

BROWN EMERGENCY MEDICINE CDU ASTHMA/COPD TREATMENT PATHWAY

Purpose: To safely manage patients diagnosed with an acute Asthma or COPD exacerbation who require further observation and medical management after standard ED therapy

CDU Admission Eligibility Criteria:

- Continued shortness of breath and wheezing
- Mild to moderate use of accessory muscles
- No infiltrate on CXR
- Non-dynamic or non-ischemic ECG
- PEFr > 40% after 3 nebulizers

CDU Exclusion Criteria:

- Vital Signs:
 - Temperature > 100.4 F
 - Systolic Blood Pressure <90 mmHg
 - RR>30
 - Pulse Oximetry < 92% on room air while seated or lying down or at baseline are 88-92% on room air
- On home oxygen
- Clinical evidence of respiratory failure (or pH <7.3 or >7.5 if VBG obtained)
- Altered mental status
- Lactate > 2 mmol/L if obtained
- Positive influenza, RSV, or COVID-19 swab
- Need for continuous nebulizers, BIPAP, or heliox
- Inability to perform spirometry
- Concurrent medical problem requiring admission
- Any condition found on the "CDU Universal Exclusion Criteria" list
- Requiring more assistance for ADLs than the CDU is capable of safely providing (one assist/patient for units with 5:1 maximum staff:patient ratio and no assists for units with >5:1 maximum staff:patient ratio)
- Unlikely discharge within 48 hrs. (ED attending discretion)

Discharge Criteria:

- Normalized vital signs with return to patient's baseline
- PEFr > 70% sustained for at least 1 hour after last respiratory treatment
- Ambulatory Pulse Oximetry > 94 % or return to baseline

*Observation Textbook; BWH Protocol; McCarren AEM 2000

Last Update: 12/18/22, EEG

ASTHMA/COPD MANAGEMENT PATHWAY¹:

Pre-observation unit evaluation should include:

1. CBC, Chem 7, other labs as clinically indicated
2. Rapid influenza screening if clinically indicated
3. EKG
4. Chest radiograph
5. Peak Flow > 40%

Observation Unit Evaluation/Management should include:

1. Serial vital signs
2. IV hydration, if indicated
3. Prednisone 1mg/kg PO QD (up to 60mg)
4. Albuterol inhaler 2 puffs vs. 1 nebulizer every 2-4 hours
5. Peak Flow before and after each albuterol treatment
6. For COPD:
 - a. Consider azithromycin if new productive cough or if provider decides clinically indicated

Indications for hospital admission while under ED observation:

1. Clinical Deterioration
2. PEFr <70% or no significant improvement after 12 hours
3. Inability to be discharged within 24 hours

Discharge Criteria:

1. Normalized vital signs
2. PEFr > 70% sustained for at least 1 hour after last treatment
3. Ambulatory Pulse Oximetry > 94 % or return to baseline (must be > 88 %)

Discharge Instructions:

1. Ensure patient has adequate supply of home respiratory treatments (neb vs MDI)
2. Prednisone 1mg/kg PO daily (up to 60mg) for 5 days without taper
3. For COPD:
 - a. Consider azithromycin if new productive cough or at the providers discretion
4. Ensure close outpatient follow up with PCP or pulmonologist within 14 days

¹ Reviewed by Pulmonology in 2015 and Pharmacy and Therapeutics February 2016