

ASTHMA EXACERBATION

FLAME LECTURE: 34

PRESTIA 8.19.19

LEARNING OBJECTIVES

- ▶ To review the signs of an asthma exacerbation
- ▶ To describe diagnosis and treatments of an asthma exacerbation
- ▶ Prerequisites:
 - ▶ NONE
- ▶ See also – for closely related topics
 - ▶ FLAME LECTURES 24-26: Asthma Pathophysiology, Diagnosis, and Treatment Overview

ASTHMA EXACERBATION DIAGNOSIS

- ▶ Asthma exacerbations are defined as an acute or subacute progressively worsening episode of shortness of breath, cough, wheezing or chest tightness
- ▶ Classified:
 - ▶ Mild - Dyspnea with activity or FEV1 \geq 70%
 - ▶ Moderate - Dyspnea interferes with usual activity or FEV1 40-69%
 - ▶ Severe - Dyspnea at rest or conversation or FEV1 $<$ 40%

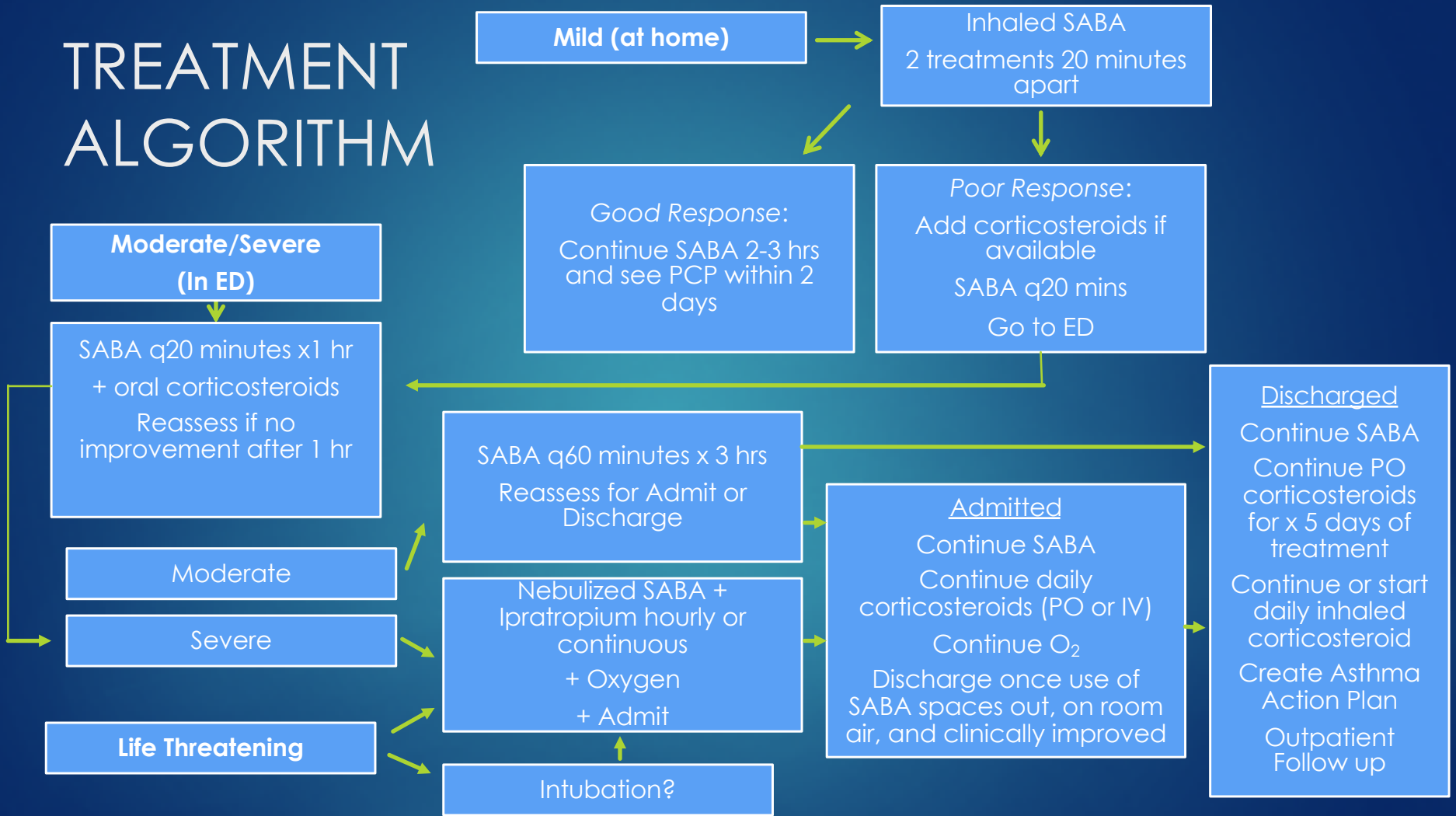
ASTHMA EXACERBATION TREATMENT

- ▶ Mild - usually managed at home
 - ▶ Start with inhaled short-acting beta₂ agonist (SABA) - 2 treatments 20 minutes apart
 - ▶ If there is a good response → continue SABA every 2-3 hrs for 48hrs and make appt to see PCP in office
 - ▶ If there is a poor response → add oral corticosteroids, continue SABA every 20 minutes and go to ED or call PCP immediately

ASTHMA EXACERBATION TREATMENT

- ▶ Moderate/Severe - managed at ED
 - ▶ SABA q20 minutes x 1 hour (3 treatments) + oral corticosteroids if no immediate relief after first treatment
 - ▶ Moderate: SABA q1 hour for up to 3 hours → consider admission
 - ▶ Severe: SABA + ipratropium nebs hourly or continuously + O₂ + admit
 - ▶ Upon admit, continue O₂, corticosteroids daily, and SABA +/- ipratropium until spaced out to treatments q 3-4 hours
 - ▶ Upon discharge: continue corticosteroids x 5 days, SABA, +/- ipratropium. Consider maintenance inhaled corticosteroid (if not on one prior)
 - ▶ EVERYONE needs an Asthma Action Plan education and close follow up
- ▶ Life Threatening - direct admission to ICU
 - ▶ Oxygen + SABA hourly or continuous + IV corticosteroids +/- Intubation
- ▶ Next slide repeats these algorithms

TREATMENT ALGORITHM



REFERENCES

1. National Heart Lung and Blood Institute. National Asthma Education and Prevention Program. Expert panel report 3: Guidelines for the diagnosis and management of asthma. 2007. <http://www.nhlbi.nih.gov/guidelines/asthma/asthgdln.htm>.
2. AAFP Management of Acute Asthma Exacerbations (<https://www.aafp.org/afp/2011/0701/p40.html#afp20110701p40-b6>)