Quincy Area EMS System

STUDY GUIDE

ECRNs and Paramedics

2019 Version

Each agency should have a copy of
QAEMS Policy & Procedure Manuel.

A copy is also available on-line at:
blessinghealthsystem.org
Click "**Community Connection**"
Click "**Emergency Medical Services**" then
Click **"QAEMS Policy and Procedure Manual**" under News and Update heading

07/08, 03/12, 05/12, 01/16, 06/17

1. Which statement regarding patient refusal is correct?

REFUSALS

Who May Refuse Care: A patient may refuse medical care and/or transportation if he/she does not appear to be a threat to himself or others and meets the following criteria:

A. A competent, conscious adult over the age of 18
B. A minor (under age 18) who meets one or more of the following criteria:
    1) Has been granted legal emancipation and provides documentation
    2) Is pregnant
    3) Is a parent
C. A Durable Power of Attorney for Health Care may request to limit or refuse medical care.
D. The legal guardian or parent of a minor

(O-6.1)

2. Continuous Positive Airway Pressure (CPAP) has been shown to rapidly improve vital signs, gas exchange and reduce work of breathing. Which patient would be a candidate to receive Continuous Positive Airway Pressure **(CPAP)** management?

Indications to CPAP Therapy

Any patient who is in respiratory distress with signs and symptoms consistent with asthma, COPD, pulmonary edema, CHF, or pneumonia **and** who is:

A. Awake and able to follow commands
B. Is over 12 years old and is able to fit the CPAP mask
C. Has the ability to maintain an open airway
D. **AND** exhibits two or more of the following:
    1. A respiratory rate greater than 25 breaths per minute
    2. SPO2 of less than 94% at any time
    3. Use of accessory muscles during respirations

Contraindications to CPAP Therapy

A. Patient is in respiratory arrest/apneic
B. Patient is suspected of having a pneumothorax or has suffered trauma to the chest
C. Patient has a tracheostomy.
D. Patient is actively vomiting or has upper GI bleeding.
E. Patient has decreased cardiac output, obtundation and questionable ability to protect airway (i.e. stroke) penetrating chest trauma, gastric distention, severe facial injury, uncontrolled vomiting and hypotension secondary to hypovolemia.

(AP 26.1)

3. Which person would be a candidate to serve as a member of a Local System Review Board?

Board Make-up

1. One Emergency Department physician with knowledge of EMS
2. Two EMT's
3. Two persons of the same professional category as the suspended individual, individual provider or participant requesting the hearing.

(PS-1)

4. An adult patient is being transported to you via ground EMS with severe nausea and vomiting. You know that the correct **drug/dose** for the active vomiting patient in the pre-hospital setting is:

NAUSEA & VOMITING

A. If the patient has a complaint of nausea or vomiting:

1. Administer:
    a) Adults: Zofran 4 mg slow IVP. Repeat dose X (1) if necessary in 15 minutes
    b) Pediatrics: Must contact Medical Control prior to administration
2. Notify emergency department that Zofran was administered so they can be prepared to insert NG tube if necessary. (MP-18)

5. The minimum emergency department staffing criteria for a Resource and/or an Associate Hospital is:

Minimum Staffing Criteria For Program Participation

Resource Hospital	At least 1 ECRN nurse and 1 EMS physician in-house 24 hours.
Associate Hospital	At least 1 ECRN nurse and 1 EMS physician in-house 24 hours

(OS-1.3)

6. Application of a tourniquet is an effective means to control severe bleeding when other methods have failed. Of the following patients with uncontrolled hemorrhage, which treatment does follows the procedure for tourniquet application and/or monitoring of patients with a tourniquet

Tourniquet - Procedure

A. The CAT tourniquet (or equivalent) is the preferred method if tourniquet is to be used.
B. Various sizes of blood pressure *cuffs can be used if additional tourniquets are needed.*
C. Apply device approximately 3 inches proximal to wound. If the wound is on a joint, or just distal to the joint, apply the tourniquet above the joint
D. Tighten until bleeding stops (venous oozing is acceptable) and/or distal pulse is absent.
E. If one tourniquet is not sufficient a second should be applied just proximal to the first.
F. Do not cover the tourniquet with a dressing.
G. Once a tourniquet has been applied, do not remove or loosen it unless ordered by medical direction.
H. Note time of tourniquet application and communicate this to the receiving care providers.

(AP 27.1)

7. Prior to expiration of a current license, a provider may request to be placed on inactive status if all relicensure requirements have been met at that time. During inactive status:

Request for Inactive Status

During inactive status, the EMT shall not function as an EMT, at any level.

(P-17)

8. What medication may be given in the pre-hospital setting to control severe pain prior to any contact with Medical Control?

MORPHINE:

a) Adult: Initial dose of 2 mg IVP may be given prior to contacting Medical Control. May repeat x 1. Contact Medical Control for additional doses.
b) Pediatric: Must call Medical Control prior to administration 0.1 mg/kg IVP

Make sure to document vital signs including a pain assessment and O2 saturation. Reassess and document vital signs every 10 minutes. Record before and after medication. Notify receiving facility/physician of meds given.

(MP-29)

9. While transferring a patient with a Nitroglycerin drip, the patient becomes hypotensive. The patient has a history of ACS without pulmonary edema. You should first:

Nitroglycerin and hypotension

1. Lower the head of the stretcher and administer a 200 ml fluid bolus if not contraindicated (pulmonary edema).
2. If the blood pressure does not return to the minimum systolic parameter listed in the transfer orders (or 90 systolic if no minimum indicated), stop the infusion and contact Medical Control or the receiving facility. (A-4.2)

10. You have been called to transport a fifty-six year old male patient who has experienced an acute MI. The patient becomes unresponsive, no carotid pulse detected and you note the following rhythm on the cardiac monitor. You identify this rhythm as:

ACLS RHYTHM IDENTIFICATION (ACLS)

11. You are transporting a 55 y/o male patient who was diagnosed with anterior MI. Your patient has a rhythm change which you identify as ventricular tachycardia. The patient is now restless and confused. His skin color is ashen and feels cool and clammy. BP is 68mmHg systolic. Your next action should be:

TREATMENT OF SYMPTOMATIC V-TACH WITH PULSE

- If ventricular rate > 150 with serious signs and symptoms related to the tachycardia, prepare for immediate cardioversion.
- S&S may include chest pain, dyspnea, decreased level of consciousness, low blood pressure, pulmonary congestion, AMI (AP-17.1)

12. You are transporting a 60 y/o female patient who was diagnosed with AMI. Minutes after transport began, your patient has a rhythm change which you identify as wide complex ventricular tachycardia. She is alert and oriented, and her color is pale. She denies dyspnea or chest pain. BP 100/58 P 140. Which would be an appropriate initial treatment of this patient?

