



Ashley Ambulance Protocols



From ND Treatment Protocols
With Amendments

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History and Physical Exam

1. Chief Complaint
2. History of the present illness or injury
3. Physical Examination:
 - Vitals:
 - Level of Consciousness
 - Resp - rate, regularity and rhythm
 - Pulse – rate and rhythm
 - Blood pressure
 - Pulse Oximeter reading (Ox % only)
 - Temperature

 - Systemic Checks:
 - Head
 - Neck
 - Chest
 - Abdomen
 - Neuralgic
 - Orthopedic
 - Vascular
4. Past History:
 - Pre-diagnosed medical problems
 - Allergies
 - Medications
 - Major surgery
5. Patient Information:
 - Patients Name
 - Age (estimated)
 - Sex
 - Regular Doctor

ABDOMINAL PAIN

ADULT PROTOCOL

FIRST RESPONDER AND EMT - B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. If trauma emergency, refer to trauma protocol.
 2. Administer high flow oxygen, NRB at 15 LPM.
 3. Keep the patient lying still.
 4. Transport in position of comfort.
 5. Be alert for vomiting.
 6. Do not give patient anything to eat or drink.
 7. Save container of emesis if poisoning or overdose is suspected.

EMT-I

If condition indicates, establish IV access at a TKO rate.

EMT-P

Consider NG tube placement.
Consider cardiac rhythm monitoring and treat as needed.

Pediatric EMT-P

If unable to establish IV -- Establish IO if condition indicates.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. If trauma emergency, refer to trauma protocol.
 2. Administer high flow oxygen, consider blow-by oxygen.
 3. Keep child as still as possible.
 4. Transport in position of comfort; allow parent to be with child.
 5. Be alert for vomiting.
 6. Do not give child anything to eat or drink.
 7. Be prepared to treat respiratory compromise.
 8. Save container of emesis if poisoning or overdose is suspected.
 9. Explain procedures to child.

ALLERGIC REACTION
ANAPHYLAXIS

ADULT PROTOCOL

FIRST RESPONDER AND EMT - B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Administer high flow oxygen, NRB at 15 LPM.
 2. Determine if patient has prescribed Preloaded epinephrine (**Epi-pen**).
 3. If patient does not have epinephrine Auto-injector available, transport Immediately. Consider ALS intercept.
 4. **Contact medical direction for order to assist with the administration of preloaded epinephrine.**
 5. Reassess in two minutes.
 6. Record reassessment findings.
 7. If condition fails to improve or remains unstable, contact medical direction for order to **give additional dose of epinephrine.**
 8. Treat for shock (hypoperfusion) if present.
 9. Elevate legs if signs of shock.
 10. If patient is pulseless, proceed with CPR.
 11. Consider administration of medications if training on Nebulized medications has been completed.
- Albuterol* Nebulizer with 2.5 mg (3 cc of 0.083%).

EMT-I

1. After administration of preloaded epinephrine, establish IV access at a TKO rate or as appropriate for hypoperfusion.
 2. Consider intubation if condition indicates.
 3. Consider administration of medications if training on Nebulized medications has been completed.
- Albuterol* Nebulizer with 2.5 mg (3 cc of 0.083%).

Pediatric EMT-I

IV fluid bolus (if signs of shock) 20 cc/kg.

EMT-P

Administration of medications:

Epinephrine (1:1000) 0.2-0.5 mg SC or 0.1-0.25 mg IV, repeat every 10-15 min up to 1 mg

Consider intubation if condition indicates.
Monitor cardiac rhythm and treat as needed.
Additional medications

Benadryl 25-50 mg IM or slow IV push.
Max. 400mg/day
Nebulizer with *Albuterol* 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS)

Pediatric EMT-P

Administer medications:

Epinephrine (1:1000) 0.01 mg/kg SC max dose 0.3 mg.

Nebulizer with *Albuterol* 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS).

Use half dose if child < 30 kg or 66 lbs.
If unable to establish IV -- Establish IO
Benadryl 1-2 mg/kg IM or IV - IO slow push

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Administer high flow oxygen, consider blow-by oxygen.
 2. Determine if child has prescribed preloaded epinephrine (**Epi-pen Jr**).
If child is >25 kg or 55 lbs use Epi-pen.
 3. If patient does not have epinephrine auto-injector available, transport immediately. Consider ALS intercept.
 4. **Contact medical direction for order to assist with the administration of preloaded epinephrine.**
 5. Reassess in two minutes.
 6. Be prepared to assist respirations.
 7. Record reassessment findings.
 8. If condition fails to improve or remains unstable contact medical direction for order to **give additional dose.**
 9. Explain procedures to child.
 10. Treat for shock (hypoperfusion) if present.
 11. Elevate legs if signs of shock.
 12. If child is pulseless, proceed with CPR.

ALTERED MENTAL STATUS

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Determine if patient can swallow.
 2. **Contact medical direction for glucose order.**
 3. **Administer one tube of oral glucose if patient is able to swallow.**
 4. Monitor airway closely.
 5. Transport patient in semi-sitting position.

UNCONSCIOUS DIABETIC PATIENT

1. Open and maintain patent airway.
2. Administer high flow oxygen.
3. Ventilate with BVM at 15 LPM, if respirations are inadequate.
4. Transport immediately to medical facility.
Consider ALS intercept.

HISTORY OF DIABETES

Special Pediatric Considerations

- Children who have diabetes are more at risk for medical emergencies than adults. Children are more active than adults and exhaust blood sugar levels by playing too hard, especially if they have taken their prescribed insulin.
- Children are also less likely to be disciplined about eating correctly and on time. As a consequence, children are more at risk of hypoglycemia.

EMT-I

Establish IV access at a TKO rate.
Determine blood glucose level. If below 80 ml./dl
D50 - one amp for glucose <80, if caregiver has completed the D₅₀ module.
Consider intubation if condition indicates.

EMT-P

If unable to establish IV access, give:
Glucagon 1 mg IM.
Consider maintaining airway with intubation.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Recommended dose for **D25** IV or IO:
0.5 to 1 g/kg of a 25% solution.
If vascular access cannot be obtained, give
Glucagon IM.
Recommended dose for Glucagon IM:
Children > 20 kg -- **Glucagon** 1 mg
Children < 20 kg -- **Glucagon** 0.5 mg

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Determine if child can swallow.
 2. **Contact medical direction for glucose order.**
 3. **Administer oral glucose if child is able to swallow.**
 4. Monitor airway closely.
 5. Transport patient in semi-sitting position.
 6. Explain procedures to child.

UNCONSCIOUS DIABETIC CHILD

1. Open and maintain patent airway.
2. Administer high flow oxygen, consider blow-by oxygen.
3. Ventilate with BVM at 15 LPM, if respirations are inadequate.
4. Transport immediately to medical facility.
Consider ALS intercept.

APPARENT DEATH

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. If apparent death is confirmed:
 - a. The county medical examiner and law enforcement shall be contacted.
 - b. Follow local protocol, and if possible remain at the scene until the arrival of law enforcement and the county medical examiner.
 - c. Provide psychological support for grieving survivors.
 - d. Document reason no resuscitation was initiated.

Special Considerations

Apparent death indications include:

- Signs of trauma are conclusively incompatible with life.

- There is physical decomposition of the body.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. If apparent death is confirmed:
 - a. The county medical examiner and law enforcement shall be contacted.
 - b. Follow local protocol, and if possible remain at the scene until the arrival of law enforcement and the county medical examiner.
 - c. Provide psychological support for grieving survivors.
 - d. Document reason no resuscitation was initiated.

BITE
SNAKE BITES

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. BE ALERT for respiratory difficulty. Maintain airway.
2. Administer high flow oxygen.
3. Check patient for marks, rashes or welts.
4. Try to identify source of bite or type of snake.
5. Transport to hospital immediately, closely monitoring patient's vital signs en route. Consider ALS intercept.
6. Notify hospital en route of patient's problem and status.
7. Follow anaphylactic - allergic reaction protocol if patient condition indicates.
8. Minimize patient movement and immobilize bitten extremity.
9. DO NOT elevate bitten extremity; keep below level of the heart.

EMT-I

Establish IV access at a TKO rate.
If signs of shock. Give fluid bolus.
Consider intubation if condition indicates.

Pediatric EMT-I

If signs of shock. Give fluid bolus of LR or NS and give 20 cc/kg. May repeat bolus.

EMT-P

Consider maintaining airway with intubation.
Monitor cardiac rhythm and treat as needed.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. BE ALERT for respiratory difficulty. Maintain airway.
2. Administer high flow oxygen.
3. Check child for marks, rashes or welts.
4. Try to identify source of bite or type of snake.
5. Transport to hospital immediately, closely monitoring child's vital signs en route. Consider ALS intercept.
6. Notify hospital en route of child's problem and status.
7. Follow anaphylactic - allergic reaction protocol if patient condition indicates.
8. Minimize child's movement and immobilize bitten extremity.
9. DO NOT elevate bitten extremity; keep below level of heart.

BITES AND STINGS

ADULT PROTOCOLS

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. BE ALERT for respiratory difficulty; maintain airway.
 2. Administer high flow oxygen.
 3. Check patient for marks, rashes or welts.
 4. Try to identify source of bite or sting.
 5. Transport to hospital immediately, closely monitoring patient's vital signs en route. Consider ALS intercept.
 6. Notify hospital en route of patient's problem and status.
 7. Follow anaphylactic - allergic reaction protocol, if patient condition indicates.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat if needed.
Consider intubation if condition indicates.
Consider administration of medications:
Epinephrine (1:1000) 0.2-0.5 mg SC or 0.1-0.25 mg IV may repeat every 10-15 minutes- max dose 1 mg
Benadryl 25-50 mg IM or slow IV push. Max. 400mg/day
Nebulizer with **Albuterol** 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS).

Pediatric EMT-P

Medication dosage:
Epinephrine 0.01 mg/kg (1:1000) SC,- max dose 0.3 mg
If unable to establish IV -- Establish IO.
Benadryl 1-2 mg/kg IM or slow IV or IO push
Nebulizer with **Albuterol** 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS) may use half dose for children < 30 kg or 66 lbs.

PEDIATRIC PROTOCOLS

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. BE ALERT for respiratory difficulty; maintain airway.
 2. Administer high flow oxygen.
 3. Check child for marks, rashes or welts.
 4. Try to identify source of bite or sting.
 5. Transport to hospital immediately, closely monitoring child's vital signs en route. Consider ALS intercept.
 6. Notify hospital en route of child's problem and status.
 7. Follow anaphylactic - allergic reaction protocol if child's condition indicates.

BURNS
CHEMICAL

DULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If chemical is liquid, remove contaminated clothing and jewelry. Irrigate the skin with water.
2. If chemical is a dry powder, brush off powders with a cloth, prior to flushing.
3. Immediately begin to flush with large amounts of water.
4. Administer oxygen, if indicated.
5. Continue flushing the contaminated area when en route to the receiving facility.
6. Watch for hypothermia.
7. Do not contaminate uninjured areas while flushing!
8. Continually reassess the airway.
9. Attempt to identify contaminant.

Special Pediatric Considerations

- Burns pose greater risks to infants and children. This is because their body surface area is greater in relation to their total body size. This results in greater fluid and heat loss than would be found in an adult patient.
- Consider the possibility of child abuse. (Refer to suspected child/elder abuse protocol.)
- To estimate percent of body surface area injured, you may use the "Rule of Palm". The patient's palm size equals approximately 1 percent of the body surface area.
- Continually reassess the airway; children's airways are smaller and shorter. They are more likely to be affected by swelling.

EMT-I

Establish large bore IV, if indicated.
Consider intubation if condition indicates.

EMT-P

Consider intubation, if airway involvement.
Monitor cardiac rhythm and treat as needed.
Consider administration of medications:

Morphine 2-10 mg IV or IM

Pediatric EMT-P

If unable to establish IV -- Establish IO.

Medication dosages:

Morphine 0.1 mg/kg IV, IO, IM or SC; may repeat dose times 1.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If chemical is liquid, remove contaminated clothing and jewelry. Irrigate the skin with water.
2. If chemical is a dry powder, brush off powders with a cloth, prior to flushing.
3. Immediately begin to flush with large amounts of water.
4. Administer oxygen, consider blow-by.
5. Continue flushing the contaminated area when en route to the receiving facility.
6. Watch for hypothermia.
7. Do not contaminate uninjured areas while flushing!
8. Continually reassess the airway.
9. Attempt to identify contaminant.
10. Explain procedures to child.
11. Allow child to be near parent; making sure that the parents do not become contaminated.

BURNS
CHEMICALS IN THE EYE

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Remove contact lenses.
2. Flush with copious amounts of water.
3. Attempt to identify contaminant.
4. Cover both eyes with sterile dressing.
5. Apply burn dressing using sterile technique.

EMT-I

Establish a large bore IV, if indicated.
Consider intubation if condition indicates.

EMT-P

Consider intubation if airway affected by
chemicals.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Remove contact lenses.
2. Flush with copious amounts of water.
3. Attempt to identify contaminant.
4. Cover both eyes with sterile dressing.
5. Explain procedures to child.

