

Child presents to Primary Care or Urgent Care for Management of Acute Asthma Exacerbation
Inclusion: Age ≥ 2 yr, with respiratory symptoms, known h/o wheeze, albuterol

Assess patient using Rainbow Clinical Asthma Score (CAS) see below

	0 – None/Mild	1 – Moderate	2 – Severe
Wheeze	None or end expiratory wheezes	Inspiratory and/or expiratory wheezes	Breath sounds becoming inaudible
Accessory Muscle Usage	None	Intercostal and/or tracheosternal	Intercostal and/or tracheosternal muscles PLUS use of sternocleidomastoid muscles
Air Exchange	Equal all lobes	Decreased in some lobes	Decreased in all lobes
Oxygenation	SpO2 ≥94% on room air	SpO2 < 94% on room air OR SpO2 ≥ 94% on supplemental O2	SpO2 <94% on supplemental O2
Respiratory Rate	1-5 yrs: <30 bpm 6-14 yrs: <25 bpm ≥15 yrs: <20 bpm	1-5 yrs: 30-35 bpm 6-14 yrs: 25-30 bpm ≥15 yrs: 20-25 bpm	1-5 yrs: >35 bpm 6-14 yrs: >30 bpm ≥15 yrs: >25 bpm

Place patient on carepath per CAS

CAS 0-1

CAS 2-4

CAS ≥ 5: URGENT

Go to **Mild** Algorithm

Go to **Moderate** Algorithm (Pg 2)

Go to **Severe** Algorithm (Pg 2)

CAS 0

- No asthma treatment
- Perform asthma teaching and components from Discharge Checklist (if applicable)

CAS 1

- Albuterol MDI* & Spacer 6 puffs x 1
(If MDI/spacer not available, give albuterol 2.5 mg nebulized with mask or mouthpiece)

Immediate Post Tx CAS

CAS 0-1

- No worsening or score
- Perform asthma teaching and components from Discharge Checklist (if applicable)

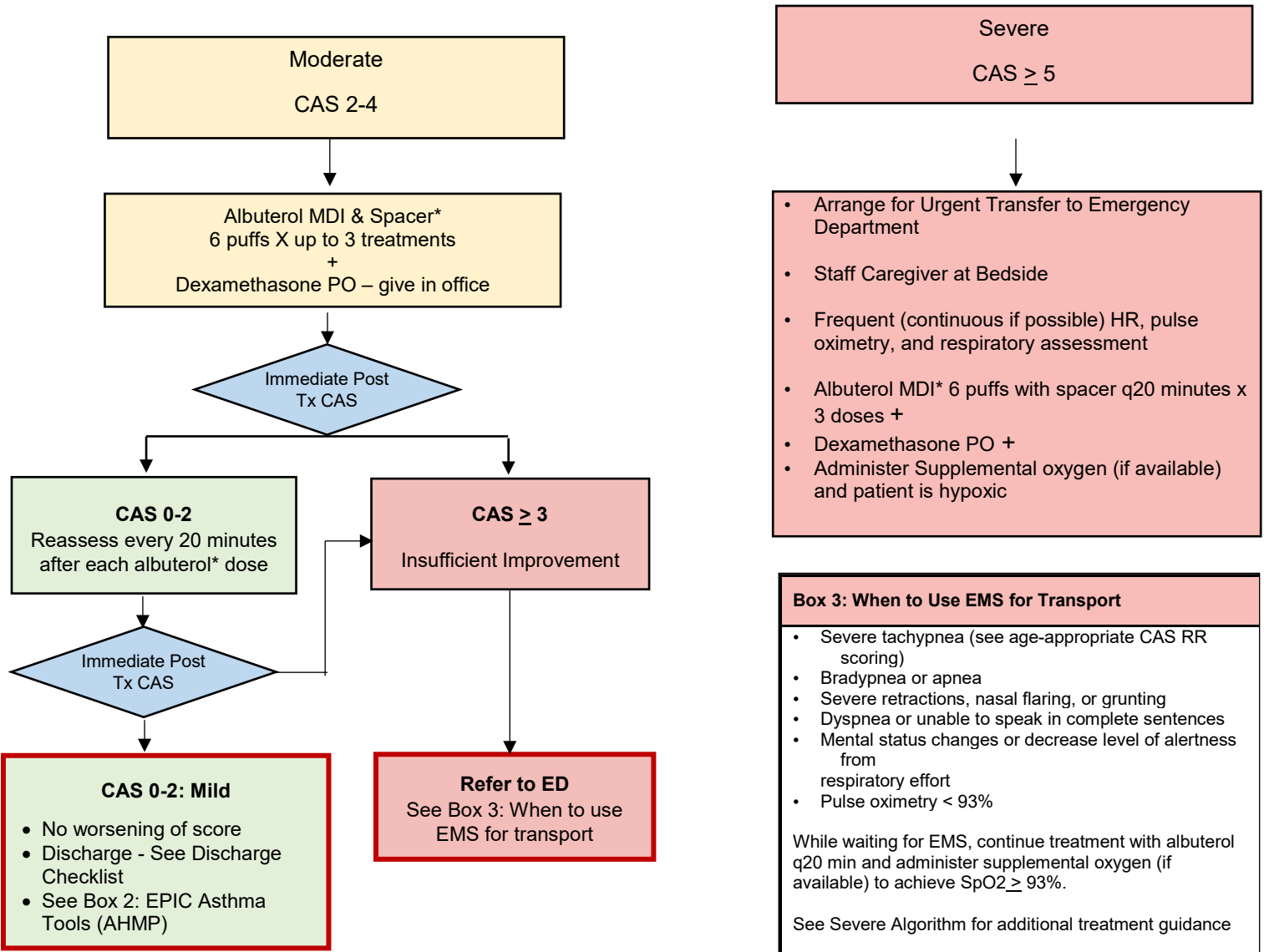
CAS 2-4
Go to Moderate Algorithm (Pg 2)