STABLE WIDE COMPLEX TACHYCARDIA

Assure airway patency and administer O_2 at high flow, cardiac monitoring, IV
Administer Lidocaine 1-1.5 mg/kg IV push

(MP-7)

13. You are transporting a cardiac patient. Suddenly, the monitor shows asystole and no pulse is detected. Your initial steps in caring for this patient would include

ACLS SKILLS

(MP-5)

14. The correct administration and initial dosage for the drug Adenosine is:

Administration of Adenosine

Administer Adenosine 6 mg per the following method: A syringe of Adenosine and a second syringe of 10-20 ml of normal saline should be prepared. The Adenosine is given rapid IV push followed immediately by the flush of normal saline. If the tachycardia persists after 1-2 minutes and the rhythm is still thought to be PSVT, then consider Adenosine 12 mg, rapid IV push by the method outlined above. The 12 mg dose may be repeated once more if PSVT persists in 1-2 minutes. (MP-7)

15. What is the initial energy dose for defibrillation of the pediatric patient?

Treatment of V-Tach/V-Fib

Defibrillate 2J/kg
May repeat immediately X2 @ 4J/kg as indicated

(PED 2.2)

16. You respond to a call regarding a patient with history of diabetes and decreased level of consciousness. Upon arrival, you find a 55 y/o male, conscious, responsive with skin moist and cool to the touch. You quickly obtain a blood sugar reading while your partner obtains IV access. Reading is 36. After administration of Dextrose 50%, the patient is alert, oriented and states feeling "much better". The patient and spouse thank you for your treatment, but do not feel the need for transport as you "fixed" him. In this case, you realize you:

- **Low Risk Refusals *(NO need to call Medical Control)***
  - *a. Low speed MVC without significant injury.*
  - *b. Isolated injuries not related to a high risk mechanism.*
  - *c. Third party calls where no injury or illness is present.*
  - *d. Non-injury call for assistance.*
  - *e. A patient with no other concerning complaints whose mental status is not normal, but is confirmed to be usual for the patient by family or friends who will remain on scene with the patient after EMS departure.*
  - *f. A patient with hypoglycemia due to insulin use which was corrected by administration of oral glucose or IV dextrose 50% and whose family or friend who will remain on scene after EMS departure.*
  - *g. A patient with a respiratory complaint that requires only one albuterol nebulizer treatment to correct.*
  - *h. A patient with heat-related muscle cramps that requires only IV fluid administration to correct*

(O-6.1, 6.2)

17. In the case of a prolapsed umbilical cord, you should:

Emergency Delivery with Cord Prolapse

A. A prolapsed cord occurs when the umbilical cord is compressed between the fetus and the pelvis.
B. If the umbilical cord is noted to be protruding from the vagina:
   1. Administer oxygen at 15 LPM per non-rebreather mask to the mother
   2. Place the mother in knee-chest or Trendelenberg position
   3. Insert two fingers of a gloved hand into the vagina to raise the presenting part off the cord. This position will need to be maintained until instructed otherwise at the hospital. At the same time check the cord for pulsations.
   4. Cover the exposed cord with a moist sterile dressing. Do not compress, palpate or handle the cord more than necessary

(MP-10.2)

18. After normal delivery of an infant and placenta, you note that the mother is bleeding heavily from the vagina. Your initial steps in caring for this patient would include:

Severe Post-Partum Hemorrhage

- Administer oxygen at 12-15 LPM per non-rebreather mask.
- Initiate an IV of Normal Saline and administer a fluid bolus to maintain systolic blood pressure at a minimum of 100 systolic. (ALS).
- Oxytocin 10 units – add to 500 or 1000 ml of Normal Saline and infuse slowly at the rate indicated by Medical Control. You must be certain that the placenta has delivered and there are no other fetuses present.
- Consider the use of PASG (MAST) leg sections only*

*(Note: BLS to contact Medical Control before inflating.)

(MP-10.2)

19. Which of the following is a duty of the Emergency Communications Registered Nurse (ECRN)?

ECRN DUTIES AND RESPONSIBILITIES

A. Give voice orders to system participants via radio in accordance with System approved protocols.
B. Document calls for which direction was given completely and accurately recording information as required on the emergency department Radio Log.
C. Sign the patient report form of the transporting unit indicating transfer of patient care to the receiving hospital.
D. Monitor, supervise, and assist hospital personnel fulfilling educational requirements in the clinical setting.
E. Perform other duties as may be assigned by the EMS Medical Director.
F. Monitor conformance to system policy and procedure

(P-13)

20. Valium is a benzodiazepine that is commonly used to treat seizures and provide sedation prior to emergent cardioversion. However, the patient must be monitored for potentially serious side effects. Which is considered a potential side effect after administering Valium (diazepam) 5-10 mg IV?

VALIUM

SIDE EFFECTS

a. CNS depression; drowsiness
b. Respiratory depression
c. Hypotension
d. Phlebitis; venous thrombosis

ROUTE

a. IV (administer no faster than 1 mg/minute)
b. IM (Onset of action 15-30 minutes)
c. Rectal

DOSE

a. Seizures: 5-10 mg slow IV push at 1 mg/minute. Maximum dose of 10 mg.
b. Sedation prior to electrical therapy: 5-10 mg slow IV pushat 1 mg/minute. Max dose of 10 mg.
c. Acute anxiety: 2-5 mg IM or slow IV push. (MP-20)

21. The final designated medical authority in the EMS System is the:

EMS MEDICAL DIRECTOR

I. The EMS Medical Director is the designated final medical authority.
II. The first arriving EMS team on the scene is responsible under the direct authority of the EMS Medical Director and will assume responsibility for carrying out appropriate patient care at the scene.
III. Responsibility and authority for patient care management will be transferred to the team providing the highest level of care at the scene upon their arrival.