BURNS
ELECTRICAL

ADULT PROTOCOL

FIRST RESPONDER AND EMT - B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen.
2. Monitor closely for respiratory and cardiac arrest (consider need for AED).
3. Treat soft tissue injuries associated with the burn with a dry dressing.
4. Treat for shock if indicated.
5. Do not apply ointment, salves or sprays.
6. All electrical burns should be evaluated by a physician.

Special Considerations

- Do not attempt to remove patient from the electrical source unless trained to do so.
- If patient is in contact with the electrical source or you are unsure, do not touch the patient.

EMT-I

Establish large bore IV, if indicated.
Consider intubation if condition indicates.

EMT-P

Consider intubation if condition indicates.
Monitor cardiac rhythm, treat as needed.
Consider administration of medication:
Morphine 2-10 mg IV or IM

Pediatric EMT-P

If unable to establish IV -- Establish IO.

Medication dosages:

Morphine 0.1 mg/kg IV, IO, IM or SC; may repeat dose times 1.

Children are defibrillated at 2 joules per kg, if Ventricular Fibrillation occurs - then at 4 joules per kg for subsequent defibrillation.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen.
2. Monitor closely for respiratory and cardiac arrest.
3. Consider need for AED - If the child is 8 years of age or older, follow the adult protocol. AED's are NOT recommended for infants and young children.
4. Treat soft tissue injuries associated with the burn with a dry dressing.
5. Treat for shock if indicated.
6. Do not apply ointment, salves or sprays.
7. All electrical burns should be evaluated by a physician.
7. Explain procedures to child.

BURNS
THERMAL

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Stop the burning process, initially with water or saline.
2. Remove smoldering clothing and jewelry.
3. Continually monitor the airway.
4. Administer high flow oxygen.
5. Cover the burned area with a dry, sterile dressing. If burned area is < 20% and first or second degree burns you may want to use a wet or gel dressing.
6. Do not use any type of ointment, lotion or antiseptic.
7. Do not break blisters.
8. Transport immediately; consider ALS intercept.
9. Use “rule of nines” to estimate percent of body surface area injured (refer to pictures).
10. Estimate depth of burn as superficial, partial thickness or full thickness.
11. Keep patient warm; protect from hypothermia.

Special Pediatric Considerations

- Burns pose greater risks to infants and children. This is because their body surface area is greater in relation to their total body size. This results in greater fluid and heat loss than would be found in an adult patient.
- Consider the possibility of child abuse. (Refer to suspected child/elder abuse protocol.)
- To estimate percent of body surface area injured, you can use the “Rule of Palm”. The patient’s palm size equals approximately 1 percent of the body surface area.
- Continually reassess the airway; children’s airways are smaller and shorter. They are more likely to be affected by swelling.

EMT-I

Establish a large bore IV and infuse as condition indicates.

Consider intubation if condition indicates.

EMT-P

Consider intubation, if condition indicates.

Consider monitoring cardiac rhythm and treat as needed.

Consider administration of medications:

Morphine 2 - 10 mg IV, slow push

Pediatric EMT-P

Establish IV or IO, fluid bolus of NS 20 cc/kg repeat bolus as needed.

Consider administration of medications:

Morphine 0.1 mg/kg IV or IO; may repeat dose times 1.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Stop the burning process, initially with water or saline.
2. Remove smoldering clothing and jewelry.
3. Continually monitor the airway.
4. Administer high flow oxygen, consider blow-by.
5. Cover the burned area with a dry, sterile dressing.
6. Do not use any type of ointment, lotion, or antiseptic.
7. Do not break blisters.
8. Transport immediately; consider ALS intercept.
9. Use “rule of nines” or “rule of palm” to estimate percentage of body surface area injured (refer to pictures).
10. Estimate depth of burn as superficial, partial thickness or full thickness.
11. Keep child warm; protect from hypothermia.
12. Explain procedures to child

CHARACTERISTICS OF BURNS

First Degree -- Superficial

Dry, red, slight swelling. Very painful and involves only the epidermis or most superficial layer.

Second Degree -- Partial thickness

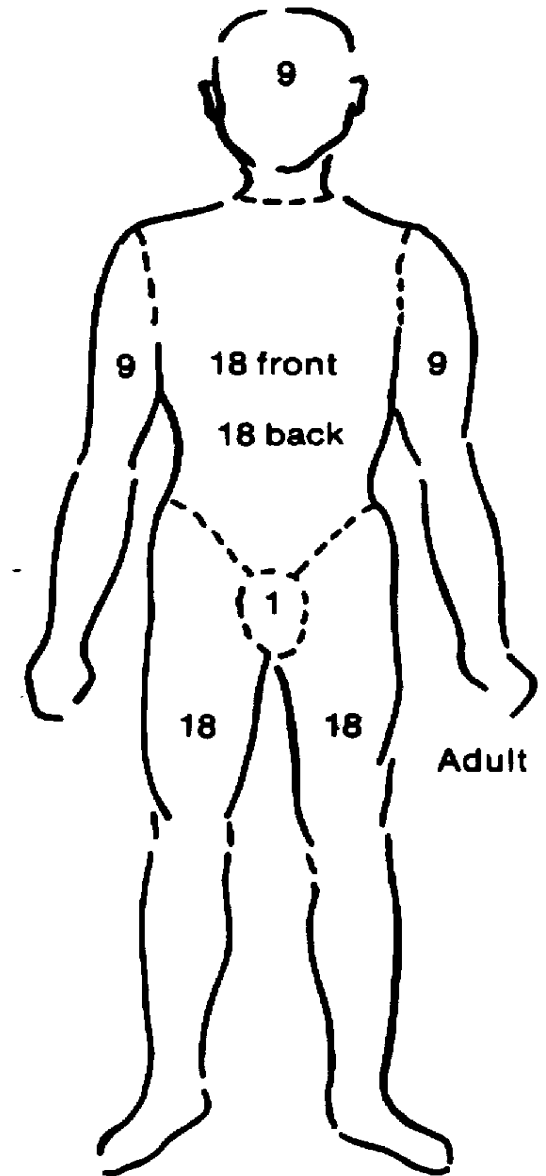
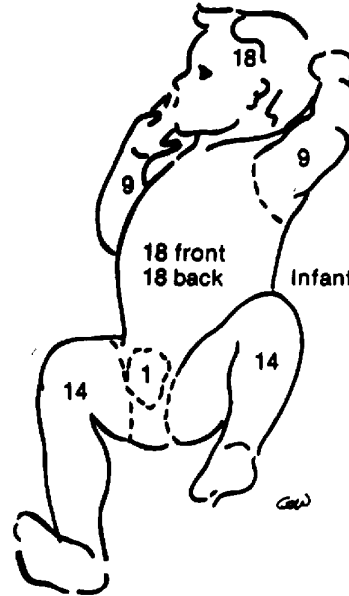
Blistered mottled pink or red, may be deep red - tan, moist. Very painful and sensitive to air and involves the epidermis and the dermis.

Third Degree -- Full thickness

May still have blistered areas, leathery surface charred black, white or deep red. Usually painless and involves the epidermis, dermis and the cells responsible for regeneration. May involve both muscle and bone.

BURNS (CONTINUED)

RULE OF NINES



CARDIAC ARREST
AUTOMATED EXTERNAL
DEFIBRILLATION

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Follow current 2005 AHA guidelines for all CPR practices.
 - 2. Transport immediately, consider ALS intercept.
 - 3. Consider combi-tube if condition indicates.
 - 4. If pulse and breathing return:
 - a. Maintain airway.
 - b. Support breathing with high flow oxygen.

EMT-I

Establish IV access if condition indicates. This should not be done until after the first shock is completed.
Consider intubation or combi-tube if condition indicates.
DO NOT delay transport to start an IV or secure the airway.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Confirm if this is a cardio-pulmonary arrest. Check breathing and pulse.
 - 2. Perform CPR.
 - 3. Airway and artificial ventilation are of prime importance. Provide high flow oxygen, with BVM if necessary.
 - 4. If the child is over 1 year of age, use the AED following the adult protocol.
 - 5. If the child is younger than 1 years of continue CPR.
 - 5. Transport immediately; consider ALS intercept.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If trauma-related, refer to trauma protocol.
2. If suspected acute myocardial infarction, place patient in position of comfort, loosen tight clothing and reassure.
3. Administer high flow oxygen.
4. Contact medical direction for orders.
5. If the patient has been prescribed nitroglycerin (patients own nitro) and blood pressure is greater than 100 systolic, give one dose.
6. Repeat one dose in 3-5 minutes if no relief and authorized by medical direction, up to maximum of three doses.
7. Reassess vital signs and chest pain after each dose.
8. If blood pressure less than 100 systolic or patient does not have prescribed nitro, transport promptly, continuing assessment and supportive measures. Call for ALS intercept.
9. Switch defibrillator cables to monitor cables. Record EKG for 20 seconds.
DO NOT LET MONITORING INTERFERE WITH TREATMENT OR TRANSPORT OF PATIENT.
10. If patient is able to swallow, has no history of aspirin allergy or sensitivity, or possible GI bleed, consider administration of aspirin, 325mg by mouth.

CARDIAC CHEST PAIN

Special Considerations

- Patients with any of the following chief complaints should be treated as suspected acute myocardial infarction, unless ordered otherwise:
 - a. Chest pain or pressure.
 - b. Syncopal episode.
 - c. Unexplained respiratory distress.
 - d. Atypical cardiac pain (such as shoulder, arm, or jaw pain, especially in patients having past cardiac history or irregular pulse).
- In young adults check for history of cocaine and methamphetamine use.

EMT-I

Establish IV access at TKO rate.
Consider intubation if condition indicates.
If caregiver has taken nitroglycerin administration module, may administer up to 3 doses of **Nitroglycerin Spray** if SBP >100 mmHg.

EMT-P

Monitor cardiac rhythm and treat as needed.
Consider intubation if condition indicates.
Administer medications:
ASA 325mg chewed and swallowed
Nitroglycerin Spray 0.4 mg/spray, if SBP >100 mmHg.
Nitroglycerins drip - start at 5 mcg/min.
Titrate to pain and SBP at 5 mcg increments.
Morphine 2-10 mg IV, slow push
Obtain and transmit 12 lead EKG if available.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If trauma-related, refer to trauma protocol.
2. In young adults, be sure to think about drug usage, such as cocaine and methamphetamine.
3. Provide life-sustaining measures.
4. Transport immediately, consider ALS intercept.

PEDIATRIC EMT-P

Consider medications:

Morphine 0.1-0.2 mg/kg IV, IO may repeat times 1.

Contact medical direction for additional orders.

CARDIAC DYSRHYTHMIAS
ASYSTOLE

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Follow current 2005 AHA guidelines for all CPR practices.
 - 2. Transport immediately, consider ALS intercept.
 - 3. Consider combi-tube if condition indicates.
 - 4. If pulse and breathing return:
 - a. Maintain airway.
 - b. Support breathing with high flow oxygen.

Special Considerations

- Confirm asystole in at least 2 leads.
- Consider defibrillation if rhythm is unclear and the possibility of ventricular fibrillation exists.
- Consider possible causes and treat:
 - Hypoxia
 - Hyper or Hypokalemia
 - Preexisting acidosis
 - Drug overdose
 - Hypothermia

EMT-I

Establish IV access if condition indicates. This should not be done until after the first shock is completed.

Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Monitor cardiac rhythm and treat as needed.

Medications:

Epinephrine 1 mg IV or ET, repeat every 3-5 min.

Atropine 1 mg IV or ET, repeat every 3-5 min. up to a total of .04 mg/kg

Vasopressin 40 unit one time dose.
(1st or 2nd Vasopressor)

Consider Pacing

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Open and maintain airway.
 - 2. Provide artificial ventilation with BVM and high flow oxygen.
 - 3. Assess brachial or femoral pulse. If absent, begin CPR.
 - 4. If the child is over 12 years of age and greater than 90 lbs. consider use of AED, refer to AED protocol.
 - 5. Continue CPR and call for ALS intercept.
 - 6. Transport child and advise hospital en route of any information gathered during assessment.

Pediatric EMT-P

If unable to intubate or initiate IV - Establish IO.
Medications:

Epinephrine 0.01 mg/kg (1:10,000) IV, IO.
Subsequent doses should be 0.1 mg/kg (1:1000); may repeat every 3-5 min.

CARDIAC DYSRHYTHMIAS
BRADYCARDIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
Follow current 2005 AHA guidelines for all CPR practices.
- B. Emergency medical care:
1. Open and maintain airway.
 2. Provide artificial ventilation if needed, and give high flow oxygen.
 3. Assess carotid pulse and vital signs.
 4. If cardiorespiratory compromise, call for ALS intercept.
 5. Transport patient and advise hospital en route of any information gathered during assessment.
 6. Switch defibrillator cables to monitor cables. Record EKG for 20 seconds.

DO NOT LET MONITORING INTERFERE WITH TREATMENT OR TRANSPORT OF PATIENT.

Special Considerations

- Severe cardiorespiratory compromise may be indicated by:
 - Poor perfusion
 - Hypotension
 - Respiratory difficulties

EMT-I

Establish IV access if condition indicates.
Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Consider intubation, if condition indicates.

