

Adult Asthma Care Protocol – Emergency Department

Purpose:

To identify the protocol used to deliver care to the adult asthmatic patient in the Emergency Department.

Description:

The ER adult asthma care protocol is designed to allow for identification of the severity of the patient's asthma exacerbation, to expedite the delivery of pulmonary medications to "break" the exacerbation and prevent the need for hospitalization, and to promptly identify those patients who will require hospitalization for further treatment. The patient will also receive asthma education and recommendation for medical follow up to help control future exacerbations.

Indications:

Patients 17 years of age and older that have been triaged or diagnosed with asthma exacerbation may be indicated for the ER adult asthma care protocol. A physician order will be required to initiate the protocol.

Hazards / Complications:

Any patient adverse reaction during treatment shall be reported to the physician in accordance with Cardiopulmonary Services PROC 3.3 and the physician will decide whether to continue the protocol.

Personnel:

The Respiratory Care Practitioner (RCP) will be primarily responsible for managing the protocol. The emergency room RN may be required to "fill in" for the RCP in situations requiring the RCP's absence. (ex; CODE, ventilator setup, etc.).

Protocol:

Initial Assessment - If not already done, upon physician request for the protocol, an initial assessment of the patient's respiratory status shall be performed to include:

- Brief history
- Breath sounds
- Use of respiratory accessory muscles
- Heart rate
- Respiratory rate and pattern
- SpO₂ on room air
- Peak expiratory flowrate (PEF) – use nomogram to calculate patient's predicted PEF or document patient's known personal best PEF

Initial Treatment - Initial treatment shall be based on PEF and severity of symptoms:

- I. PEF \geq 50% predicted or personal best with mild to moderate symptoms shall receive:
 - Albuterol 4 puffs MDI or 2.5mg HHN X 3 doses in the first hour (Q20 min)

Cardiopulmonary Services
Patient Driven Protocols
Proc20.3

- Oxygen to achieve $SpO_2 \geq 95\%$
- Prednisone 40mg p.o.

II. PEF < 50% predicted or personal best with more severe symptoms shall receive:

- Albuterol 5mg with ipratropium bromide 0.5mg HHN X 3 doses in the first hour (Q20 min)
- Oxygen to achieve $SpO_2 \geq 95\%$
- Prednisone 40mg p.o.

III. Patients assessed to be in impending or actual respiratory failure will be immediately referred to the physician. Treatment will be given according to direct physician order.

Repeat Assessment - assessment of response to initial treatment shall include:

- Breath sounds
- Use of respiratory accessory muscles
- Heart rate
- Respiratory rate and pattern
- SpO_2
- PEF

Repeat Treatment – repeat treatment shall be based on the repeat assessment of PEF and severity of continued symptoms:

I. PEF $\geq 50\%$ predicted or personal best with moderate symptoms shall receive:

- Albuterol 4 puffs MDI every hour for 1 to 3 hours

II. PEF < 50% with continued severe symptoms shall require physician notification and shall receive:

- Albuterol 5mg HHN up to 3 doses in the next hour (Q20 min)

Final Assessment – assessment of response to continued treatment shall include:

- Breath sounds
- Use of respiratory accessory muscles
- Heart rate
- Respiratory rate and pattern
- SpO_2 on room air
- PEF

I. Good Response – educate patient on medicine use, action plan, and recommended medical follow up and refer to physician for discharge if:

- PEF $\geq 70\%$ predicted or personal best
- Response sustained for 60 minutes after last treatment with no distress and no symptoms
- $SpO_2 > 90\%$ on room air

II. Incomplete Response – obtain ABG and refer to physician for admit to observation unit if:

Cardiopulmonary Services
Patient Driven Protocols
Proc20.3

- PEF 50 to 70% predicted or personal best
- Continued mild to moderate symptoms

III. Poor Response – obtain ABG and refer to physician for admit to ward or ICU if:

- PEF < 50% predicted or personal best
- Continued severe symptoms

NOTE: Any patient admit requires RCP report to the receiving RCP and follow up education.

References:

1. National Asthma Education and Prevention Program – Expert Panel Report II, February 1997
2. ER Adult Asthma Care Protocol Steering Committee

Written: November 1997
Reviewed: 2000