(MP-1)

22. Treatment goals for the patient with pulmonary edema includes preventing hypoxemia and subsequent respiratory failure. Medications to be considered in the treatment regimen include

First Line Action

Oxygenation (Intubate if needed)
Nitroglycerin SL
Morphine 2 mg IVP*
(*Contact Medical Control for additional doses) (MP-8)

23. A reason for withholding baby aspirin to a patient with chest pain would include:

CONTRAINDICATION TO ASA

Active ulcer disease (relative contraindication)
Asthma (relative contraindication)
Known hypersensitivity to the drug, bleeding disorders (MP-4)

24. The START program is used to triage patients involved in a MASS Casualty Incident. It consists of assessing for three basic components which include

START TRIAGE - ADULT

STEP 1: Respiration's (breathing)
STEP 2: Perfusion check (radial pulse) or use capillary refill test
STEP 3: Mental Status (O-12.b)

25. The Resource Hospital can be asked to intervene or override orders from an Associate Hospital when:

Intervention Policy

A. No radio response by the receiving hospital after 3 attempts by the prehospital unit.
B. Deviation from Quincy System defined treatment protocols, disposition, or communication protocols.
C. Undue delay in initiation of treatment or delayed transport of critically ill or injured patients (greater than 25 minutes) without reasonable cause.
D. When the Associate Hospital requests the intervention.
E. When an ALS crew requests the intervention.

(O-5)

26. Stroke patients require immediate transport and treatment to produce the best outcomes. Assessment and treatment of the stroke patient includes:

STROKE

I. A stroke should be considered an emergent situation. Depending upon the type of stroke, patients may be candidates for thrombolytic (clot buster) therapy in the emergency department. Time is critical and on scene time should be kept to a minimum for all patients with signs and symptoms of stroke.
II. Assessment: All possible stroke patients should have the following assessed…
A. Level of consciousness

1. AVPU
2. Glasgow Coma Scale

B. Cincinnati stroke scale – 3 components.
1. Facial droop (Ask the patient to smile)
    a. Normal: Both sides of face move equally
    b. Abnormal: One side of face does not move
2. Speech (Ask the patient to repeat a simple sentence.)
    a. Normal: Patient uses correct words with no slurring
    b. Abnormal: Slurred or inappropriate words or unable to speak
3. Arm drift (Ask patient to close eyes and hold arms straight out in front of them.)
    a. Normal: Both arms move equally or not at all
    b. Abnormal: One arm drifts compared to the other

C. Finger stick glucose

D. Determine time of *"last known well"* (This will be a critical determinant in the decision to give thrombolytic agents to the patient in the Emergency Depart.)

E. Obtain SAMPLE history (It is especially important to determine what medications the patient is taking.) (MP-23)

27. The disaster tag system used in the QAEMS System in the event of a major EMS Incident is called the:

QAEMS SYSTEM USES **SMART TAG**

(O-12-F)

28. Which situation does not require an EMS physician to be present at Medical Control radio/phone?

PHYSICIAN TO THE OPERATIONAL CONTROL POINT (RADIO)

A. A decision regarding where a patient is to be transported needs to be made by the resource hospital. (see policy O-4)
B. Intervention by the resource hospital is indicated. (see policy O-5)
C. A major EMS incident is declared.
D. When a Quincy ALS unit is requesting permission to respond to a second and simultaneous dual response.
E. When an ALS crew is requesting an infield service level downgrade.

(O-18)

29. The Cincinnati Stroke Scale includes the following parameters:

CINCINNATI STROKE SCALE – 3 COMPONENTS.

1. Facial droop (Ask the patient to smile)
2. Speech (Ask the patient to repeat a simple sentence.)
3. Arm drift (Ask patient to close eyes and hold arms straight out in front of them.)

(MP-23)

30. The objective of physical restraint for a patient demonstrating a behavioral emergency is to:

NEED FOR RESTRAINT

Physical restraint may be necessary when EMS personnel have a reasonable belief that the patient may harm himself or others.

(O-8)

31. Approved ten-codes used for medical communications in the QAEMS system includes:

Five 10 signals that shall be used for medical communications to the hospital:

10-33 Run Emergent (HOT)
10-40 Run Non-Emergent (COLD)
10-56 Intoxicated
10-79 Dead body
10-96 Psychiatric patient (C-4)

32. Examples of possible System-wide crisis that might necessitate activation of the System Wide Crisis plan includes all of the following:

Examples of possible System-wide crises:

1. Heat emergency
2. Communicable disease
3. Influenza epidemic
4. Terrorist act involving a nuclear, biological or chemical agent (O-32.1)

33. What is the purpose of a local system review board?

Purpose:

The Resource Hospital shall designate a Local System Review Board for the purpose of reviewing a decision of the EMS Medical Director to suspend an individual, individual provider or participant from participation in the Quincy Area EMS System.

(PS-1.1)

34. A participant in the EMS System may be suspended by the EMS Medical Director for:

Any such suspension may be based on one or more of the following:

A. Failure to meet the educational and training requirements of the State or by the EMS Medical Director.
B. Violation of the EMS act or any rule promulgated under it.
C. Failure to maintain proficiency in the provision of basic or advanced life support services.
D. Failure to comply with System Policies and Procedures.
E. Intoxication or personal misuse of any drugs or the use of intoxicating liquors, narcotics, controlled substances, or other drugs or stimulants in such manner as to adversely affect the delivery, performance, or activities in the care of patients.
F. Falsification of any reports or orders, or making misrepresentations involving pt. care.
G. Abandoning or neglecting a patient requiring emergency care.
H. Unauthorized use or removal of narcotics, drugs, supplies or equipment from any ambulance, health care facility, institution, or other work place location.
I. Performing or attempting emergency care, techniques or procedures without proper permission, certification, training, or suspension.
J. Discriminating in rendering care due to race, sex, creed, religion, national origin or ability to pay.
K. Medical misconduct or incompetence.
L. Physical impairment to the extent that emergency care and life support functions for which the provider is certified, cannot be physically performed.
M. Mental impairment to the extent that the appropriate judgment, skill and safety required for performing the emergency care and life support functions for which the provider is certified cannot be exercised.
N. The EMS Medical Director believes that the continuation in practice by the provider would constitute an imminent danger to the public.
O. Committing a felony act while on or off duty.

35. Which has successfully completed a course that meets or exceeds the DOT National Curriculum, accepts emergency calls from the public and provides pre-arrival medical instructions to the public?