Medications:

Atropine 0.5mg IV (3 mg Max Dose)

Dopamine 5-20 mcg/kg/min titrated as ordered.

Consider Pacing

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Open and maintain airway. Look for signs of obstructed airway.
 2. Provide artificial ventilation if needed, and give high flow oxygen.
 3. Assess brachial or femoral pulse and vital signs.
 4. Perform chest compressions if, despite adequate ventilation with oxygen, heart rate is < 60 beats/min in infant or child associated with poor systemic perfusion.
 5. If cardiorespiratory compromise, call for ALS intercept.
 6. Transport child and advise hospital en route of any information gathered during assessment.
 7. Explain procedures to child.

Pediatric EMT-P

If unable to intubate or initiate IV - Establish IO.
Medications:

Epinephrine 0.01 mg/kg (1:10,000) IV, IO.

Repeat every 3-5 min.

Atropine 0.02 mg/kg IV, IO or ET.

Minimum dose 0.1 mg. Maximum dose for child = 0.5 mg

CARDIAC DYSRHYTHMIA
PULSELESS ELECTRICAL ACTIVITY

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Follow current 2005 AHA guidelines for all CPR practices.
 - 2. Transport immediately, consider ALS intercept.
 - 3. Consider combi-tube if condition indicates.
 - 4. If pulse and breathing return:
 - a. Maintain airway.
 - b. Support breathing with high flow oxygen.

Special Considerations

- Identify and treat causes:
 - Severe hypoxemia
 - Severe acidosis
 - Severe hypovolemia
 - Tension pneumothorax
 - Cardiac tamponade
 - Profound hypothermia
 - Drug overdose
 - Massive acute myocardial infarction

EMT-I

Establish IV access.
Consider intubation or combi-tube.
DO NOT delay transport to start an IV or secure the airway.

EMT-P

Monitor cardiac rhythm and treat as needed.
Intubate patient.
Medications:
Epinephrine 1 mg IV or ET, repeat every 3-5 min.
Atropine 1 mg IV or ET, repeat every 3-5 min to a total of .04 mg/kg.
Vasopressin 40 unit one time dose.
(1st or 2nd Vasopressor)
Consider Pacing

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Open and maintain airway.
 - 2. Provide artificial ventilation with high flow oxygen.
 - 3. Assess brachial or femoral pulse. If absent, begin CPR.
 - 4. Continue CPR and call for ALS intercept.
 - 5. Transport child and advise hospital en route of any information gathered during assessment.

Pediatric EMT-P

If unable to intubate or initiate IV - Establish IO.
Medications:
Epinephrine 0.01 mg/kg IV, IO, or ET (1:10,000). Second and subsequent doses should be 0.1 mg/kg (1:1000); may repeat every 3-5 min.

CARDIAC DYSRHYTHMIAS
SUPRAVENTRICULAR OR UNCERTAIN
TACHYCARDIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Assess and maintain airway.
2. Provide high flow oxygen and artificial respirations if needed.
3. Assess carotid pulse. If absent, begin CPR.
4. Continue CPR and call for ALS intercept.
5. If pulse present -- assess vital signs.
6. Review history.
7. Perform physical examination while en route to hospital.
8. Transport patient and advise hospital en route of any information gathered during assessment.
9. Switch defibrillator cables to monitor cables. Record EKG for 20 seconds.
DO NOT LET MONITORING INTERFERE WITH TREATMENT OR TRANSPORT OF PATIENT.

Special Pediatric Considerations

- Supraventricular tachycardia:
Infants -- rate usually > 220 bpm
Children -- rate usually >180 bpm
- Children rarely require cardioversion.

EMT-I

Establish IV access if condition indicates.
Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

If pt. is unstable move directly to Synchronized Cardioversion following AHA guidelines.

Monitor cardiac rhythm and treat as needed.
Consider vagal maneuvers.

Medications for compromised patient:

Adenosine 6 mg, rapid IV push over 1-3 seconds. Wait 1 - 2 minutes

Adenosine repeat dose at 12 mg, rapid IV push over 1 - 3 seconds, may repeat 12 mg in 1-2 minutes.

Cardiazem 0.25mg/kg over 5 min **slow push.**

Verapamil 2.5-5 mg IV slowly.

Amiodarone 150 mg infused over 10 min.

Continuously monitor BP during medication administration.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Assess and maintain airway.
2. Provide high flow oxygen, consider blow-by. If needed, provide artificial respirations.
3. Assess brachial or femoral pulse. If absent, begin CPR.
4. Continue CPR and call for ALS intercept.
5. If pulse present -- assess vital signs.
6. Review history.
7. Perform physical examination while en route to hospital.
8. Transport child and advise hospital en route of any information gathered during assessment.
9. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

Medications for compromised child:

Adenosine 0.1 mg/kg, rapid IV or IO push, follow by rapid NS 2 - 5 mL bolus. May double dose of Adenosine and repeat once. Maximum dose 12 mg.

Consider synchronized cardioversion if child in a compromised state at 0.5 to 1.0 J/kg.

Contact medical direction for additional orders.

CARDIAC DYSRHYTHMIAS
VENTRICULAR FIBRILLATION
OR
PULSELESS VENTRICULAR
TACHYCARDIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Follow current 2005 AHA guidelines for all CPR practices.
 - 2. Transport immediately, consider ALS intercept.
 - 3. Consider combi-tube if condition indicates.
 - 4. If pulse and breathing return:
 - a. Maintain airway.
 - b. Support breathing with high flow oxygen.

Special Considerations

- Do not delay defibrillation.

EMT-I

Establish IV access.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.
Defibrillate up to 3 times if needed, (200J, 300J, 360J).
If persistent or recurrent VF/VT:
Continue CPR.
Intubate patient.
Establish IV.
Medications:
Epinephrine 1 mg IV or ET repeat every 3-5 minutes.
Defibrillate 360J
Consider **Lidocaine** 1.0 - 1.5 mg/kg IV push, if complex wide. Can repeat at 0.5-.75 mg/kg. Max dose 3mg/kg.
Pattern should be drug-shock, drug-shock.
If refractory to 3 shocks and Epinephrine consider **Vasopressin** 40 units IV one time dose

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Open and maintain airway.
 - 2. Provide artificial ventilation with high flow oxygen.
 - 3. Assess brachial or femoral pulse. If absent, begin CPR.
 - 4. Continue CPR and call for ALS intercept.
 - 5. Transport child and advise hospital en route of any information gathered during assessment.

Pediatric EMT-P

Monitor cardiac rhythm and treat as needed.
Defibrillate up to 3 times if needed, (2 J/kg, 4 J/kg, 4 J/kg).
Medications:
Epinephrine 0.01 mg/kg IV, IO (1:10,000).
Defibrillate 4 J/kg after each medication
If unable to establish IV -- Establish IO.
Lidocaine 1 mg/kg IV, IO or ET.
Pattern should be drug-shock, drug-shock.

CARDIAC DYSRHYTHMIAS
VENTRICULAR TACHYCARDIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Assess and maintain airway.
 2. Provide high flow oxygen.
 3. Assess carotid pulse. If absent, begin CPR. Consider use of AED, refer to AED protocol.
 4. Continue CPR and call for ALS intercept.
 5. If pulse present -- assess vital signs.
 6. Review history.
 7. Perform physical examination while en route to hospital.
 8. Transport patient and advise hospital en route of any information gathered during assessment.

EMT-I

Establish IV access.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.
Consider manual cardioversion if vitals unstable.
Obtain 12 lead EKG, if available.
Intubate patient, if condition indicates.

Medications:

Lidocaine 1.0 - 1.5 mg/kg IV push, if complex wide. Can repeat at 0.5-.75 mg/kg.
Max dose 3mg/kg.
Amiodarone 150mg IV over 10 min

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Assess and maintain airway.
 2. Provide high flow oxygen, consider blow-by.
 3. Assess brachial or femoral pulse. If absent, begin CPR.
 4. Continue CPR and call for ALS intercept.
 5. If pulse present -- assess vital signs.
 6. Review history.
 7. Perform physical examination while en route to hospital.
 8. Transport child and advise hospital en route of any information gathered during assessment.
 9. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Medications:

Lidocaine 1 mg/kg IV, IO or ET.
If child unstable consider, synchronized cardioversion at 0.5 to 1.0 J/kg.

CARDIOPULMONARY RESUSCITATION

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Follow current 2005 AHA guidelines for all CPR practices.
 - 2. Transport immediately, consider ALS intercept.
 - 3. Consider combi-tube if condition indicates.
 - 4. If pulse and breathing return:
 - a. Maintain airway.
 - b. Support breathing with high flow oxygen.

IF CPR IS NEEDED FOR AN ADULT PATIENT, CONSIDER INITIATING THE AED PROTOCOL.

Special Considerations

- Successful resuscitations have been documented after prolonged periods of cold-water submersion.
- You may obtain current BLS/CPR and ACLS guidelines from:
American Heart Association

EMT-I

Establish IV access if condition indicates. Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Medications per AHA/ACLS guidelines.

Pediatric EMT-P

If unable to intubate or establish IV - Initiate IO. Follow appropriate cardiac dysrhythmia protocol.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 - 1. Determine unresponsiveness.
 - 2. Open airway and assess for breathing. If not breathing, give 2 slow breaths by BVM with high flow oxygen.
 - 3. Briefly check for a brachial or femoral pulse.
 - 4. Consider using AED for children over 1 year of age, refer to AED protocol.
 - 5. If no pulse, follow current 2005 AHA guidelines for pediatric CPR.
 - 6. Continue CPR and transport child, request ALS intercept.

Child not breathing - with femoral or brachial pulse:

- 1. Provide artificial respirations with high flow oxygen with a BVM. Infants and children should receive 20 breaths per minute (one every three seconds).
- 2. Attempt to identify the cause of respiratory arrest.
- 3. Transport immediately, request ALS intercept.

CONGESTIVE HEART FAILURE
PULMONARY EDEMA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Place patient in position of comfort, typically sitting up. Loosen tight clothing and reassure.
 2. Administer high flow oxygen, or consider assisting ventilation's.
 3. Transport immediately if the patient has any of the following:
 - a. No history of cardiac problems.
 - b. Systolic blood pressure of less than 100 mmHg.
 - c. History of cardiac problems, but does not have nitro.
 4. Consider ALS intercept.

Special Considerations

- Congestive heart failure (CHF) is a condition of excessive fluid buildup in the lungs and/or other organs and body parts. The fluid buildup causes edema or swelling.
- The disorder is termed congestive because the fluids congest, or clog, the lungs.
- It is termed heart failure because the congestion both results from and also aggravates failure of the heart to function properly.

Special Pediatric Considerations

- Most children with congestive heart failure or pulmonary edema will have a history of some form of congenital anomaly or cardiac history.

EMT-I

Establish IV access at TKO rate.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.
Consider starting CPAP @ 10 in/H₂O.
Consider intubation if condition indicates.
Consider administration of medications:
Lasix 0.5 –1mg/kg IV slow push
Morphine 2-10 mg IV slow push
Nitroglycerin Spray 0.4 mg/spray, if SBP >100 mmHg.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Place child in position of comfort, typically sitting up. Loosen tight clothing and reassure.
 2. Maintain patent airway and watch closely for respiratory distress.
 3. Administer high flow oxygen; consider blow-by.
 4. Transport immediately if the child is showing signs of respiratory distress.
 5. Consider ALS intercept.
 6. Reassess child and vital signs frequently.
 7. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact medical control for additional orders.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:

1. Remove the patient from the environment.
2. Protect the cold-injured extremity from further injury.
3. Administer high flow oxygen.
4. Remove wet or restrictive clothing.
5. Splint extremity.
6. Do *not* rub or massage.
7. Do not re-expose to the cold.
8. Remove jewelry.
9. Cover with dry clothing or dressings.
10. Transport to an appropriate medical facility. Consider ALS intercept.

C. *If an extremely long or delayed transport is inevitable (Contact medical direction prior to the following):*

- A. Start rapid rewarming. (Immerse the affected part in warm water of 100-105 degrees Fahrenheit.)
- B. Monitor the water to ensure it does not cool from the frozen part.
- C. Continuously stir water.
- D. Continue until the part is soft and color and sensation return.
- E. Dress the area with dry sterile dressings.
- F. Protect against refreezing.

COLD EMERGENCIES FROSTBITE

Special Considerations

- Shivering occurs between 32° to 37° C or 90° to 98.6° F (but not below). This is a fair indicator of the severity of hypothermia in the patient.
- Do not allow the patient to eat or drink stimulants.
- The hypothermic myocardium may be unresponsive to cardio-active drugs, pacemaker stimulation, and defibrillation.
- Medicines may accumulate to toxic levels.
- After failed initial resuscitative measures, avoid defibrillation or drug therapy until core temp is greater than 32° C or 90° F.

EMT-I

Establish IV access and administer warmed IV fluids.

Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Consider intubation if condition indicates. Monitor cardiac rhythm and treat as needed. Consider administration of medications:

Morphine 4-10 mg IV or IM.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

Medication dosage:

Morphine 0.1 mg/kg IV, IO, IM, or SC; may repeat times 1.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:

1. Remove the child from the environment.
2. Protect the cold-injured extremity from further injury.
3. Administer high flow oxygen, consider blow-by.
4. Remove wet or restrictive clothing.
5. Splint extremity.
6. Do *not* rub or massage.
7. Do not re-expose to the cold.
8. Remove jewelry.
9. Cover with dry clothing or dressings.
10. Cover infant's head to maintain body heat.
11. Transport to an appropriate medical facility. Consider ALS intercept.
12. Explain procedures to child.

C. *If an extremely long or delayed transport is inevitable (Contact medical direction prior to the following):*

- A. Start rapid rewarming. (Immerse the affected part in warm water of 100-105 degrees Fahrenheit.)
- B. Monitor the water to ensure it does not cool from the frozen part.
- C. Continuously stir water.
- D. Continue until the part is soft and color and sensation return.
- E. Dress the area with dry sterile dressings.
- F. Protect against refreezing.

COLD EMERGENCIES
HYPOTHERMIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
B. Emergency medical care:

1. Remove the patient from the cold environment, protect from further heat loss.
2. Remove wet clothing and cover with blanket.
3. Administer high flow oxygen with warmed and humidified if possible.
4. Assess pulses for 30 to 45 seconds before initiating CPR.
5. Check core body temp. if able.
6. If patient is alert and responding appropriately, actively rewarm with heat packs to neck, armpits and groin; warm blankets; and turn up heat in the patient compartment of the ambulance.
7. If patient is unresponsive or not responding appropriately, rewarm cautiously with warm blankets and turn up the heat in the patient compartment of the ambulance.
8. Obtain vital signs every 5 minutes.
9. All cold emergencies should be transported as soon as possible to an appropriate medical facility. Consider ALS intercept.
10. Maintain horizontal position of patient.
11. Avoid rough handling.
12. Do NOT massage extremities.
13. Never assume a cold, pulseless patient is dead.

Special Considerations

- Shivering occurs between 32° to 37° C or 90° to 98.6° F (but not below). This is a fair indicator of the severity of hypothermia in the patient.
- Do not allow the patient to eat or drink stimulants.
- The hypothermic myocardium may be unresponsive to cardio-active drugs, pacemaker stimulation and defibrillation.
- Medicines may accumulate to toxic levels.
- After failed initial resuscitative measures, avoid defibrillation or drug therapy until core temp is greater than 32° C or 90° F.

EMT-I

Establish IV access and administer warmed fluids. Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Monitor cardiac rhythm and treat as needed. Consider intubation, if indicated.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact medical control for additional orders.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
B. Emergency medical care:

1. Remove the child from the cold environment; protect from further heat loss.
2. Remove wet clothing and cover with blanket.
3. Administer high flow oxygen warmed and humidified.
4. Assess pulses for 30 to 45 seconds before initiating CPR.
5. Check core body temp. if able.
6. Cover infant's head to prevent heat loss.
7. If child is alert and responding appropriately, actively rewarm with heat packs to neck, armpits, and groin; warm blankets; and turn up heat in the patient compartment of ambulance.
8. If child is unresponsive or not responding appropriately, rewarm cautiously with warm blankets and turn up the heat in the patient compartment of the ambulance.
9. Obtain vital signs every 5 minutes.
10. All cold emergencies should be transported as soon as possible to an appropriate medical facility. Consider ALS intercept.
11. Maintain horizontal position of patient.
12. Avoid rough handling.
13. Do NOT massage extremities.
14. Never assume a cold, pulseless child is dead.

DEATH OF A CHILD
AND/OR
SUDDEN INFANT DEATH SYNDROME

Special Considerations

- There is no normal reaction to the death of a child. Rescuers should not make any assumptions or judgments.
- Perform the initial assessment, environmental assessment and focused history as part of the clinical process.
- Observe, assess and document accurately and objectively.
- Consider initiating a CISD meeting for all personnel involved in the call. The death of a child or infant is always a stressful situation.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Establish unresponsiveness.
 2. Assess airway and breathing. Confirm apnea.
 3. Assess circulation and perfusion. Confirm absent pulse.
 4. Determine whether to perform further resuscitation measures:
 - a. If child/infant does not exhibit lividity or rigor, proceed with CPR and initiate immediate transfer. (Refer to CPR protocol.) Consider ALS intercept.
 - b. If child/infant exhibits lividity and rigor, do not resuscitate.
 - c. If death is confirmed:
 1. The county medical examiner and law enforcement shall be contacted.
 2. Follow local protocol, and if possible remain at the scene until the arrival of law enforcement and the county medical examiner.
 3. Provide psychological support for grieving survivors.
 4. Document reason no resuscitation was initiated.

HEAT EMERGENCIES

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Remove the patient from the hot environment and place in a cool environment (back of air conditioned ambulance).
2. Administer high flow oxygen.
3. Place in supine position with legs elevated.
4. Loosen or remove clothing.
5. Cool patient by applying water and fanning; apply cool packs to neck, groin and armpits.
6. If patient is alert, stable and not nauseated; have the patient slowly drink small sips of cool water.
7. If the patient is unresponsive or is vomiting; transport to an appropriate medical facility with patient on their left side. Consider ALS intercept.

Special Considerations

- Not all heat emergencies are environmental in nature. They may have febrile or neurological etiology.
- Rapid changes in body temperature may cause seizures. Rapid cooling may cause seizures or vomiting.
- Be alert for hypothermia

Special Pediatric Consideration

- Be prepared to treat febrile seizures in children.
- Consider sponging with TEPID water, not cool or cold, during transport. (DO NOT induce shivering).

EMT-I

Establish IV access if condition indicates.
Consider intubation if condition indicates.

EMT-P

Establish IV access if condition indicates.
Consider intubation if condition indicates.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Remove the child from the hot environment and place in a cool environment (back of air conditioned ambulance).
2. Administer high flow oxygen, consider blow-by.
3. Place in supine position with legs elevated.
4. Loosen or remove clothing.
5. Cool child by applying water and fanning; apply cool packs to neck, groin and armpits. (DO NOT induce shivering).
6. If child is alert, stable, and not nauseated, have the child slowly drink small sips of cool water.
7. Explain procedures to child.
8. If the child is unresponsive or is vomiting, maintain airway and transport to an appropriate medical facility with child on their left side. Consider ALS intercept.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

HYPERTENSIVE CRISIS

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen.
2. Keep patient quiet and calm.
3. Attempt to identify cause of hypertension.
4. Transport patient immediately, request ALS intercept.
5. Notify receiving facility of patient status and problems.
6. Monitor patient's vital signs closely.

Special Considerations

- A hypertensive crisis is a life-threatening elevation of blood pressure.
- Attention should be based on:
CNS - altered LOC, decrease vision, focal motor deficits.
Cardiovascular - angina, acute CHF, aortic dissection.

EMT-I

Establish IV access at TKO rate.

EMT-P

Medications that may be considered:

Morphine 2 - 10 mg IV to lower blood pressure.

Nitroglycerin spray 0.4 mg/spray to lower blood pressure.

Lopressr 2-5mg over 5 min.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen.
2. Keep child quiet and calm.
3. Attempt to identify cause of hypertension.
4. Transport child immediately, request ALS intercept.
5. Notify receiving facility of patient status and problems.
6. Monitor child's vital signs closely.
7. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact medical direction for additional orders.

NEAR DROWNING

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain patent airway with C-spine precautions.
2. Provide artificial ventilation if needed, and give high flow oxygen.
3. Assess circulation and perfusion.
4. Begin CPR if needed.
5. Maintain body temp. Cover with warm blanket and increase temperature in the patient compartment.
6. Transport patient, consider ALS intercept.

Special Considerations

- Be aware of possible hypothermia. Warm patient with blankets and keep ambulance compartment warm.

EMT-I

Establish IV access and administer warmed IV fluids.

Consider intubation or combi-tube if condition indicates.

DO NOT delay transport to start an IV or secure the airway.

EMT-P

Monitor cardiac rhythm and treat as needed.

Consider intubation if condition indicates.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain patent airway with C-spine precautions.
2. Provide artificial ventilation if needed, and give high flow oxygen.
3. Assess circulation and perfusion.
4. Begin CPR if needed.
5. Maintain body temp. Cover with warm blanket and increase temperature in the patient compartment.
6. Transport child, consider ALS intercept.
7. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

Contact medical direction for additional orders.

OBSTETRICAL EMERGENCIES

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *Frank breech* (Buttocks Presentation)
 - a. Allow spontaneous delivery.
 - b. Support infant's body as it is delivered.
 - c. If head delivers spontaneously, proceed with the normal delivery protocol.
 - d. Apply high flow oxygen.
 - e. If head DOES NOT deliver within 3 minutes, insert gloved hand into the vagina, keeping your palm TOWARD baby's face. Form a "V" with your fingers, and push wall of vagina AWAY from baby's face, thereby creating an airway for baby.
 - f. **TRANSPORT IMMEDIATELY.** Consider ALS intercept. **DO NOT REMOVE YOUR HAND UNTIL RELIEVED BY HOSPITAL STAFF.**
 - g. Advise receiving hospital en route of the problem. Consider ALS intercept.
2. *Limb Presentation*
 - a. Place mother in Trendelenberg position.
 - b. Administer high flow oxygen to mother.
 - c. **TRANSPORT TO HOSPITAL IMMEDIATELY**, notifying receiving hospital en route of the problem.

BREECH DELIVERY LIMB PRESENTATION PROLAPSED CORD MULTIPLE BIRTHS

Special Considerations

- Consider the possibility of pregnancy in any female of child bearing age with complaints of vaginal bleeding, menstrual cycle irregularity, abdominal cramping and/or pain, low back pain (not associated with trauma), or shoulder pain (not associated with trauma).
- The greatest risk to the mother is postpartum hemorrhage so watch closely for signs of hypovolemic shock and excessive vaginal bleeding.
- In instances where delivery is not proceeding normally and the mother exhibits sudden onset of severe abdominal pain and the clinical signs of shock, treat for shock.

EMT-I / EMT-P

Establish a large bore IV at TKO rate unless signs of shock. Give fluid challenge.

ADULT PROTOCOL

(Continued)

3. *Prolapsed Cord:*
 - a. Place mother in Trendelenberg position, and administer high flow oxygen.
 - b. Insert gloved hand into the vagina and gently push up on the baby's head to take pressure off the cord. **DO NOT REMOVE YOUR HAND UNTIL RELIEVED BY HOSPITAL STAFF.**
 - c. **TRANSPORT IMMEDIATELY TO HOSPITAL**, and notify receiving hospital en route of the problem. Consider ALS intercept.
4. *Multiple Births:*
 - a. This is usually not a surprise to the mother, but **BE ALERT** for the multiple birth possibility.
 - b. Monitor your patient closely.
 - c. Apply high flow oxygen.
 - d. Deliver as you would for normal delivery of one infant.
 - e. Consider ALS intercept.

If infant is delivered after any of these emergencies. Continue care following the protocol for Normal delivery beginning with #12.

OBSTETRICAL EMERGENCIES
CARE OF THE NEWBORN

NEWBORN PROTOCOL

FIRST RESPONDER AND EMT-B

1. To prevent/minimize heat loss:
 - a. Warm the external environment (use the engine heater, warm blankets, etc.).
 - b. Dry the infant thoroughly, removing the wet linen immediately after drying.
 - c. Wrap the newborn in blankets and cover the head in order to minimize heat loss.
2. Position the infant in a supine or slight Trendelenburg position with a small towel roll under the shoulders.
3. Using a bulb syringe, suction MOUTH first, then the NOSE.
4. Monitor baby's respiratory/circulatory status carefully.
5. Stimulate infant to breath by rubbing back or flicking the soles of the feet.
6. If pulse is < 100 or respirations < 20 begin artificial ventilation with high flow oxygen at a rate of 40 to 60 breaths/minute.
7. If respirations are adequate and the heart rate is < 60, continue artificial respirations and begin chest compression at 120 times/minute.
8. Transport to hospital; consider ALS intercept.

Special Newborn Considerations

- The vast majority of term newborns require no resuscitation beyond maintenance of temperature, suctioning of the airway and mild stimulation.
- Temperature (warm and dry)
- Airway (position and suction)
- Breathing (stimulate to cry)
- Circulation (heart rate and color)
- If amniotic fluid is a dark green stain, the baby was likely in distress during labor. Suction the newborn's mouth and nose as head is delivered. If ALS -- intubate and suction before baby's first breath if possible.
- Do NOT delay critical treatment of the newborn to obtain the one and five minute APGAR scores.

