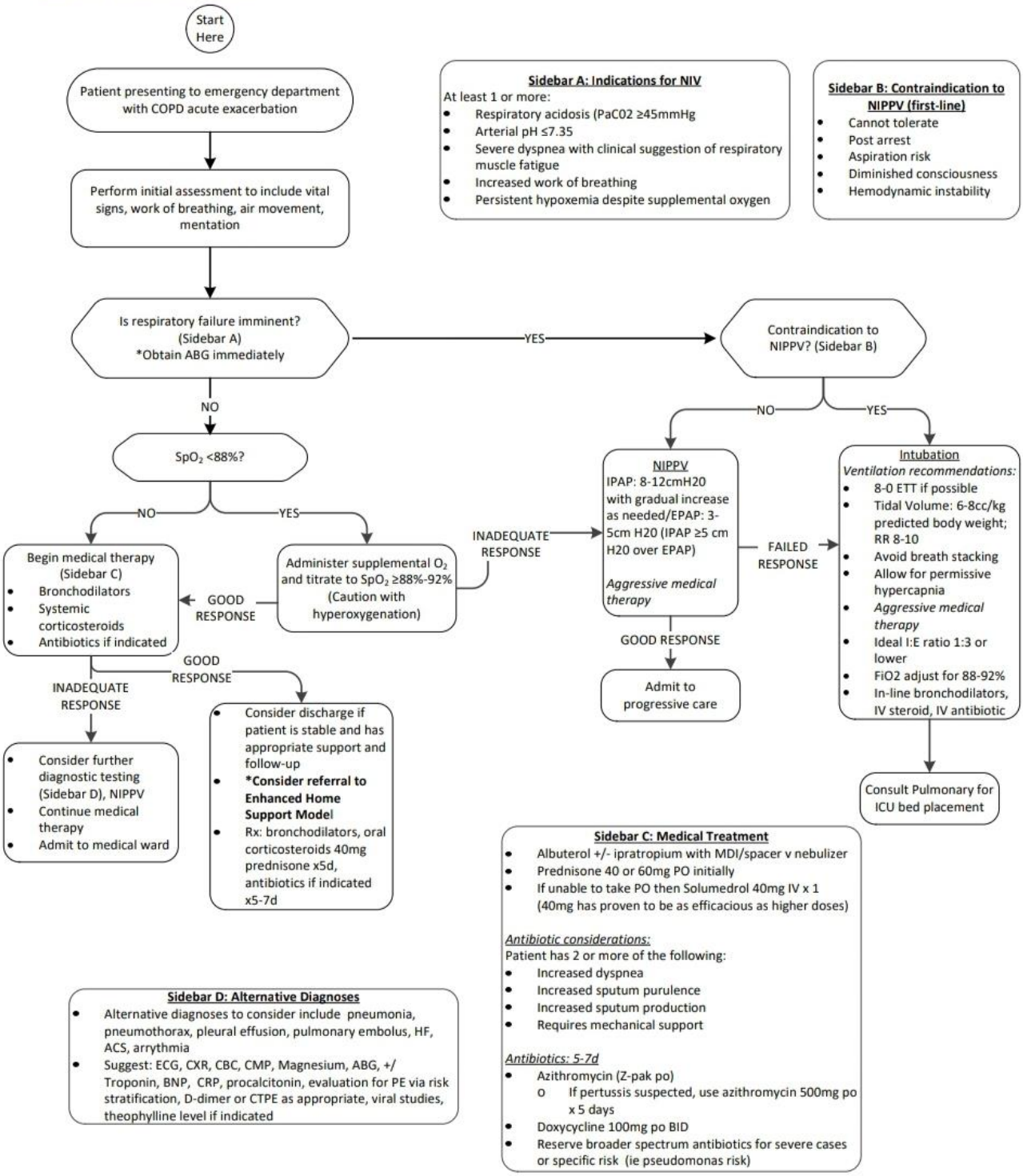
BAPTIST Physician Partners

Chronic Obstructive Pulmonary Disease

Emergency Department: Management



Sidebar A: Indications for NIV

At least 1 or more:

- Respiratory acidosis (PaC02 ≥45mmHg
- Arterial pH ≤7.35
- Severe dyspnea with clinical suggestion of respiratory muscle fatigue
- Increased work of breathing
- Persistent hypoxemia despite supplemental oxygen

Sidebar B: Contraindication to NIPPV (first-line)

- Cannot tolerate
- Post arrest
- Aspiration risk
- Diminished consciousness
- Hemodynamic instability

Sidebar C: Medical Treatment

- Albuterol +/- ipratropium with MDI/spacer v nebulizer
- Prednisone 40 or 60mg PO initially
- If unable to take PO then Solumedrol 40mg IV x 1 (40mg has proven to be as efficacious as higher doses)

Antibiotic considerations:

Patient has 2 or more of the following:

- Increased dyspnea
- Increased sputum purulence
- Increased sputum production
- Requires mechanical support

Antibiotics: 5-7d

- Azithromycin (Z-pak po)
  - o If pertussis suspected, use azithromycin 500mg po x 5 days
- Doxycycline 100mg po BID
- Reserve broader spectrum antibiotics for severe cases or specific risk (ie pseudomonas risk)

Sidebar D: Alternative Diagnoses

- Alternative diagnoses to consider include pneumonia, pneumothorax, pleural effusion, pulmonary embolus, HF, ACS, arrythmia
- Suggest: ECG, CXR, CBC, CMP, Magnesium, ABG, +/ Troponin, BNP, CRP, procalcitonin, evaluation for PE via risk stratification, D-dimer or CTPE as appropriate, viral studies, theophylline level if indicated

References:
Pocket Guide to COPD Diagnosis, Management, and Prevention. Global Initiative for Chronic Obstructive Lung Disease. 2019
VA/DoD Clinical Practice Guideline for the Management of Chronic Obstructive Pulmonary Disease. Lewin Group. December 2014

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