EMERGENCY MEDICAL DISPATCHER

Definition: A person who has successfully completed a dispatching course that meets or exceeds the National Curriculum of the United States Department of Transportation.

EMD Duties:
A. Accepts calls from the public for emergency medical services
B. Dispatches designated emergency medical services personnel and vehicles
C. Provides pre-arrival medical instructions to the caller in accordance with protocols (P-32)

36. Medications indicated for the prehospital treatment of asthma include:

Asthma
Administer O_2 12-15 LPM non-rebreather mask
Administer Methylprednisone 125mg IV and/or
Administer 2.5 mg of albuterol via nebulizer

(MP-9)

37. For the patient with signs and symptoms of acute pulmonary edema and a heart rate of 90, prehospital treatment may include:

First Line Action
Oxygenation (Intubate if needed)
Nitroglycerin SL 0.4mg
Morphine 2-4 mg IVP*
(*Contact Medical Control for order)

(MP-8)

38. Your patient is experiencing chest pain, dyspnea, confusion and hypotension. You attach the monitor and identify sinus bradycardia with a rate of 40. Proper treatment would include:

INTERVENTION SEQUENCE
Atropine 0.5 mg IVP every 3-5 minutes up to max of 0.03-0.04 mg/Kg
Transcutaneous pacing
If low blood pressure after rate increases:
* Dopamine IV at 5-20 mcg/kg/minute
OR
* Epinephrine IV drip at 2-10 mcg/minute (MP-6)

39. Appropriate treatment for an unstable patient experiencing supraventricular tachycardia would include:

Supraventricular Tachycardia
-Vagal Maneuvers (Have patient cough or valsalva)

-Adenosine 6 mg rapid IV push over 1-3 seconds.
-If no change in 1-2 minutes give Adenosine 12 mg rapid IVP over 1-3 second. Followed by bolus/flush normal saline and elevating the extremity.
-May repeat 12 mg dose once more if no change in 1-2 min.
-If at any time the patient becomes unstable, consider synchronized cardioversion. (MP-7)

40. Your patient is complaining of severe chest pain and dyspnea. During your assessment, the patient becomes semiconscious and diaphoretic. The monitor is showing a tachycardic rhythm with a rate greater than 150 beats per min. You should:

UNSTABLE TACHYCARDIA

Synchronized Cardioversion (100J, 200J, 300J, 360J) (MP-7)

41. You arrived at a chest pain call to find a 60 y/o female lying on the kitchen floor. Your patient is unresponsive, pale, diaphoretic and has a **faint carotid pulse of 60 bpm**. Your partner quickly applies patches and begins to look for an IV site. The monitor shows a rhythm resembling ventricular fibrillation. You should:

ACLS SKILLS
When your assessment and monitor readings do not "match", always recheck patient and equipment. (ACLS)

42. Routine cardiac care for patient with chest pain includes:

PATIENTS WITH CHEST PAIN AND/OR POSSIBLE AMI
-Administer oxygen at 2-4 LPM (increase as needed)
-Start IV normal saline to keep vein open
-Monitor cardiac rhythm (ALS)
-Administer four 81 mg aspirin tablets. Instruct the patient to chew and swallow.
(MP-4)

43. Pre-hospital orders/care for the adult insulin dependent diabetic patient may include

Determine blood glucose level with a Glucometer (ALS)
1. If blood glucose level is less than 60 mg/dl:
   a) Establish IV of Normal Saline, TKO rate (ALS)
   b) Administer 50 ml. of 50% Dextrose IV push (ALS)
   c) Administer 1 mg Glucagon IM, if IV is not obtainable and patient is unresponsive or unable to swallow (ALS)

(MP-14)

44. Of the following, which drug is used for suspected or known narcotic overdose?

Medications (ALS)
1. Naloxone if suspected or known narcotic abuse/overdose.
   a) Adult: 1-2 mg IV, ET, IM. May repeat in 2-3 minute intervals for 2-3 doses if no response.

(MP-19)

45. Dopamine is the drug of choice in the prehospital setting to treat:

CARDIOGENIC SHOCK
DOPAMINE 5-20 mcg/kg/minute (MP-22)

46. Of the following conditions, which would NOT indicate the emergent use of a Central Venous Access Devices (CVAD's) in the pre-hospital setting?

Purpose:
-Previously established central lines and other access ports may be utilized during an emergency in the event that a peripheral IV line cannot be established.
-Emergency situations include:
1. Cardiac arrest
2. Major trauma
3. Life-threatening situation requiring immediate need for medication or fluid therapy (MP-15)

47. Which statement about Glucagon is correct?

GLUCAGON
Causes breakdown of glycogen to glucose
Inhibits glycogen synthesis
Elevates blood glucose level (M-1.14)

48. Which of the following is correct regarding Lidocaine IV:

CONTRAINDICATIONS
High degree heart blocks
PVC's in conjunction with bradycardia (M-1.15)

49. Which is a complication of IV therapy?

COMPLICATIONS
-Infection
-Nerve or artery damage
-Tissue sloughing
-Intra-arterial injection
-Air embolism
-Anaphylaxis
-Pulmonary edema
-Catheter embolization

(AP-10.1)

50. Atropine is an antidote for organophosphate poisoning including Malathion and Diazinon. The correct dose for treatment of organophosphate poisoning is:

Atropine 2-5 mg every 10-15 minutes
A. Organophosphate poisoning – insecticides
1. Parathion

2. Malathion
3. Diazinon
4. TEEP

(MP-19)

51. A key side effect to assess for in the patient receiving an IIb/IIIa inhibitor (i.e.Aggrastat, Integrilin or Reopro) IV drip while being transferred is:

Procedure for transfer

A. Obtain patient report from the RN caring for the patient in the transferring facility with special attention to the following:
    1. Patient condition including recent vital signs
    2. All drugs being infused – know rate of infusion for each
    3. Transfer orders – including measures to be taken if bleeding occurs which cannot be controlled with direct pressure.
B. Assess the patient for any signs of bleeding

(A-5.1)

52. Appropriate procedures involving uninjured students from a Category II bus accident include:

Category II or III bus accident/incident.

