REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Basic

SMO: Anaphylaxis and Allergic Reactions

Overview: Allergic reactions can vary in severity from a mild reaction consisting of hives and rash to a severe generalized allergic reaction termed anaphylaxis resulting in cardiovascular and respiratory collapse. Common causes of allergic reactions include: bee/wasp stings, penicillin or other drug allergies and seafood or nuts. Exposures can occur from ingestion, inhalation, injection or absorption through skin or mucous membranes. This protocol is intended to help the EMS responder assess and treat the spectrum of allergic reactions.

INFORMATION NEEDED

__Exposure to common allergens (bee stings, drugs, nuts, seafood, medications), prior allergic reactions
__Respiratory: wheezing, stridor, respiratory distress
__Skin: itching, hives, rash
__Other symptoms: nausea, weakness, anxiety

OBJECTIVE FINDINGS—MILD ALLERGIC REACTION

__Hives, rash

TREATMENT

__Remove etiologic agent if possible or relocate patient
__Ensure patent airway
__Administer oxygen 2-6 L/min via nasal cannula
__Pulse oximetry
__Routine Medical Care
__ Transport to hospital

OBJECTIVE FINDINGS—MODERATE ALLERGIC REACTION
__Hives, rash
__Mild bronchospasm
__Normotensive

TREATMENT
__Remove etiologic agent if possible or relocate patient
__Ensure patent airway
__Administer oxygen 10-15 L/min via nonrebreather mask
__Pulse oximetry
__BVM with High Flow oxygen 15 LPM if patient ventilation inadequate
__Suction as needed for patient secretion
__Routine medical care
__**Albuterol** 5 mg total dose via nebulizer, repeat if indicated
__If no response and patient bronchospasm persists or worsens, consult Medical Control for use of **Epi-Pen** 0.3 mg SQ, may repeat in 5 minutes X 1
__Immediate transport to the nearest hospital if < 5 minute transport time or ALS intercept
__Contact of medical control whenever transport time or time to intercept exceeds 5 minutes

OBJECTIVE FINDINGS—SEVERE ALLERGIC REACTION (ANAPHYLAXIS)
__Altered mental status
__Hypotension (SBP < 90 and evidence of hypoperfusion)
__Bronchospasm and/or angioedema

TREATMENT
__Remove etiologic agent if possible or relocate patient
__Ensure patent airway
__Administer oxygen 10-15 L/min via nonrebreather mask
__Pulse oximetry
__BVM with High Flow oxygen 15 LPM if patient ventilation inadequate
__Suction as needed for patient secretion
__Routine Medical Care
__ **Epi-Pen 0.3mg SQ,** may repeat in 5 min X 1
__**Albuterol** 2.5 mg total dose via nebulizer, repeat prn until relief of symptoms
__Advanced airway management as indicated (Combitube)
__Immediate transport to the nearest hospital if < 5 minute transport time or ILS or ALS intercept
__Contact of medical control whenever transport time or time to intercept exceeds 5 minutes

Documentation of adherence to protocol:
__Oxygen given
__Initial level of respiratory distress assessed and noted on chart (mild, moderate or severe)
__ Pulse oximetry
__ Bronchodilator given as indicated
__*Epinephrine administered for severe allergic reaction (anaphylaxis)

Medical Control Contact Criteria

__ Contact Medical Control for permission to administer **Epinephrine** in patients who are not in Anaphylactic Shock.

PRECAUTIONS AND COMMENTS

- Note that a patient may change rapidly and frequent reassessment is necessary. Inform medical control of significant changes in patient status.
- Epinephrine may cause: anxiety, tremor, palpitations, tachycardia, and headache. In elderly patients, epinephrine administration may precipitate AMI , hypertensive crisis and/or dysrhythmias.
- Edema of any of the soft structures of the upper airway may be lethal. Observe closely, and be anticipate need for ALS intercept.
- Note that if a patient worsens and advances to a more severe category of allergic reaction, i.e. moves from a moderate allergic reaction to a severe one, repeated doses beyond maximum limits of medication are not to be exceeded without permission from medical control. I.e. if the patient receives two doses of epinephrine under the moderate severity protocol and then advances to a severe reaction, the patient should not receive additional epinephrine unless given permission from medical control.
- The decision to administer Epinephrine is made with caution in patients over 40 years of age or with known history of coronary artery disease or hypertension. Consult Medical Control if any question as to the appropriateness in that patient.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate, EMT – Paramedic