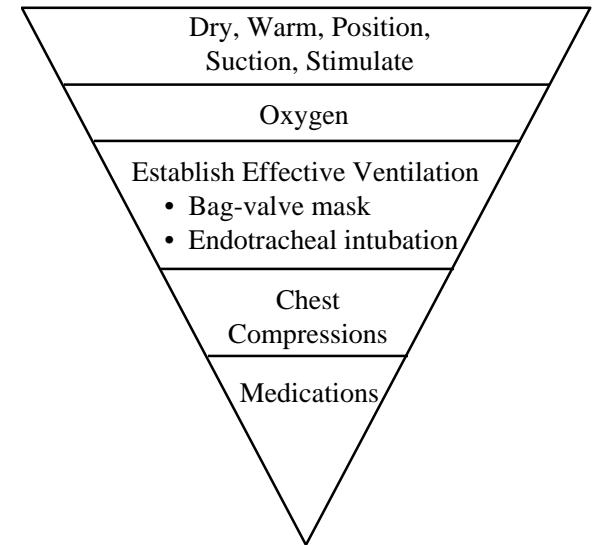
EMT-P

If meconium present and neonate is not breathing, intubate and suction using appropriate suction adapter while withdrawing the ET tube. Repeat until ET is clear of meconium.
 If meconium present and neonate is breathing / crying, suction mouth 1st, nose 2nd with bulb syringe.

APGAR SCORE

Sign	0	1	2
Heart Rate	Absent	<100/min	> 100/min
Respiration	Absent	Slow-irregular	Good cry
Muscle Tone	Limp	Some flexion	Active
Reflex	None	Grimace	Cough sneeze
Color	Blue or pale	Pink with blue extremity	Completely pink

NEWBORN RESUSCITATION



OBSTETRICAL EMERGENCIES
ECLAMPSIA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway and provide high flow oxygen.
2. Immediately transport patient. Consider ALS intercept.
3. Keep the patient calm and dim the lights in the patient compartment.
4. Place patient in the left lateral recumbent position.
5. Frequently reassess patient and the blood pressure, and keep facility informed of patient condition.

Special Considerations

- Consider the possibility of pregnancy in any female of child bearing age with complaints of vaginal bleeding, menstrual cycle irregularity, abdominal cramping and/or pain, low back pain (not associated with trauma), or shoulder pain (not associated with trauma).
- Eclampsia is the most serious manifestation of the hypertensive disorders of pregnancy.
- Eclampsia may be characterized by grand mal seizure activity.

EMT-I

Establish large bore IV at TKO rate.
Consider intubation if condition indicates.

EMT-P

Consider intubation if condition indicates.
Consider medications to lower the blood pressure:
Valium 5-10 mg IV.
Magnesium sulfate 1 - 4 gm of 10% solution
over 20 minutes.

OBSTETRICAL EMERGENCIES

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *Heavy vaginal bleeding following delivery:*

- a. Control bleeding, massage lower abdomen firmly.
- b. Treat for shock.
- c. Consider use of MAST/PASG -- LEGS ONLY!
- d. Transport immediately, advise receiving hospital en route of the problem. Consider ALS intercept.
- e. Consider putting baby to breast, if baby has no signs of respiratory distress.

2. *Miscarriage:*

- a. May result in profuse vaginal bleeding.
- b. Provide emotional support to mother, and treat her immediately for shock. Consider use of MAST/PASG.
- c. Transport immediately, advise receiving hospital en route of the problem. Consider ALS intercept.
- d. Save all expelled tissues (to include fetus), and transport with patient.

HEAVY VAGINAL BLEEDING AND/OR MISCARRIAGE

Special Considerations

- Consider the possibility of pregnancy in any female of child bearing age with complaints of vaginal bleeding, menstrual cycle irregularity, abdominal cramping and/or pain, low back pain (not associated with trauma), or shoulder pain (not associated with trauma).
- The greatest risk to the mother is postpartum hemorrhage, so watch closely for signs of hypovolemic shock and excessive vaginal bleeding.
- In instances where delivery is not proceeding normally and the mother exhibits sudden onset of severe abdominal pain and the clinical signs of shock, treat for shock.

EMT-I

Establish large bore IV at TKO rate. If signs of shock, give fluid challenge.

EMT-P

Cardiac Monitor

OBSTETRICAL EMERGENCIES
NORMAL DELIVERY

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If delivery is imminent with crowning, contact medical direction for decision to commit to delivery on site. If delivery does not occur within 10 minutes, contact medical direction for permission to transport.
2. If delivering on site, apply gloves, mask, gown and eye protection for infection - control precautions.
3. Have mother lie with knees drawn up and spread apart.
4. Elevate buttocks with blankets or pillow.
5. Create sterile field around vaginal opening with sterile towels or paper barriers.
6. When the infant's head appears during crowning, place fingers on bony part of skull (not fontanelle or face) and exert very gentle pressure to prevent explosive delivery. Use caution to avoid fontanelle.
7. If the amniotic sac does not break or has not broken, use a clamp to puncture the sac and push it away from the infant's head and mouth as they appear. Have infant suction ready to prevent amniotic fluid from continuing to gush over infant's face.
8. As the infant's head is being born, determine if the umbilical cord is around the infant's neck; slip over the shoulder or clamp, cut and unwrap.

Special Considerations

- Consider the possibility of pregnancy in any female of child bearing age with complaints of vaginal bleeding, menstrual cycle irregularity, abdominal cramping and/or pain, low back pain (not associated with trauma), or shoulder pain (not associated with trauma).
- The greatest risk to the mother is postpartum hemorrhage so watch closely for signs of hypovolemic shock and excessive vaginal bleeding.
- In instances where delivery is not proceeding normally and the mother exhibits sudden onset of severe abdominal pain and the clinical signs of shock, treat for shock.

EMT-I

Establish a large bore IV at TKO rate. If signs of shock, give fluid challenge.

EMT-P

After a normal birth and while transporting mother and infant; consider the administration of medication for mother:

ADULT PROTOCOL
(Continued)

9. After the infant's head is born, support the head, suction the mouth two or three times and then suction the nostrils. Use caution to avoid contact with the back of the mouth.
10. As the torso and full body are born, support the infant with both hands.
11. As the feet are born, grasp the feet.
12. Wipe blood and mucus from mouth and nose with sterile gauze; suction mouth and nose again.
13. Wrap infant in a warm blanket and place on its side, head slightly lower than trunk.
14. Keep infant level with vagina until the cord is cut.
15. Assign partner to monitor infant and complete initial care of the newborn.
16. Clamp, tie and cut umbilical cord (between the clamps) as pulsations cease, approximately 4 fingers' widths from infant.
17. Observe for delivery of placenta while preparing mother and infant for transport.
18. When delivered, wrap placenta in towel and put in plastic bag; transport placenta to hospital with mother.
19. Gently massage mother's abdomen until it becomes firm.
20. Place sterile pad over vaginal opening; lower mother's legs and help her hold them together.
21. Record time of delivery and APGAR scores, and transport. Do not wait for delivery of placenta before transport. Consider ALS intercept.

PAIN MANAGEMENT

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway.
2. Administer high flow oxygen.
3. Be prepared to assist with respirations.
4. If problem identified, follow appropriate protocol.
5. Assess patient's pain using an appropriate pain scale.
6. Place patient in a position of comfort.
7. Transport patient and advise hospital en route of any information gathered during assessment.

Special Considerations

- All pain is real pain.
- Use a pain rating scale that you are comfortable with and that is appropriate for the patient.

Special Pediatric Considerations

- Use a pain rating scale that you are comfortable with and that is appropriate for the child's age and cognitive ability.
- Remember that children are sensitive to narcotics. Use caution and continually reassess the child's respiratory status.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Consider intubation if condition indicates.
Consider administration of medication:
Morphine 2-10 mg IV or IM
Zofran 4-8mg IV or IM
(For Nausea & Vomiting)

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway.
2. Administer high flow oxygen.
3. Be prepared to assist with respirations.
4. If problem identified, follow appropriate protocol.
5. Assess child's pain using an appropriate pain scale.
6. Place child in a position of comfort.
7. Allow parents to be with child, and attempt to comfort them.
8. Transport patient and advise hospital en route of any information gathered during assessment.

Pediatric EMT-P

Consider administration of medication:
Morphine 0.1 mg/kg IV, IM, or SC
may repeat dose times 1.

POISONING
ABSORPTION

ADULT PROTOCOLS

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *Identify contaminant! If it will be a hazard to you, use protective clothing and extreme caution.*
2. Flood skin with copious amounts of water and remove contaminated clothing. Be alert for hypothermia. (EXCEPTION: If contaminant is dry chemical, brush off powder well BEFORE rinsing.)
3. If eye is involved, irrigate with clean water for at least 20 minutes (and continue en route to facility if possible).
4. Call your medical direction immediately and advise them of the substance. This will allow them time to contact Poison Control if necessary.
5. Treat as per medical direction's recommendations, and transport. Be careful to protect yourself.
6. If possible, bring the label or as much information about the contaminant.

POISON CONTROL NUMBER

1.800.222.1222

Special Pediatric Considerations

- It is important to find out an infant's or child's weight, this will help medical direction determine appropriate treatment.
- Because it is usually extremely difficult or impossible to be sure exactly how much the child has been exposed to; always treat for the worst.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.
Atropine 2-5 mg IV q 15-30 min or until oral secretions are maintained under control.

PEDIATRIC PROTOCOLS

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *Identify contaminant! If it will be a hazard to you, use protective clothing and extreme caution.*
2. Flood skin with copious amounts of water and remove contaminated clothing. Be alert for hypothermia. (EXCEPTION: If contaminant is dry chemical, brush off powder well BEFORE rinsing.)
3. If eye is involved, irrigate with clean water for at least 20 minutes (and continue en route to facility if possible).
4. Call your medical direction immediately and advise them of the substance. This will allow them time to contact Poison Control if necessary.
5. Treat as per medical direction's recommendations, and transport. Be careful to protect yourself.
6. If possible, bring the label or as much information about the contaminant

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact poison control and medical control.

POISONING
INGESTION

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Identify and estimate amount of substance ingested. Take container to receiving facility when feasible.
2. Contact medical direction as soon as possible with the substance ingested so they can contact the Poison Control Center if indicated.
3. **Administer activated charcoal if order given by medical direction. (Usual adult dose is 25-50 grams).** Container must be shaken thoroughly.
4. Patient may need to be persuaded to drink the charcoal.
5. If patient takes long time to drink, may have to shake or stir the charcoal. Record time given.
6. **BE ALERT** for vomiting; protect airway and save vomitus.
7. **DO NOT** induce vomiting unless directed to do so by medical direction.
8. If possible, bring the label or as much information about the contaminant

POISON CONTROL NUMBER
1.800.222.1222

Special Pediatric Considerations

- It is important to find out an infant's or child's weight, which, in combination with the estimated amount of the poisonous substance that was ingested, will help medical direction determine appropriate treatment.
- Because it is usually extremely difficult or impossible to be sure exactly how much the child has taken, always treat for the worst.

EMT-I

Establish a large bore IV, if condition indicates.
Consider intubation if condition indicates.

Pediatric EMT-I

Medications dosage:
Activated Charcoal 0.5 - 1.0 g/kg or
12.5 - 25 grams.

EMT-P

Monitor cardiac rhythm and treat as needed.
Consider placement of NG tube.
Additional medications to consider:
Narcan 0.4-2 mg every 2-3 minutes as needed

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Consider medication dosage:
Narcan 0.01 mg/kg IV, ET, IO, or IM max
dose 2 mg.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Identify and estimate amount of substance ingested. Take container to receiving facility when feasible.
2. Contact medical direction as soon as possible with the substance ingested so they can contact the Poison Control Center if indicated.
3. **Administer activated charcoal if order given by medical direction. (Usual dose is 12.5-25 gram.)** Container must be shaken thoroughly.
4. Child may need to be persuaded to drink the charcoal.
5. If child takes long time to drink, may have to shake or stir the charcoal. Record time given.
6. **BE ALERT** for vomiting; protect airway and save vomitus.
7. **DO NOT** induce vomiting unless directed to do so by medical direction.
8. Explain all procedures to children.
9. Continually assess the child's respiratory status for any changes.
10. If possible, bring the label or as much information about the contaminant

POISONING
INHALATION

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *If hazard of inhaled poison is still present, DO NOT ENTER SCENE without self-contained breathing apparatus!*
2. Remove patient to fresh air; administer high flow oxygen.
3. Identify substance inhaled. Bring all containers, bottles, labels, etc., of poison agents to receiving facility.
4. Estimate duration of exposure to inhaled poison.
5. Contact medical direction immediately and advise of the nature of the problem and substance.
6. Treat as per medical direction's recommendations, and transport.
7. If possible, bring the label or as much information about the contaminant

POISON CONTROL NUMBERS

1.800.222.1222

Special Pediatric Considerations

- It is important to find out an infant's or child's weight, which, in combination with the estimated amount of the poisonous substance that was inhaled, will help medical direction determine appropriate treatment.
- Because it is usually extremely difficult or impossible to be sure exactly how much the child has inhaled, always treat for the worst.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.
Consider intubation, if condition indicates.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. *If hazard of inhaled poison is still present, DO NOT ENTER SCENE without self-contained breathing apparatus!*
2. Remove child to fresh air; administer high flow oxygen.
3. Identify substance inhaled. Bring all containers, bottles, labels, etc., of poison agents to receiving facility.
4. Estimate duration of exposure to inhaled poison.
5. Contact medical direction immediately and advise of the nature of the problem and substance.
6. Treat as per medical direction's recommendations, and transport.
7. Explain all procedures to children.
8. Continually assess respiratory status, and intervene if needed.
9. If possible, bring the label or as much information about the contaminant

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact poison control and medical control.