1. Contact Medical Control, advise of the existence of Category II or III bus accident/incident and determine if a scene discharge of uninjured children/students by the ER Physician in charge of the call is appropriate.
2. Injured children/students by exam and/or complaint are treated and transported as deemed necessary and appropriate by EMS personnel or at the request of the student.
3. Implement provider procedures for contacting school officials or parent/legal guardians to receive custody of the uninjured students consistent with region III policy. Procedure may include option of ambulance service provider escorting bus, if operable, back to school of origin or other appropriate destination.
4. Medical Control, after consulting with scene personnel, will discharge the uninjured students to the custody of the ambulance service provider who then will transfer the custody of the students, consistent with appropriate department and regional policies and procedures, to parent/legal guardians or school officials.
5. Authorized school representatives will sign the log sheet indicating acceptance of responsibility for the students after medical clearance by the EMS personnel finding NO evidence of injury. The school representative will then follow their own policies to include informing the parents/legal guardians as regards to the accident/incident.
6. Any student having reached the age of 18 or older and any adult non-student present on the bus will initial the log sheet adjacent to their name and address when in agreement that they have suffered no injury and are not requesting medical care and/or transport to the hospital.
7. Complete one Prehospital Care Report Form in addition to the School Bus Incident From.

(O-37.1)

53. Which medication may be administered for a patient with overdose of tricyclic antidepressants exhibiting ventricular tachycardia or other dysrhythmias?

Sodium Bicarbonate-Indications

Severe acidosis, Cardiac arrest with prolonged downtime
Tricyclic antidepressant overdose (M-1.23)

54. Which patient would you consider administering external (transcutaneous) pacing?

INDICATIONS:

A. Symptomatic and hemodynamically unstable bradycardias:
   1. sinus or junctional
   2. 2^{O} block, type I
   3. 2^{O} block, type II
   4. 3^{O} block

CONTRAINDICATIONS:

non-symptomatic patient (MP-6)

55. Which of the following statements is true about nitroglycerin tablets?

PRECAUTIONS-NITRO

1. Monitor blood pressure prior to administration and at frequent intervals after administration
2. Observe for syncope
3. Drug must be protected from light (M-1.20)

56. During cardiac arrest, it is often easier to gain IV access via intraosseous (IO) approach. Which is a contraindication to EZIO™ needle insertion?

EZIO™

PURPOSE: Provides an alternative means to gain rapid vascular access in the cardiac arrest patient.

I. Indications: Adult 40 kg or greater (over 88 lbs) in cardiac arrest
   A. EZ IO™ may be considered PRIOR to peripheral IV attempts for cardiac arrest (medical or trauma)

II. Contraindications
   A. Fracture of the tibia or femur (consider alternate tibia)
   B. Previous orthopedic procedures (IO within 24 hours, knee replacement)
   C. Pre-existing medical condition (tumor near site, peripheral vascular disease)
   D. Infection at insertion site (consider alternate site)
   E. Inability to locate landmarks (significant edema)
   F. Excessive tissue at insertion sites (obesity)

(AP-25.1)

57. A search for an IV site continues on a patient with a blood sugar of 38. Which of the following is a possible treatment option for this patient?

EMT and Paramedic able to administer Glucagon, 1mg IM or IN.

(MP-14)

58. Appropriate prehospital care for the OB/GYN patient exhibiting a prolapsed umbilical cord would include:

If the umbilical cord is noted to be protruding from the vagina:

1. Administer oxygen at 15 LPM per non-rebreather mask to the mother
2. Place the mother in knee-chest or Trendelenberg position
3. Insert two fingers of a gloved hand into the vagina to raise the presenting part off the cord. This position will need to be maintained until instructed otherwise at the hospital. At the same time check the cord for pulsations.
4. Cover the exposed cord with a moist sterile dressing. Do not compress, palpate or handle the cord more than necessary

(MP-34)

59. For the normal spontaneous emergency delivery in the field, an APGAR score (appearance, pulse, grimace, activity, respirations) should be done:

APGAR SCORING

Note APGAR score at 1 minute and 5 minutes post delivery. (MP-33)

60. Prehospital care of the unconscious patient of undetermined cause would include:

Other-UNCONSCIOUS UNDETERMINED CAUSE

1. Finger stick glucose to rule out hypoglycemia. (ALS)
    a. If hypoglycemic, treat per protocol MP-7
2. Administer Naloxone in the patient suspected of having a narcotic overdose (ALS)
    a. Adult: 1-2 mg IV, ET, IM – may repeat in 2-3 minute intervals for 2-3 doses if no response.
3. Monitor vital signs, level of consciousness and cardiac rhythm (ALS). (MP-19)

61. When caring for a renal dialysis patient in the prehospital setting, when may a shunt, fistula or graft be utilized?

Use of shunt, fistula, or graft in an emergency: (ALS)

A. If the patient has cardiac standstill or ventricular fibrillation or the patient's blood pressure is very low and venipuncture is not possible, the shunt, fistula or AV graft can then be used to administer life saving drugs or IV fluids.

B. If the patient has a shunt -- disconnect the two small tubes, apply copper clip or any clamp on the arterial line; (arterial line is mostly on the radial side of the wrist). Attach IV line or syringe directly to the venous line.

C. In patients with fistulas a regular butterfly needle or IV needle can be inserted in any of the prominent veins.

D. In patients with AV grafts -- IV needle can be inserted to the venous side of the graft (ulnar side).

(MP-15)

62. Prior to accepting a refusal from a patient, you must:

Refusal Procedure

A. Assess the patient and obtain vital signs. If the patient refuses assessment, document this in the narrative.

B. Explain to the patient or legal guardian the risks associated with their decision to refuse treatment/transport.
C. Medical Control MUST be contacted via radio or phone to verify the refusal.
D. After concurrence of Medical Control to accept the refusal, obtain signatures of the patient or legal guardian and the EMS provider obtaining the refusal. It is always preferable to have two witnesses if possible.
E. If the patient or legal guardian refuses treatment and/or transport after having been informed of the risks involved and also refuses to sign the refusal form, relay this information to Medical Control

(MP-1)

63. What is the correct joule setting for the 2nd and 3rd shocks of a child in ventricular fibrillation?

Ventricular Fibrillation or Pulseless Ventricular Tachycardia

Defibrillate 2J/kg (Continue CPR while defibrillator is charging)

After 2 min of CPR…Give 1 shock of 4 J/kg or utilize AED
Resume CPR immediately for 2 minutes

(PED-2.2)

64. Paramedics and ECRNs are mandatory reporters when a patient is a victim of child abuse or neglect. Which patient would potentially be reported to the Child Abuse Hotline?