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INFORMATION NEEDED

__Exposure to common allergens (bee stings, drugs, nuts, seafood, medications), prior allergic reactions
__Respiratory: wheezing, stridor, respiratory distress
__Skin: itching, hives, rash
__Other symptoms: nausea, weakness, anxiety

OBJECTIVE FINDINGS—MILD ALLERGIC REACTION

__Hives, rash

TREATMENT

___ Remove etiologic agent if possible or relocate patient
___ Ensure patent airway
___ Administer oxygen 2-6 L/min via nasal cannula
___ Pulse oximetry
___ Routine Medical Care
___ Establish IV NS
___ **Diphenhydramine** 25-50 mg IM (or IV)
___ Immediate Transport to closest hospital

OBJECTIVE FINDINGS—MODERATE ALLERGIC REACTION

__Hives, rash
__Mild bronchospasm
__Normotensive

TREATMENT

___ Remove etiologic agent if possible or relocate patient
___ Ensure patent airway
___ Administer oxygen 10-15 L/min via nonrebreather mask
___ Pulse oximetry
___ BVM with High Flow oxygen 15 LPM if patient ventilation inadequate and advanced airway management.
___ Suction as needed for patient secretion
___ Routine medical care
___ **Albuterol** 2.5 mg total dose via nebulizer, repeat if indicated
___ IV access
___ **Diphenhydramine** 50 mg IM or IV
___ If no response and patient bronchospasm persists or worsens, Consult Medical Control for use of **Epinephrine** (1:1000) 0.3 mg SQ or **Epi-Pen** 0.3 mg SQ. Consult Medical Control to repeat in 5 min. X 1
___ Immediate Transport to closest hospital

OBJECTIVE FINDINGS—SEVERE ALLERGIC REACTION (ANAPHYLAXIS)

___ Altered mental status
___ Hypotension (SBP < 90 and evidence of hypoperfusion)
___ Bronchospasm and/or angioedema

TREATMENT

___ Remove etiologic agent if possible or relocate patient
___ Ensure patent airway
___ Administer oxygen 10-15 L/min via nonrebreather mask
___ Pulse oximetry
___ BVM with High Flow oxygen 15 LPM if patient ventilation inadequate and advanced airway management.
___ Suction as needed for patient secretion
___ Routine Medical Care
___ IV access
___ **Epinephrine** (1:10,000) 0.15 mg slow IVP repeat q 5 min. to maximum of 0.3 mg. If no IV access, **Epinephrine** (1:1000) 0.3 mg SQ *OR* **Epi-Pen** 0.3 mg SQ, may repeat in 5 min.
___ **Diphenhydramine** 50 mg IV (or IM if can't establish IV access)
___ **Albuterol** 2.5 mg total dose via nebulizer, repeat prn until relief of symptoms
___ Fluid challenge (500cc NS, reassess and repeat if indicated)
___ Advanced airway management as indicated
___ Immediate Transport to closest hospital

Documentation of adherence to protocol:

___ Oxygen given
___ Pulse oximetry
___ Initial level of respiratory distress assessed and noted on chart (mild, moderate or severe)
___ Bronchodilator given
___ Diphenhydramine given as indicated
___ Epinephrine administered for severe (anaphylaxis)

Medical Control Contact Criteria
__ Contact Medical Control for permission to administer **Epinephrine** in patients who are not in Anaphylactic Shock.

PRECAUTIONS AND COMMENTS

- Note that a patient may change rapidly and frequent reassessment is necessary. Inform medical control of significant changes in patient status.
- *Epinephrine may cause: anxiety, tremor, palpitations, tachycardia, and headache. These may be particularly severe if given IV. In elderly patients, epinephrine administration may precipitate AMI , hypertensive crisis and/or dysrhythmias.
- *Be sure you are giving the proper dilution of Epinephrine to your patient, and give slowly.
- Edema of any of the soft structures of the upper airway may be lethal. Observe closely, and be prepared for early intubation before swelling precludes this intervention (See Airway Management Protocol).
- Note that if a patient worsens and advances to a more severe category of allergic reaction, i.e. moves from a moderate allergic reaction to a severe one, repeated doses beyond maximum limits of medication are not to be exceeded without permission from medical control. I.e. if the patient receives two doses of epinephrine under the moderate severity protocol and then advances to a severe reaction, the patient should not receive additional epinephrine unless given permission from medical control.
- The decision to administer Epinephrine is made with caution in patients over 40 years of age or with known history of coronary artery disease or hypertension. Consult Medical Control if any question as to the appropriateness in that patient.