PSYCHIATRIC EMERGENCIES

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Evidence of immediate danger:
 - a. Protect yourself and others by summoning law enforcement to assure everyone's safety and, if necessary, to enable you to render care.
 - b. Assess and treat life-threatening injuries.
 - c. Detailed physical exam: additional assessment and treatment as situation permits.
2. If no evidence of immediate danger, continue assessing, treating and communicating with patient.
3. Transport patient:
 - a. With patients consent:
 1. The EMT making initial contact with patient should also remain with patient during transport.
 2. DO NOT allow patient in front with driver.
 3. Keep environment as calm/quiet as possible. (DO NOT use sirens, unless indicated by seriousness of injuries or condition of patient.)
 - b. WITHOUT patients consent:
 1. Obtain consent from law enforcement officer or other consent according to local requirements.
 2. If patient is unconscious: you have "implied consent."

Special Considerations

- BE ALERT for your own safety!
- One EMT should assume control of situation and establish contact with patient to reduce confusion and minimize stress.
- Use a calm, quiet voice and talk to the patient. Be honest, direct and non-threatening.
- Move slowly and explain what you are doing. Avoid remarks that could be perceived to be judgmental.
- Keep your own emotions in check. Use physical restraints only if necessary for the protection of yourself or your patient.
- Consider law enforcement escort in ambulance for the safety of yourself and the patient.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Evidence of immediate danger:
 - a. Protect yourself and others by summoning law enforcement to assure everyone's safety and, if necessary, to enable you to render care.
 - b. Assess and treat life-threatening injuries.
 - c. Detailed physical exam: additional assessment and treatment as situation permits.
2. If no evidence of immediate danger, continue assessing, treating and communicating with patient.
3. Transport child:
 - a. With parents consent:
 1. The EMT making initial contact with patient should also remain with patient during transport.
 2. DO NOT allow patient in front with driver.
 3. Keep environment as calm/quiet as possible. (DO NOT use sirens, unless indicated by seriousness of injuries or condition of patient.)
 - b. WITHOUT parents consent:
 1. Obtain consent from law enforcement officer or other consent according to local requirements.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
B. Emergency medical care:

1. If patient has a physician-prescribed, hand-held metered dose inhaler:
 - a. Apply oxygen.
 - b. Assure medication is prescribed for patient.
 - c. Contact medical direction for approval to give inhaler treatment.
 - d. Is patient alert enough to take treatment?
 - e. Check expiration date.
 - f. Shake inhaler vigorously.
 - g. Assist with the administration of the inhaler.
 - h. Reassess patient and repeat second dose if necessary per medical direction.

2. Consider administration of medications if training on Nebulized medications has been completed.

Albuterol Nebulizer with 2.5 mg (3 cc of 0.083%).

3. Unconscious asthmatic patient:
 - a. Open and maintain patent airway.
 - b. Administer high flow oxygen, if respirations are adequate.
 - c. Ventilate with BVM at 15 LPM, if respirations are inadequate.
 - d. Begin CPR if pulseless.
 - e. Transport immediately to medical facility. Consider ALS intercept.

RESPIRATORY DISTRESS

ASTHMA

Special Considerations

- Respiratory emergencies are common calls that require diligent assessment, care and emotional support.
- It is very important to evaluate your patient for adequate breathing throughout the call.
- As patient's condition may change rapidly, be prepared to aggressively manage the airway.

Special Pediatric Considerations

- Assess children for labored breathing such as nasal flaring, retracting and grunting.
- The primary treatment for children includes oxygen, positioning, suctioning and assisted ventilation if needed.

EMT-I

Establish IV access at TKO rate.

Consider intubation if condition indicates.

Consider administration of medications:

Nebulizer with **Albuterol** 2.5 mg (3 cc of 0.083%).

EMT-P

Consider administration of medications:

Albuterol Nebulizer with 2.5 mg (3 cc of 0.083%).

Epinephrine (1:1000) 0.2-0.5 mg SC or 0.1-0.25 mg IV, every 20 min, up to 1 mg.

Solumedrol 125mg IV if patient is refractory to albuterol and epinephrine.

Intubation of patient if condition indicates.

Pediatric EMT-P

Consider administration of medications:

Albuterol 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS) may use half dose for children < 30 kg or 66 lbs.

Epinephrine 0.01 mg/kg (1:1000) IV, IO, or SC, max. dose 0.3 mg.

PEDIATRIC CARE

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. If child has a physician-prescribed, hand-held metered dose inhaler:
 - a. Apply oxygen, consider blow-by.
 - b. Assure medication is prescribed for child.
 - c. Contact medical direction for approval to give inhaler treatment.
 - d. Is child alert enough to take treatment?
 - e. Check expiration date.
 - f. Shake inhaler vigorously.
 - g. Assist with the administration of the inhaler.
 - h. Reassess child and repeat second dose if necessary per medical direction.
 - i. Allow child to sit in a comfortable position.
 - j. Suction airway if needed.

2. Unconscious asthmatic child:
 - a. Open and maintain patent airway.
 - b. Administer high flow oxygen, if respirations are adequate.
 - c. Ventilate with BVM at 15 LPM, if respirations are inadequate.
 - d. Begin CPR if pulseless.
 - e. Transport immediately to medical facility. Consider ALS intercept.

**CROUP
VS
EPIGLOTTITIS**

If the child presents with respiratory distress and inspiratory stridor and has a history of upper respiratory infection, suspect:

CROUP

Low-grade fever < 101 degrees Fahrenheit
Barking cough and sternal retractions
Occurs in ages 3 months to 3 years
Slow onset
Usually occurs during late fall and early winter
Usually caused by viral infection

EPIGLOTTITIS

High-grade fever > 103 degrees Fahrenheit
Muffled voice
Inability to swallow
Pain and swallowing cause drooling
Occurs in ages 3 to 7 years
Rapid onset
No seasonal preference
Usually caused by bacterial infection

**RESPIRATORY DISTRESS
CROUP -- EPIGLOTTITIS**

Special Pediatric Considerations

- DO NOT attempt to visualize the child's oropharynx!
- DO NOT insert anything into the mouth or perform stressful procedures, which could cause sudden, complete airway obstruction in these children!
- Allow child to be held by parent, if this helps to keep the child calm.
- Allow the child to be comforted by parents - this will reduce the risk of obstructing the airway of children with epiglottitis.

Pediatric EMT-P

If unable to ventilate child with a bag-valve-mask, even after repositioning the airway -- Consider a needle cricothyrotomy.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen, consider blow-by.
2. Maintain a calm approach with parent and child. **AVOID AGITATING THE CHILD.**
3. Allow child to remain sitting up, possibly being held by parent.
4. Transport immediately. Consider ALS intercept.

Unconscious child who is not breathing:

1. Open and maintain child's airway with head-tilt/chin-lift maneuver.
2. Ventilate child with bag-value-mask at 15 LPM. Ensure that the chest rises with each ventilation.
3. Transport immediately. Consider ALS intercept.

RESPIRATORY DISTRESS
DYSPNEA

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Administer high flow oxygen.
2. Be prepared to assist respirations via BVM & high flow O₂.
3. Allow patient to assume semi-sitting position if conscious.
4. Loosen restrictive clothing.
5. Consider administration of medications if training on Nebulized medications has been completed.

Albuterol Nebulizer with 2.5 mg (3 cc of 0.083%).

6. Transport patient in position of comfort. Consider ALS intercept.

Special Considerations

- A conscious, dyspneic patient may rapidly deteriorate to respiratory crisis. Be prepared to intervene.
- COPD patients may react adversely to high flow oxygen administration. Monitor closely and be prepared to assist respirations through artificial ventilation and contact medical direction.

Special Pediatric Considerations

- Children frequently develop upper respiratory infections, causing dyspnea or shortness of breath. Please refer to other respiratory distress protocols, which include croup, epiglottitis, asthma, etc.

EMT-I

Establish IV access if condition indicates.

Consider intubation if condition indicates.

Consider administration of medications if training on Nebulized medications has been completed.

Albuterol Nebulizer with 2.5 mg (3 cc of 0.083%).

EMT-P

Monitor cardiac rhythm and treat as needed.

Consider intubation, if condition indicates.

Consider RSI with Medical Control

CPAP

Consider medications for pulmonary edema:

Albuterol 2.5mg in 3ml NS Neb.

Duo Neb 2.5 mg/0.5mg in 3 ml NS Neb.

Lasix 20-80 mg IV or IM

Morphine 2-10 mg IM or IV

Solumedrol 125 mg IV

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Assess for patent airway. Young children frequently put objects into their mouths. (See obstructed airway protocol)
2. Administer high flow oxygen, consider using blow-by oxygen.
3. Be prepared to assist respirations.
4. Allow child to assume semi-sitting position if conscious.
5. Allow parents or caregiver to stay with child.
6. Loosen restrictive clothing.
7. Explain procedures to child.
8. Transport child in position of comfort. Consider ALS intercept.

Pediatric EMT-P

Consider administration of medications:

Albuterol 2.5 mg (3 cc of 0.083%) or (0.5 cc of 0.5% in 3 cc NS) may use half dose for children < 30 kg or 66 lbs.

If unable to establish IV -- Establish IO.

Contact medical control for additional orders.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Determine if patient can speak.
 2. If patient can speak, transport patient.
 3. If patient cannot speak:
 - a. Deliver five abdominal thrusts using the Heimlich maneuver.
 - b. If still cannot speak, repeat five abdominal thrusts.
 4. Transport patient.
 5. If patient becomes unconscious, refer to "Respiratory Distress Obstructed Airway Unconscious Patient."

RESPIRATORY DISTRESS OBSTRUCTED AIRWAY CONSCIOUS PATIENT

Special Considerations

- Chest thrusts are used in infants < 1 year of age, obese patients and pregnant women.
- If patient becomes unconscious at any time, refer to the "Respiratory Distress Obstructed Airway Unconscious Patient."

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
1. Determine if child can speak.
 2. If child can speak, transport patient.
 3. If child cannot speak:
 - a. INFANT < 1 year -- Give five back blows and five chest thrusts.
 - b. CHILD ages 1 to 8 years -- Give five abdominal thrusts
 - c. If still cannot speak, repeat sequence.
 4. Transport patient.
 5. If patient becomes unconscious, refer to "Respiratory Distress Obstructed Airway Unconscious Patient."

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. Open airway and attempt to ventilate.
 2. If airway patent:
 - a. Continue to ventilate.
 - b. Transport.
 3. If airway obstructed:
 - a. Attempt to clear airway.
Reposition airway and attempt to ventilate.
 - b. If still obstructed, give five abdominal thrusts.
 - c. Open the airway. If foreign body seen, remove using finger sweep.
 - d. Continue to repeat steps a through c.
 4. Transport patient. Consider ALS intercept.

RESPIRATORY DISTRESS OBSTRUCTED AIRWAY UNCONSCIOUS PATIENT

Special Considerations

- Chest thrusts are used in infants < 1 year of age, obese patients and pregnant women.

EMT-I

Attempt to establish a direct view of the object and attempt to remove with magill forceps.

EMT-P

Attempt to establish a direct view of the object and attempt to remove with magill forceps.
Consider needle cricothyrotomy, if unable to clear airway.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. Open airway and attempt to ventilate.
 2. If airway patent:
 - a. Continue to ventilate.
 - b. Transport.
 3. If airway obstructed:
 - a. Attempt to clear airway.
Reposition airway and attempt to ventilate.
 - b. If still obstructed:
 - c. INFANT < 1 year -- Give five back blows and five chest thrusts.
 - d. CHILD age 1 - 8 years -- Give five abdominal thrusts using one hand.
 - e. Open the airway. If foreign body seen, remove. Do NOT blind sweep the infant or child's mouth.
 - f. Continue to repeat steps a through e.
 4. Transport child. Consider ALS intercept.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Protect patient from injury by clearing area of all possible hazards.
2. Avoid physical restraint unless **ABSOLUTELY** necessary to protect patient.
3. Protect patient's privacy by removing bystanders.
4. Do **NOT** attempt to put something into patient's mouth.
5. Administer high flow oxygen. Consider a nasopharyngeal airway.
6. With status epilepticus **IMMEDIATELY** transport. Avoid excessive (potentially harmful) restraints.

Post Seizure:

1. Protect the airway and administer high flow oxygen.
2. Treat for any injuries and transport to medical facility, monitoring vital signs and respirations closely.

SEIZURES

Special Considerations

- Status Epilepticus is a true LIFE THREATENING emergency and requires IMMEDIATE transport!
- Approximately 5% of children have seizures as a result of fever. Febrile seizures are most common between the ages of 6 months and 4 years.

EMT-I

Establish IV access, if condition indicates.

Consider checking blood sugar level.

Administer medications:

D₅₀ one amp for glucose < 50, if the caregiver has completed the D₅₀ module.

Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

Consider intubation, if condition indicates.

Consider RSI with Medical Control

Administer medications:

Valium 2-10 mg IV

Thiamine 10-100 mg IV, if history of ETOH

D50 AFTER Thiamine.