I Required Reporting

EMS providers are required to report any child or elderly person whom you have reasonable cause to suspect has been abused or neglected.

II. Possible Indicators of Abuse and/or Neglect:

A. Obvious or suspected fractures in a child under age two.
B. Injuries in various stages of healing, especially burns or bruises.
C. Injuries scattered over many body parts.
D. Bruises or burns in a pattern which suggests intentional infliction.
E. Injuries which do not match the history.
F. Vague, inconsistent or changing history.
G. Delay in seeking treatment.
H. Inappropriate clothing, signs of poor nutrition or poor care.
I. Abandonment of an elderly person or child unable to care for themselves.

(MP-36)

65. Which treatment is indicated for the unconscious patient of unknown etiology?

Other-UNCONSCIOUS UNDETERMINED CAUSE

-Finger stick glucose to rule out hypoglycemia. (ALS)
If hypoglycemic, treat per protocol MP-7
-Administer Naloxone in the patient suspected of having a narcotic overdose (ALS)
Adult: 1-2 mg IV, ET, IM – may repeat in 2-3 minute intervals for 2-3 doses if no response.
-Oxygenation/Ventilation
1. Administer oxygen
2. Assist ventilations as needed
-Circulatory
1. Initiate an IV normal saline TKO (ALS) (MP-19)

66. The pediatric dosage for epinephrine in cardiac arrest is:

PEDIATRIC CARDIAC ARREST ALS CARE GUIDELINE

-Secure airway as appropriate
-Establish vascular access IV/IO NS @TKO
-Epinephrine IV/IO 0.01 mg/kg (0.1 ml/kg) 1:10,000 or
-ET 0.1 mg/kg (0.1 ml/kg) 1:1,000 May repeat every 3-5 minutes

(PED-2.2)

67. Prior to dispatching ALS assistance to an incoming ambulance transporting a patient with a serious injury, Medical Control or the receiving facility should:

Prior to dispatching ALS assistance, the receiving hospital should weigh the benefits of the ALS assistance to the patient against the ETA to the hospital and subsequent delay in transport that would occur. (C-2)

68. Which patient would benefit from CPAP therapy enroute to the hospital?

Ventilator Management: CPAP

Indications:

A. Awake and able to follow commands
B. Is over 12 years old and is able to fit the CPAP mask
C. Has the ability to maintain an open airway
D. AND exhibits two or more of the following:
    1. A respiratory rate greater than 25 breaths per minute
    2. SPO2 of less than 94% at any time
    3. Use of accessory muscles during respirations

Contraindications

A. Patient is in respiratory arrest/apneic
B. Patient is suspected of having a pneumothorax or has suffered trauma to the chest
C. Patient has a tracheostomy
D. Patient is actively vomiting or has upper GI bleeding
E. Patient has decreased cardiac output, obtundation and questionable ability oto protect airway, (i.e. stroke), penetrating chest trauma, gastric distention, severe facial injury, uncontrolled vomiting and hypotension secondary to hypovolemia. (MP-8)

69. Which of the following measures should be taken first in a neonatal resuscitation with no signs of meconium present?

NEONATAL RESUSCITATION ALS CARE GUIDELINE

Meconium Absent

Dry/stimulate/cover head/keep warm

RR slow/gasping absent

Position airway
Support ventilation with BVM 100% O_2 @40-60/min. for 15-30 sec

(PED-21.2)

AIRWAY, TRAUMA and SHOCK

70. On a snow covered road, you arrive to find a driver involved in a MVC, car vs electric pole with estimated speed of 30 mph. Driver was belted and airbags did deploy. The patient is ambulating at the scene and reports neck pain of 3/10 when questioned. No signs of alcohol intoxication are present. Due to road conditions, transport time to receiving hospital is 50 minutes. The most appropriate steps would be to:

- **Other PEARLS for consideration…**
  - If patient meets assessment criteria but is ambulatory at the scene or if a prolonged transport of greater than 45 minutes is anticipated, place a cervical collar on the patient, position on a firm stretcher and instruct the patient to limit spine movement.
  - EMS provider discretion and medical practice should be a guide when determining the need for and circumstances when spinal motion restriction should be employed.
    (Examples: An uncooperative patient fighting the application of spinal motion restriction is not in the patient's best interest; a patient with airway issues that require patient to be positioned other than supine will take precedence over immobilization.
  - Spine boards should be removed in the Emergency Department at the discretion of the ED Physician at the earliest appropriate time.
  - **If in doubt, follow spinal motion restriction guidelines**

71. For volume expansion in the pediatric patient, a rapid bolus of _____ should be given initially followed by additional boluses if needed.

HYPOVOLEMIC SHOCK
(Suspected dehydration/volume /loss /hemorrhagic shock)
-Establish vascular access IV/IO NS @TKO
-Administer fluid bolus 20 ml/kg
-If no response to initial fluid bolus, repeat at 20 ml/kg as indicated to maximum of 60 ml/kg
(PED 9.2)

72. The preferred site for needle chest decompression is:

Procedure:
a. Attach the 10 cc syringe to the IV catheter
b. Locate the **2nd intercostal space mid-clavicular line**
c. Cleanse the site with alcohol or Betadine
d. Insert the IV catheter at the superior border of the 3rd rib
e. Push the needle until you feel a pop as you enter the pleural space
f. The plunger of the syringe will be pushed outward by pressurized air exiting the chest
g. Advance the catheter over the needle until it is flush with the skin
h. Discard the needle
i. Secure the catheter in place with tape (AP-1)

73. You respond to a one-vehicle car crash in a remote area. Upon assessment of the driver, you note the patient to be in acute respiratory distress with absent breath sounds on the right side, jugular vein distention, hyperresonance to percussion on the right chest wall, normal heart tones and tracheal deviation to the left. You suspect:

SIGNS OF A TENSION PNEUMOTHORAX
A. Absent or diminished lung sounds on the affected side
B. Progressive respiratory distress and/or increased resistance to bagging
C. Tracheal deviation
D. Jugular vein distention
E. Signs of shock with chest trauma present

