

ED ASTHMA EXACERBATION INITIAL MANAGEMENT - ADULT (17 years of age or older)

Weight (kg)

Bulleted orders are initiated by default, unless crossed out and initialed by the physician / prescriber. Boxed orders () require physician / prescriber check mark () to be initiated.

1. **ALLERGIES:** see #826234 – Allergy and Adverse Reaction Record
2. **CODE STATUS:** Refer to completed Medical Orders for Scope of Treatment (MOST) #829641
3. **CONSULTS**
 - Intensivist
 - Internal Medicine
 - Respiratory Therapist ****consult Intensivist / Respiratory Therapist EARLY for severe / life threatening asthma****
4. **ED DIET:** NPO
5. **MONITORING**
 - Peak expiratory flow now if tolerated, then PRN post treatment interventions (*Indicated if patient can tolerate and is familiar*)
 - Continuous cardiac and SPO₂ monitoring
 - Continuous ETCO₂ monitoring
 - Point of Care Blood Glucose STAT
6. **STAT LABORATORY**
 - CBC, Lytes4, Creatinine (incl. GFR), Urea
 - Blood Gases- Venous ****OR**** Blood Gases- Arterial
 - Other _____
7. **STAT DIAGNOSTICS**
 - ECG 12 LEAD
 - CXR ****OR**** CXR [PORT]
8. **TREATMENTS**
 - Apply oxygen to keep SpO₂ greater than 92% ****OR**** greater than _____ %
 - Initiate peripheral IV access
9. **INTRAVENOUS THERAPY AND HYDRATION**

IV Fluid Bolus

 - Lactated Ringer's Solution** _____ mL IV/IO over _____ minutes
 - Sodium Chloride 0.9%** _____ mL IV/IO over _____ minutes

Maintenance IV Fluids

 - Lactated Ringer's Solution** _____ mL/H IV/IO
 - Sodium Chloride 0.9%** _____ mL/H IV/IO

Date (dd/mm/yyyy)	Time	Prescriber's Signature	Printed Name or College ID#
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10. MEDICATIONS

ASTHMA MANAGEMENT - See criteria outlined in Table 1. for severity grading

MILD ASTHMA

INHALED MEDICATIONS

****MDI with spacer is the preferred and significantly more effective method of inhaled medication delivery, reserve nebulized medications only when patient unable to tolerate MDI with spacer****

Initial Management

- **salbutamol 4 puffs (400 mcg) via MDI with spacer STAT, then Q20MIN × 2 more doses PRN ****OR******
- **salbutamol 2.5 mg nebulized STAT, then Q20MIN × 2 more doses PRN**

Ongoing Management

- **salbutamol 2 to 4 puffs (200 to 400 mcg) via MDI with spacer Q1H PRN ****OR******
- **salbutamol 2.5 mg nebulized Q1H PRN**

CORTICOSTEROIDS

- prednisone 50 mg PO × 1 dose**

MODERATE ASTHMA

INHALED MEDICATIONS

****MDI with spacer is the preferred and significantly more effective method of inhaled medication delivery, reserve nebulized medications only when patient unable to tolerate MDI with spacer****

Initial Management

- **salbutamol 6 puffs (600 mcg) via MDI with spacer Q20MIN × 3 doses ****OR******
- **salbutamol 5 mg nebulized Q20MIN × 3 doses**
- ipratropium 6 puffs (120 mcg) via MDI with spacer Q20MIN × 3 doses ****OR******
- ipratropium 500 mcg nebulized Q20MIN × 3 doses**

Ongoing Management

- **salbutamol 4 to 6 puffs (400 to 600 mcg) via MDI with spacer Q1H PRN ****OR******
- **salbutamol 2.5 to 5 mg nebulized Q1H PRN**
- ipratropium 2 to 4 puffs (40 to 80 mcg) via MDI with spacer Q1H PRN × 3 doses ****OR******
- ipratropium 500 mcg nebulized Q1H PRN × 3 doses**

CORTICOSTEROIDS

- prednisone 50 mg PO × 1 dose**
****OR****
- methyLPREDNISolone 40 mg IV × 1 dose (if unable to tolerate PO medication)**

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10. MEDICATIONS (cont'd)

SEVERE ASTHMA

INHALED MEDICATIONS

****MDI with spacer is the preferred and significantly more effective method of inhaled medication delivery, reserve nebulized medications only when patient unable to tolerate MDI with spacer****

Initial Management

- **salbutamol 8 puffs (800 mcg) via MDI with spacer Q20MIN × 3 doses** ****OR****
- **salbutamol 5 mg nebulized Q20MIN × 3 doses**
- **ipratropium 6 puffs (120 mcg) via MDI with spacer Q20MIN × 3 doses** ****OR****
- **ipratropium 500 mcg nebulized Q20MIN × 3 doses**

Ongoing Management

- **salbutamol 4 to 6 puffs (400 to 600 mcg) via MDI with spacer Q1H PRN** ****OR****
- **salbutamol 5 mg nebulized Q1H PRN**
- **ipratropium 4 to 6 puffs (40 to 120 mcg) via MDI with spacer Q1H PRN × 3 doses** ****OR****
- **ipratropium 500 mcg nebulized Q1H PRN × 3 doses**

INTRAVENOUS MEDICATIONS

- **methylPREDNISolone 125 mg IV × 1 dose STAT** (give even if already received PO dose)
- magnesium sulfate 2 g IV × 1 dose STAT infused over 20 minutes**

LIFE THREATENING ASTHMA OR IMPENDING RESPIRATORY FAILURE

****Concurrent use of INHALED MEDICATIONS from SEVERE ASTHMA section via more appropriate route (MDI, nebulized, per ETT) recommended along with medications below****

- **methylPREDNISolone 125 mg IV × 1 dose STAT** (if not already given IV dose; give even if already received PO dose)
- **magnesium sulfate 2 g IV × 1 dose STAT infused over 20 minutes** (if not already given)
- EPINEPPrine 0 to 15 mcg/min IV infusion** (suggested starting dose 5 mcg/min)
****OR****
- salbutamol 250 mcg IV loading dose over 5 minutes, then salbutamol 5 mcg/min IV infusion, may double infusion rate Q15MIN PRN to a maximum of 20 mcg/min** for incomplete response

****Consider adding ketamine IV if trialling NIPPV or preparing for intubation (see 829761 ED Asthma Exacerbation Initial Management Treatment Algorithm- Adult)****

ADJUNCTIVE THERAPY

- acetaminophen 500 mg to 1,000 mg PO Q6H PRN** ****OR**** **acetaminophen 650 mg PR Q6H PRN** for pain/fever (maximum 4,000 mg / 24H from all sources)
- dimenhyDRINATE 25 mg to 50 mg PO/IV/IO Q6H PRN** for nausea (avoid in older adults due to risk of delirium)
- ondansetron 4 mg PO/IV/IO Q8H PRN** for nausea

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