Dilantin 10-15 mg/kg IV at a rate not exceeding 50 mg/min.

Versed 2-5mg IV at no more than 5mg/min.

Pediatric EMT-P

Medications are rarely used if child is having a febrile seizure.

If unable to establish IV -- Establish IO.

Administer medications:

Valium 0.1-0.3 mg/kg IV or 0.5 mg/kg rectal - max dose 10 mg

Recommended dose for Dextrose IV - IO:

Children >2 years **D₅₀** at 1 mL/kg

Children < 2 years **D₂₅** at 2 mL/kg.

SEXUAL ASSAULT

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Protect child from injury by clearing area of all possible hazards.
2. Avoid physical restraint unless **ABSOLUTELY** necessary to protect child.
3. Protect child's privacy by removing bystanders.
4. Do **NOT** attempt to put something into child's mouth.
5. Administer high flow oxygen, consider blow-by.
6. With status epilepticus, **IMMEDIATELY** transport. Avoid excessive (potentially harmful) restraints.

Post Seizure:

1. Protect the airway and administer high flow oxygen.
2. Treat for any injuries and transport to medical facility, monitoring vital signs and respirations closely.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Identify yourself to the patient; assure patient that they are safe and are in no further danger.
2. Do **NOT** burden patient with questions about the details of the crime; you are there only to provide emergency medical care.
3. **BE** alert to immediate scene and document what you see! Touch only what you need to touch at the scene.
4. Do not disturb any evidence unless necessary for treatment of patient. (If necessary to disturb evidence, **DOCUMENT WHY** and how it was disturbed).
5. Treat for shock if indicated.
6. Treat other injuries as indicated.
7. Preserve evidence, such as clothing you may have had to remove for treatment; make sure that it is **NEVER** left unattended to preserve "chain of evidence."
8. Place each clothing item into a separate paper bag to prevent cross-contamination.
9. Be very calm and explain to the patient what you are doing.

Special Considerations

- Crew members of the same sex may relate better to the patient in time of such emotional crisis. Accurately record your observations and conversations with the patient.
- Do **NOT** allow the patient to bathe, douche, or change clothes or go to the bathroom.

Special Pediatric Considerations

- Gather information from the parents or care giver away from the child without expression of disbelief or judgment.
- Talk with the child separately about how the injury occurred.
- If you are suspicious about the mechanism of injury, transport the child even though the severity of injury may not warrant such action.
- Report your suspicions to the emergency department staff in accordance with local policies.

EMT-I

Establish IV access, if condition indicates.

EMT-P

Consider medications for sedation:

Valium 2 - 10 mg IV.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B Emergency medical care:

1. Identify yourself to the child. Assure child that they are safe and in no further danger.
2. Do NOT burden child with questions about the details of the crime; you are there only to provide emergency medical care.
3. Be alert to immediate scene and document what you see! Touch only what you need to touch at the scene.
4. Do not disturb any evidence unless necessary for treatment of child. (If necessary to disturb evidence, DOCUMENT WHY and how it was disturbed).
5. Treat for shock if indicated.
6. Treat other injuries as indicated.
7. Preserve evidence, such as clothing you may have had to remove for treatment; and make sure that it is NEVER left unattended to preserve "chain of evidence."
8. Place each clothing item into a separate paper bag to prevent cross-contamination.
9. Be very calm and explain to the child what you are doing.

SHOCK

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway; if any trauma is suspected, you must maintain c-spine immobilization at all times.
2. Administer high flow oxygen.
3. Be prepared to assist with respiration.
4. If problem identified, follow appropriate protocol.
6. Transport patient and advise hospital en route of any information gathered during assessment. Consider ALS intercept.

Special Considerations

- Signs and symptoms of shock:
 - Rapid, weak pulse
 - Pallor of skin
 - Cold and clammy skin
 - Decreased level of consciousness
 - Decreased blood pressure
 - Increased respiratory rate

Special Pediatric Considerations

- Shock in children may be difficult to detect.
- Decreased blood pressure is a late sign.

EMT-I

Establish large bore IV access; give fluid challenge as directed by Medical Control. Consider intubation if condition indicates.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg - repeat as needed.

EMT-P

Monitor cardiac rhythm and treat as needed. Consider intubation, if condition indicates.

Pediatric EMT-P

If unable to establish IV -- Establish IO.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway; if any trauma is suspected, you must maintain c-spine immobilization at all times.
2. Administer high flow oxygen.
3. Be prepared to assist with respiration.
4. If problem identified, follow appropriate protocol.
5. Transport child and advise hospital en route of any information gathered during assessment. Consider ALS intercept.
6. Explain procedures to child.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Calm and reassure the patient, even if not conscious.
2. Monitor and maintain patent airway. May need to suction airway frequently if patient's having problems swallowing.
3. Administer high flow oxygen.
4. Rapid, safe transport in semi-sitting position.
5. If patient is unconscious, transport lying on affected side.
6. Protect affected limbs from injury during transport, and take care to maintain body heat.
7. If enroute to Southeast Medical Center, Oakes, advise hospital and call a stroke code immediately.
8. If time permits, use approved Stroke scale and obtain score (NIH Stroke Scale). **DO NOT LET USE OF STROKE SCALE DELAY OR INTERFERE WITH TREATMENT OR TRANSPORT.**
9. Call for ALS intercept.

STROKE CVA - TIA

Special Considerations

- While stroke patients may not be able to speak, they are usually acutely aware of their surroundings and are anxious. Talk to your patient and keep the patient informed about the treatment being rendered. High speed and loud sirens during transportation may increase the anxiety of the patient and are rarely necessary.
- Stroke patients also experience increased salivation and may have difficulty with swallowing and gag reflexes; therefore, the EMT needs to be acutely aware of airway management problems.
- Do not treat elevated blood pressure.
- Inform receiving facility of possible stroke patient. Code Stroke.

EMT-I

Establish IV access, if condition indicates.
Check Blood sugar level. If below 80ml/dl refer to diabetic protocol
Consider intubation if condition indicates.

EMT-P

Consider cardiac monitoring and treat as needed.
Consider Thrombolytic checklist.
Consider Lidocaine 1mg/kg bolus for increased intracranial pressure

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Strokes are not common in children, but they do occur.
2. Calm and reassure the child, even if not conscious.
3. Monitor and maintain patent airway. May need to suction airway frequently if patient is having problems swallowing.
4. Administer high flow oxygen, consider blow-by.
5. Rapid, safe transport in semi-sitting position.
6. If child is unconscious, transport lying on affected side.
7. Protect affected limbs from injury during transport, and take care to maintain body heat.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact medical control for additional orders.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Assess and maintain airway.
2. Administer high flow oxygen.
3. Be prepared to assist with respiration.
4. Treat any injuries according to protocol.
5. Take note of the surroundings and any unusual situations; but remember, your first priority is to provide care to the patient.
6. Transport patient to hospital.
7. Report your findings and suspicions to the hospital staff - usually the physician taking over care.
8. Record a detailed descriptive report; do not make a diagnosis of abuse. Simply describe your findings on the reporting form.

SUSPECTED CHILD/ELDER ABUSE

Special Considerations

- All medical personnel are required to report any suspected child or elder abuse.
- Do not question or accuse the caretaker if you suspect abuse.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Assess and maintain airway.
2. Administer high flow oxygen.
3. Be prepared to assist with respiration.
4. Treat any injuries according to protocol.
5. Take note of the surroundings and any unusual situations; but remember, your first priority is to provide care to the child.
6. Transport child to hospital.
7. Report your findings and suspicions to the hospital staff - usually the physician taking over care.
8. Record a detailed descriptive report; do not make a diagnosis of abuse. Simply describe your findings on the reporting form.
9. Explain treatment procedures to child.

Pediatric EMT-P

If unable to establish IV -- Establish IO, if child's condition indicates.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
3. If open abdominal wound and bowel is exposed, cover bowel with a wet sterile dressing.
4. If pelvic fracture is evident - consider the use of MAST pants with medical direction's approval.
5. Transport patient immediately. Consider ALS intercept.
6. Notify receiving facility of patient status and problems.
7. Treat for shock, use caution if trendelenburg position is to be initiated.
8. Monitor patient's vital signs closely.

TRAUMA ABDOMINAL AND/OR PELVIC INJURY

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score.
- Establish two large bore IVs.
- IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish IV access; administer fluids as per medical control.

Consider intubation if condition indicates.

Pediatric EMT-I

Consider fluid bolus of 20 cc/kg if signs of shock.

EMT - P

Consider intubation, if condition indicates.

Monitor cardiac rhythm and treat as needed.

Consider pain management:

Morphine 2 -10 mg IM or IV, slow push.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
3. If open abdominal wound and bowel is exposed, cover bowel with a wet sterile dressing.
4. If pelvic fracture is evident, consider the use of pediatric MAST pants with medical direction's approval.
5. Transport child immediately. Consider ALS intercept.
6. Notify receiving facility of child's status and problems.
7. Treat for shock, use caution if trendelenburg position is to be initiated.
8. Monitor child's vital signs closely.

Pediatric EMT-P

If unable to establish IV - Establish IO.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Begin with ABCs before concentrating on amputated part.
2. Administer oxygen by NRB at 15 LPM.
3. Control bleeding.
4. Treat for shock.
5. Partial amputations should be dressed and splinted, avoiding torsion.
6. Follow trauma protocol as indicated.

C. Care of amputated part:

1. Wrap amputated part in sterile dressing, and transport with the patient. Consider ALS intercept.
2. Place wrapped part in plastic bag and seal with tape (do not immerse part in water/saline). Label with name, date and time.
3. Keep part cool. Place in cooler with cold pack or ice, but NOT in direct contact with ice.

TRAUMA AMPUTATED PART

Special Considerations

- Most extremity parts can be reattached; such as arms, ears, fingers, feet, toes, hands, legs, nose, penis and scalp. Optimal results are obtained when implantation occurs within a few hours of the injury.
- Obtain Revised Trauma Score.
- Establish two large bore IVs. IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.
- **Do not delay transport to search for amputated part!**

EMT-I

Establish IV access; administer fluids as per medical control.

Consider intubation if condition indicates.

Pediatric EMT-I

Consider fluid bolus of 20 cc/kg if signs of shock.

EMT - P

Monitor cardiac rhythm, if condition indicates.

Morphine 2-10 mg IM or IV, slow push

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Begin with ABCs before concentrating on amputated part.
2. Administer oxygen by NRB at 15 LPM or blow-by oxygen.
3. Control bleeding.
4. Treat for shock.
5. Partial amputations should be dressed and splinted, avoiding torsion.
6. Follow trauma protocol as indicated.
7. Explain procedures to child.

C. Care of amputated part:

1. Wrap amputated part in sterile dressing and transport with the child. Consider ALS intercept.
2. Place wrapped part in plastic bag and seal with tape (do not immerse part in water/saline). Label with name, date and time.
3. Keep part cool. Place in cooler with cold pack or ice, but NOT in direct contact with ice.

Pediatric EMT-P

If unable to establish IV - establish IO.

Morphine 0.1 mg/kg IV, IO, IM or SC, may repeat times 1.

ADULT PROTOCOLS

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
3. Immediately seal open chest wounds that may be making a sucking sound. Use occlusive dressing taped down on three sides. BE ALERT. If a tension pneumothorax develops, you will have to briefly lift one corner to release pressure and then reseal.
4. Check for tracheal deviation, subcutaneous emphysema, and obvious chest deformity, if injuries resulted from severe compression of chest caused by the steering wheel, etc. Also suspect spine injury in this patient. Contact medical direction for further instructions.
5. Be prepared to aggressively manage the airway.
6. Rib fractures or flail segments of chest can be stabilized with a thick pad of dressings or a small pillow secured in place with tape to the anterior chest.
7. Impaled objects must be left in place, and should be stabilized by building up around object with multi-trauma dressings, etc., taking care that the penetrating object is not allowed to do further damage.

TRAUMA CHEST INJURIES

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score.
- Establish two large bore IVs.
- IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish large bore IV access; consider fluid bolus if signs of shock.
Consider intubation if condition indicates.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg may repeat times 2 if needed.

EMT-P

If tension pneumothorax, perform needle decompression.
Monitor cardiac rhythm and treat as needed.
Consider medication administration:
Morphine 2-10 mg IV or IM

Pediatric EMT-P

If unable to establish IV - Establish IO.

PEDIATRIC PROTOCOLS

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
3. Immediately seal open chest wounds that may be making a sucking sound. Use occlusive dressing taped down on three sides. BE ALERT. If a tension pneumothorax develops, you will have to briefly lift one corner to release pressure and then reseal.
4. Check for tracheal deviation, subcutaneous emphysema, and obvious chest deformity, if injuries resulted from severe compression of chest caused by the steering wheel, etc. Also suspect spine injury in this patient. Contact medical direction for further instructions.
5. Be prepared to aggressively manage the airway.
6. Rib fractures or flail segments of chest can be stabilized with a thick pad of dressings or a small pillow secured in place with tape to the anterior chest.
7. Impaled objects must be left in place, and should be stabilized by building up around object with multi-trauma dressings, etc., taking care that the penetrating object is not allowed to do further damage.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain patent airway with C-spine precautions.
2. Provide artificial ventilation if needed, and give high flow oxygen.
3. Control bleeding by applying pressure directly on the point of bleeding.
4. Elevation of a bleeding extremity may be used secondary to, and in conjunction with, direct pressure.
5. If bleeding persists, consider appropriate arterial pressure points in upper and lower extremities.
6. Treat for shock if present.
7. Transport patient, consider ALS intercept.
8. If extreme blood loss is still occurring, consider tourniquet as last choice.