74. Which is the first step in the treatment of the child with suspected hypovolemic shock?

First Steps in shock Treatment

-Assess ABC's
-Secure airway as appropriate
-Administer 100% oxygen
-Complete initial assessment
-Cardiac Monitor
-Supine position

Second steps

-Establish vascular access IV/IO NS @TKO
-Administer fluid bolus 20 ml/kg
-If no response to initial fluid bolus, repeat at 20 ml/kg as indicated to max. of 60 ml/kg

(PED-9.2)

75. You are called to the scene of a house fire. A fifty-year-old female is complaining of dyspnea and burns to her face and anterior chest. Upon assessment you note singed eyebrows, sooty deposits in the mouth and nose and blistering of her right cheek, forehead and anterior chest with estimate 20% TBSA burn. You suspect the patient has an injury involving the respiratory tract. Treatment for this patient would include:

TREATMENT OF BURNS

A. Airway Management - be alert to the possibility of associated pulmonary injuries if the burn occurred in an enclosed space or during an explosion. Note any toxic fumes.
    1. Ensure patent airway
    2. Suction if necessary
    3. Utilize oral or nasal airway as needed
    4. Perform endotracheal intubation if necessary (ALS)
B. Oxygenation/Ventilation
    1. Administer oxygen
    2. Assist ventilations if necessary
    3. Monitor O2 saturation if pulse oximetry is available
C. Circulatory
    1. Initiate at least 1 large bore IV line (minimum 16 gauge) as is appropriate depending upon extent of burns/site available (ALS). (MP-25)

76. Which is an indication for endotracheal intubation?

Indications:

-Comatose patients with inadequate airway
-Respiratory arrest

(MP-2)

77. The preferred site for intraosseous infusion is the:

Procedure

A. Take universal precautions
B. Assemble and prepare all equipment
C. Grasp the thigh and knee above and lateral to the site to stabilize the tibia. DO NOT allow any portion of your hand to rest behind the site.
D. Locate the puncture site 1-3 cm distal to the tibial tuberosity and slightly medial.
E. Prep the site with alcohol or Povidine.
F. Angle the needle slightly toward the foot.
G. Insert the needle firmly through the skin, subcutaneous tissue , and periosteum of the bone with a twisting motion.
H. Stop advancing the needle when a sudden decrease in resistance is felt.
I. Withdraw the stylet (may need to unscrew cap).
J. Slowly inject 10 cc of normal saline and observe for patency:
    1. free flow without signs of infiltration
    2. the needle can stand upright without support
K. Attach IV tubing and set to desired rate.
L. Secure the needle with tape.

(AP-19)

78. Appropriate application, assessment and indication for use of a tourniquet includes:

Tourniquets

Use of tourniquets does not require on-line medical direction; however, there may be situations in which medical direction consultation is advised. The goal of tourniquet application is to control hemorrhage. Overall morbidity and mortality, however, is affected by multiple factors related to type of device, application technique, and duration of application. Fortunately, civilian extremity exsanguination is exceedingly rare.

I. Indications:

A. To control potentially fatal hemorrhage from wounds or traumatic amputations when significant extremity bleeding cannot be stopped using simpler methods.
B. Tourniquet may also be indicated in tactical or safety situations, those involving prolonged extrication, remote locations, and multiple casualties.
C. Tourniquets may be considered when treating patients who have had prolonged compression of an entrapped extremity in order to decrease the life-threatening release of potassium and acids from the ischemic limb.

II. Contraindications

A. Venous, bony and small vessel bleeding
B. Tourniquet application is generally unnecessary when wound bleeding is adequately controlled using direct pressure, pressure dressings, elevation, or any other simpler method.
C. Non-extremity hemorrhage

(AP-27)

79. Your patient is refusing treatment and transport after an MVC. Under which circumstance would you be able to accept a refusal at the scene without calling report to Medical Control?

Low Risk Refusals ***(NO need to call Medical Control)***

A. *Low speed MVC without significant injury.*
B. *Isolated injuries not related to a high risk mechanism.*
C. *Third party calls where no injury or illness is present.*
D. *Non-injury call for assistance.*
E. *A patient with no other concerning complaints whose mental status is not normal, but is confirmed to be usual for the patient by family or friends who will remain on scene with the patient after EMS departure.*
F. *f. A patient with hypoglycemia due to insulin use which was corrected by administration of oral glucose or IV dextrose 50% and whose family or friend who will remain on scene after EMS departure.*
G. *g. A patient with a respiratory complaint that requires only one albuterol nebulizer treatment to correct.*
H. *A patient with heat-related muscle cramps that requires only IV fluid administration to correct*

80. You are having difficulty placing an endotracheal tube in patient with respiratory distress. You quickly recall the contraindications of a Combitube airway. Which patient would be appropriate to use a Combitube airway?

Contraindications:

A. Patient with an intact gag reflex.
B. Patient under age 16 and/or under 5 feet tall.
C. Patient with known esophageal disease.
D. Patient with a history of esophageal trauma/or ingestion of caustic substance.
E. Patient with a tracheostomy or laryngectomy.
F. Patient with a foreign body obstruction in the trachea. (AP-7)

81. Which statement is INCORRECT regarding the procedure for nasal intubation?

Equipment

A. Endotracheal tube
    1. Use an Endotrol tube or bend the tube into a circle while preparing the patient and equipment.
    2. Use a tube 1 mm smaller than the correct orotracheal size for the patient.
B. 10 cc syringe
C. Water soluble lubricant
D. Tape/gauze to secure the tube

Procedure-Nasal Intubation

A. Prepare equipment and patient
    1. Explain the procedure to the patient.
    2. Check all equipment, lubricate the tube.
    3. Oxygenate/hyperventilate for two minutes if possible.
B. Select larger/clearer nostril for insertion.
C. Stand or kneel to the side of the patient with the tube in one hand. Palpate the anterior neck in the area of the larynx with the other hand.
D. Insert the tube into the nostril with the bevel toward the septum.
E. Advance the tube gently.
F. When maximal airflow is heard through the tube, gently and quickly advance it during the next inspiration.
G. You should observe misting/condensation in the tube. The patient may cough or buck the tube.
H. Inflate the cuff.
I. Check the tube placement via auscultation of lung fields, auscultation over the epigastrium and EID.
J. Secure the tube. (AP-23)