CAS ≥ 5
Go to Severe Algorithm (Pg 2)

Discharge Checklist

- Order outpatient meds as soon as determined; see applicable Asthma Smart Sets
- Referrals made or follow-up with your asthma specialist or PCP prescribing asthma treatment
- Asthma Home Management Plan reviewed with teach-back
- Device training and teach back performed
- Provide prescription for 1st and/or 2nd dose of steroids (if applicable)

Albuterol MDI* preferred for treatment
 (Nebulizer solution may be used in place of MDI's when not available or in use at facility. Follow current PPI recommendations to minimize exposure to viral droplets)



Box 1: Criteria for Oral Steroid

Give 1st Dexamethasone for mild orally (in office) if patient meets one of the following steroid criteria:

- Requiring more than 1 dose of albuterol above baseline (defined as 1 vial of nebulized solution or 2-4 puffs) for symptoms (not exercise pre-treatment) for 2 out of the last 3 days
- Requiring back-to-back albuterol doses in the last 24 hours and still having cough, wheezing, or shortness of breath
- Requiring albuterol more often than every 4 hours for the last 24 hours
- **Steroid Dosing:**
 - Dexamethasone oral X 1 dose per 24 hours
 - 0-8 kg = 4 mg
 - 8.1-15 kg = 8 mg
 - 15.1-20 kg = 12 mg
 - > 20 kg = 16 mg

Box 2: EPIC Asthma Tools

- Asthma Smart Sets
 - Asthma 0-4
 - Asthma 5-11
 - Asthma 12+
 - Asthma Exacerbation
- The Asthma Home Management Plan (i.e. Asthma Action Plan) is built into EPIC and can be located using the search tool bar.

Box 3: When to Use EMS for Transport

- Severe tachypnea (see age-appropriate CAS RR scoring)
- Bradypnea or apnea
- Severe retractions, nasal flaring, or grunting
- Dyspnea or unable to speak in complete sentences
- Mental status changes or decrease level of alertness from respiratory effort
- Pulse oximetry < 93%

While waiting for EMS, continue treatment with albuterol q20 min and administer supplemental oxygen (if available) to achieve SpO₂ ≥ 93%.

See Severe Algorithm for additional treatment guidance