TRAUMA EXTERNAL BLEEDING

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score.
- Establish two large bore IVs; IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish large bore IV access. Give fluid challenge.

Consider intubation if condition indicates.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg may repeat times 2.

EMT-P

Monitor cardiac rhythm and treat as needed.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain patent airway with C-spine precautions.
2. Provide artificial ventilation if needed, and give high flow oxygen.
3. Control bleeding by applying pressure directly on the point of bleeding.
4. Elevation of a bleeding extremity may be used secondary to, and in conjunction with, direct pressure.
5. If bleeding persists, consider appropriate arterial pressure points in upper and lower extremities.
6. Treat for shock if present.
7. Remember: The blood volume for children is significantly less than adults. Children become hypovolemic quickly with small amounts of blood loss.
8. Low blood pressure is a late sign of shock in the child. You must intervene before the BP drops.
9. Transport child, consider ALS intercept.
10. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV - Establish IO.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Place the head in a neutral in-line position, unless the patient complains of pain or the head is not easily moved into position.
2. Apply cervical collar. Do not use sandbags to restrain the head.
3. Monitor airway closely, taking care to suction secretions. Be prepared for vomiting.
4. Administer high flow oxygen.
5. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with the head immobilized.
The KED may be helpful with seated patients
6. Control bleeding, and dress and bandage open wounds.
7. Frequently repeat vital signs, Glasgow Coma Scale, pupillary response, and neurovascular status of the extremities.
8. Transport immediately, consider ALS intercept.

TRAUMA HEAD - NECK - SPINE INJURIES

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score.
- Establish two large bore IVs.
- IVs should be started en route to hospital, except when there is an unavoidable delay - such as prolonged extrication.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.
- If facial injury and/or signs of a basilar skull fracture, DO NOT insert a nasogastric tube or nasally intubate.

EMT-I

Establish large bore IV access; give fluid challenge.

Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Place the head in a neutral in-line position, unless the patient complains of pain or the head is not easily moved into position.
2. Apply cervical collar. Do not use sandbags to restrain the head.
3. Monitor airway closely, taking care to suction secretions. Be prepared for vomiting.
4. Administer high flow oxygen.
5. Maintain constant manual in-line immobilization until the patient is properly secured to a backboard with the head immobilized. A KED may be helpful in full spine immobilization.
6. Control bleeding, and dress and bandage open wounds.
7. Frequently repeat vital signs, Glasgow Coma Scale, pupillary response, and neurovascular status of the extremities.
8. Transport immediately, consider ALS intercept.
9. Explain procedures to child.

Pediatric EMT-P

If unable to establish IV - Establish IO.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. Maintain airway with C-spine precautions.
 2. Provide artificial ventilation if needed, and administer high flow oxygen.
 3. If bleeding is suspected in an extremity, control bleeding by direct pressure and application of a splint.
 4. Immediate transport is critical for patient with signs and symptoms of shock or hypoperfusion. Consider ALS intercept.
 5. Treat for shock.

TRAUMA INTERNAL BLEEDING

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score.
- Establish two large bore IVs; IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish large bore IV access; give fluid challenge.

Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

- A. Follow initial protocols for all patients:
- B. Emergency medical care:
 1. Maintain airway with C-spine precautions.
 2. Provide artificial ventilation if needed, and administer high flow oxygen.
 3. If bleeding is suspected in an extremity, control bleeding by direct pressure and application of a splint.
 4. Immediate transport is critical for patient with signs and symptoms of shock or hypoperfusion. Consider ALS intercept.
 5. Explain procedures to child.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg repeat as needed.

Pediatric EMT-P

If unable to establish IV - Establish IO.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
4. Control any external bleeding.
5. Elevate the lower extremities approximately 8 to 12 inches. If the patient has serious injuries to the pelvis, lower extremities, head, chest, abdomen, neck or spine, keep the patient supine.
6. Prevent loss of body heat by covering the patient with a blanket when appropriate.
7. Immediate transport is critical for patient with signs and symptoms of shock or hypoperfusion. Consider ALS intercept.

TRAUMA SHOCK

Special Considerations

- Initial assessment and management of any traumatic incident, minor or major, should be accomplished in a similar manner during each situation following the general orders for all patients.
- Obtain Revised Trauma Score on all trauma patients.
- Establish two large bore IVs; IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish large bore IV access. Give fluid challenge.

Consider intubation if condition indicates.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg - repeat as needed.

EMT-P

Monitor cardiac rhythm and treat as needed.

Pediatric EMT-P

If unable to establish IV - Establish IO.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Maintain airway with C-spine precautions.
2. Provide artificial ventilation if needed, and administer high flow oxygen.
4. Control any external bleeding.
5. Elevate the lower extremities approximately 8 to 12 inches. If the patient has serious injuries to the pelvis, lower extremities, head, chest, abdomen, neck or spine, keep the patient supine.
6. Prevent loss of body heat by covering the patient with a blanket when appropriate.
7. Immediate transport is critical for child with signs and symptoms of shock or hypoperfusion. Consider ALS intercept.
8. Explain procedures to child.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Begin with ABCs before concentrating on the deformed part.
2. Assess pulse, motor and sensation distal to the injury prior to and following splint application, and record findings.
3. Immobilize the joint above and below the injury.
4. Remove or cut away clothing and jewelry.
5. Cover open wounds with a sterile dressing.
6. If there is a severe deformity, or the distal extremity is cyanotic or lacks pulses, align with gentle traction to attempt to re-establish perfusion before splinting, and transport immediately. Realignment should only be attempted once.
7. Do not intentionally replace the protruding bones.
8. Pad each splint to prevent pressure and discomfort to the patient.
9. When feasible, splint the patient's extremities before moving.
10. When in doubt, splint the injury.
11. Consider MAST/PASG for splinting of pelvic or bilateral femur fractures.

TRAUMA SPLINTING OF FRACTURES/DISLOCATIONS

Special Considerations

- Studies of mechanism of injury indicate that infants and children with fractured femurs often have injury to internal organs.
- There may be significant blood loss with pelvic and femur fractures.
- Obtain Revised Trauma Score.
- Establish two large bore IVs.
- IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish a large bore IV, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Consider intubation, if condition indicates.
Consider administration of medication:

Morphine 2-10 mg IV or IM

Zofran 4-8mg IV or IM

(For Nausea & Vomiting)

Pediatric EMT-P

Consider administration of medication:

Morphine 0.1 mg/kg IV, IM, or SC

may repeat dose times 1.

Zofran 0.1/ kg if less than 40kg.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Begin with ABCs before concentrating on the deformed part.
2. Assess pulse, motor and sensation distal to the injury prior to and following splint application, and record findings.
3. Immobilize the joint above and below the injury.
4. Remove or cut away clothing and jewelry.
5. Cover open wounds with a sterile dressing.
6. If there is a severe deformity or the distal extremity is cyanotic or lacks pulses, align with gentle traction to attempt to re-establish perfusion before splinting, and transport immediately. Realignment should only be attempted once.
7. Do not intentionally replace the protruding bones.
8. Pad each splint to prevent pressure and discomfort to the child.
9. When feasible, splint the child's extremity before moving.
10. When in doubt, splint the injury.
11. Consider MAST/PASG for splinting. Must have pediatric sized MAST-PASG to use on children.
12. Explain all procedures to children in their terms.
13. Never tell a child something will not hurt when you know it will.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway.
2. Administer high flow oxygen.
3. If problem identified, follow appropriate protocol.
4. Be prepared to assist with respirations.
5. Transport patient and advise hospital en route of any information gathered during assessment. Consider ALS intercept.

UNCONSCIOUS PATIENT MEDICAL

Special Considerations

- If unconsciousness is due to trauma or unknown etiology, assume patient has a spinal cord injury.
- Be prepared to handle combative, disoriented patient, or seizures.

EMT-I

Establish IV access, if condition indicates.

Check blood sugar level. If low give:

D₅₀ one amp for glucose < 50, if completed the *D₅₀* module.

Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

Consider intubation if condition indicates.

Consider medications:

Narcan 0.4-2 mg IV every 2-3 minutes as needed. If suspect some form of drug induced unconsciousness.

Thiamine 100mg IV, IM

D50 **AFTER** thiamine.

Romazicon 0.2-0.5 mg IV

(Max dose 3mg in one hour)

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway.
2. Administer high flow oxygen.
3. If problem identified, follow appropriate protocol.
4. Be prepared to assist with respirations.
5. Transport patient and advise hospital en route of any information gathered during assessment. Consider ALS intercept.

Pediatric EMT-P

If unable to establish IV - establish IO.

Medication dosage for Dextrose IV or IO:

D₂₅ (Dextrose 25%) 0.5 - 1.0 g/kg; volume dose is usually 2.0 - 4.0 mL/kg.

Narcan 0.01 mg/kg IV, IO, or IM - max dose 2 mg. Give if a drug-induced unconsciousness is suspected.

ADULT PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway, maintaining c-spine immobilization at all times.
2. Administer high flow oxygen.
3. If problem identified, follow appropriate trauma protocol.
4. Be prepared to assist with respirations.
5. Transport patient and advise hospital en route of any information gathered during assessment. Consider ALS intercept.

UNCONSCIOUS PATIENT TRAUMA

Special Considerations

- If unconsciousness is due to trauma or unknown etiology, assume patient has a spinal cord injury.
- Be prepared to handle combative, disoriented patient, or seizures.
- Obtain Revised Trauma Score.
- Establish two large bore IVs.
- IVs should be started en route to hospital, except when there is an unavoidable delay.
- Follow the Decision Scheme for identifying Major Trauma Patients. Call Trauma Code, if appropriate.

EMT-I

Establish IV access, if condition indicates.
Consider intubation if condition indicates.

EMT-P

Monitor cardiac rhythm and treat as needed.

PEDIATRIC PROTOCOL

FIRST RESPONDER AND EMT-B

A. Follow initial protocols for all patients:

B. Emergency medical care:

1. Open and maintain airway, maintaining c-spine immobilization at all times.
2. Administer high flow oxygen.
3. If problem identified, follow appropriate trauma protocol.
4. Be prepared to assist with respirations.
5. Transport patient and advise hospital en route of any information gathered during assessment. Consider ALS intercept.

Pediatric EMT-I

Fluid bolus for children is as follows:
20 cc/kg - repeat times two if needed.

Pediatric EMT-P

If unable to establish IV -- Establish IO.
Contact medical control for additional orders.

RAPID SEQUENCE INTUBATION

Contraindications for RSI

- Spontaneous breathing with adequate ventilation
- Major facial or laryngeal trauma
- Upper airway obstruction
- Distorted facial or airway anatomy
- Soft tissue/penetrating injury to neck

SPECIAL INSTRUCTIONS

Medical control must be contacted prior to medication administration and intubation.

Purpose:

Rapid Sequence Intubation shall be used in patients requiring immediate Endotracheal Intubation.

Those unable to maintain an airway.

Indications

1. Respiratory failure (Asthma, Croup, COPD, Chest Deformity)
2. Loss of gag and protective reflexes
3. Obtundation and/or Glasgow Coma Scale less than 8 in head injured patients requiring hyperventilation.
4. Spinal Cord Injuries
5. Burns

EMT-P

1. History and Physical exam.
(Including Allergies)
2. Administer O2, establish IV TKO, Cardiac Monitor.
3. Prepare drugs and necessary equipment
(Intubation equipment including pulse oximetry)
4. Pre-Oxygenate with 100% O2
5. Consider premedication with adjunctive agents; consider Atropine in pediatrics, Lidocaine for head injured patients,
Lidocaine 1.5 – 2 mg/kg
Atropine .02 mg/kg (Ages 1-5)
(min. 0.1mg, max 1mg)
6. Assist ventilation's with constant use of cricoid pressure.
7. Sedate patient
Versed 0.1 mg/kg IV
8. Administer Neuromuscular blockade to prevent fasciculation.
Vecuronium 0.01mg/kg IV
9. Paralyze with **Succinylcholine** 1.5mg/kg IV
Onset should be 45-60 sec.
10. Intubate
11. Verify tube placement using ET CO2 Detector
12. Assure adequate sedation
Versed .1mg/kg IV

13. Prolonged paralysis administer

Vecuronium 0.1mg/kg IV

14. Ventilate and maintain inline stabilization for suspected cervical spine injured patients.

Failed Intubation following paralysis

Intubation should be accomplished in 45-120 seconds after paralytic is administered. If unsuccessful then:

1. Ventilate patient with BVM, 100% O2 and cricoid pressure to maintain O2 saturation above 92%
2. Contact Medical control
3. Consider Combi-tube.