82. According to Illinois law, as a mandated reporter of child abuse, ECRNs and paramedics must:

Report suspicions to ED physician, ED charge nurse and DCFS (1-800-25-ABUSE) (PED-20)

83. Which could be considered a form of child neglect?

The following are some common forms of neglect

a) Environment is dangerous to the child (e.g., weapons within reach, playing near open windows without screen/guards, perilously unsanitary conditions, etc.).
b) Caretaker has not provided, or refuses to permit medical treatment of child's acute or chronic life-threatening illness, or of chronic illness, or fails to seek necessary and timely medical care for child
c) Child under the age of 10 has been left unattended or unsupervised. (Although in some situations children under 10 years of age may be left alone without endangerment, EMS personnel cannot make such determinations). All instances should be reported for DCFS investigation.
d) Abandonment
e) Caretaker appears to be incapacitated (e.g., extreme drug/alcohol intoxication, disabling psychiatric symptoms, prostrating illness) and cannot meet child's care requirements.
f) Child appears inadequately fed (e.g., seriously underweight, emaciated, or dehydrated) inadequately clothes, or inadequately sheltered.
g) Child is found to be intoxicated or under the influence of an illicit substance(s).

(PED-20.2)

84. Pediatric burns that would be an appropriate transfer to a burn center include:

Any patient with a life threatening condition should be treated until stable at the nearest appropriate facility before being transferred to a burn center.

Listed below is the American Burn Association criteria for pediatrics to be **transported to a burn center**:

-Second and third degree burns greater than 10% body surface area (BSA) in patients < 10 years of age.
-Second and third degree burns greater than 20% BSA in other age groups.
-Second and third degree burns that involve the face, hands, feet, genitalia, perineum and major joints.
-Third degree burns greater than 5% BSA in any age group. (PED-17.3)

85. Patients with serious trauma nay need interventions that are not available in the pre-hospital setting, making rapid transport a priority. Which of the following are considered "load and go" situations:

Certain signs/symptoms require the trauma patient to be immediately loaded onto a spine board, transferred to the ambulance, and transported rapidly with lights and siren. Non-lifesaving procedures (such as splinting and bandaging) may be needed but should be done during transport. Life-saving procedures must not delay transport.

The following are critical situations that require **"load and go"**

-Cardiac/respiratory arrest
-Obstructed airway
-Decreased level of consciousness
-Respiratory difficulty
-Signs of shock

-Injuries that will rapidly lead to shock or respiratory difficulty:

*flail chest
*open pneumothorax
*tender abdomen
*unstable pelvis
*bilateral femur fractures
*poorly controlled major bleeding (O-23)

86. The only absolute contraindication for use of a pneumatic antishock garment (MAST) is:

CONTRAINDICATIONS

A. Pulmonary Edema
B. Evisceration (may use leg compartments)
C. Pregnancy (may use leg compartments) (AP-3.1)

87. Unless delayed by extrication or other mitigating circumstances, the goal is to have an on scene time of ten minutes or less when the patient is seriously injured. Which procedures should be initiated while en route to the hospital?

Unless delayed by extrication or other mitigating circumstances, the goal is to have a total on-scene time of 10 minutes or less.

A. The following procedures are appropriate to provide on scene in a load and go situation.
    1. Airway management
    2. Oxygen
    3. Stabilize flail chest
    4. Seal open pneumothorax
    5. Needle chest decompression
    6. Stabilize impaled objects
    7. Spinal immobilization
    8. Control major bleeding

B. All other procedures including IV therapy, splints, bandaging should be performed enroute unless the patient is entrapped and the procedures can be done during extrication.

(O-23)

88. Which of the following statements regarding the care of an amputated part is NOT true?

PREHOSPITAL PROTOCOL FOR AMPUTATED PARTS

Prehospital protocol for handling amputated parts intended for reanastomosis.

-Any gross contaminants on the part should be removed by rinsing the part in sterile saline solution.
-No attempt should be made to debride or otherwise clean up the amputated part.
-The part should be rinsed, wrapped in a moist but not wet sterile dressing, placed in a plastic bag and tightly sealed to prevent direct contact with liquid substances. The sealed bag should then be placed in iced saline or sterile water.
-Cover stump with sterile dressing.
-Patient transport should not be delayed by the search for the amputated part. Search can be continued by other personnel (i.e. 2nd ambulance, fire, law enforcement) while patient is transported.

(MP-24)

89. Which of the following statements is true regarding the prehospital treatment of serious burns?

Burns

A. Airway Management - be alert to the possibility of associated pulmonary injuries if the burn occurred in an enclosed space or during an explosion. Note any toxic fumes.
    1. Ensure patent airway
    2. Suction if necessary
    3. Utilize oral or nasal airway as needed
    4. Perform endotracheal intubation if necessary (ALS)

B. Oxygenation/Ventilation
    1. Administer oxygen
    2. Assist ventilations if necessary
    3. Monitor O2 saturation if pulse oximetry is available

C. Circulatory
    1. Initiate at least 1 large bore IV line (minimum 16 gauge) as is appropriate depending upon extent of burns/site available (ALS). Administer fluids at rate dependent on blood pressure/Medical Control.
    2. Cardiac monitoring (ALS) (MP-25)

90. Criteria to request a scene response by a helicopter air ambulance would include:

Criteria for Helicopter

-Category I trauma or seriously ill patient in remote or off-road locations not easily accessible to ground ambulances, or whose location may cause delay in transport time.
-MVC or incident with prolonged extrication time anticipated (> 20 minutes).
-Special environmental conditions such as extreme heat or cold which affect potential patient outcome or prohibit ground access to the hospital (road or bridge damage).
-No available trauma center within 20 minutes by ground transport time.
-Reduction in transport time to a trauma center compared to ground transport for the seriously injured patient
-Ground transport resources are exhausted or exceeded (multi-casualty or multiple calls).

(O-28.1)

91. Supine-hypotension syndrome can occur in the pregnant trauma patient over _____ weeks gestation when the enlarged uterus compresses the _____

Supine-Hypotensive Syndrome

A. May occur in pregnant patients over 20 weeks gestation due to the gravid uterus compressing the inferior vena cava when the patient is supine.

B. Treatment
    1. Administer oxygen
    2. Place the patient on her left side
    3. Initiate an IV line and administer a fluid bolus if needed to maintain blood pressure at a minimum of 100 systolic. (ALS)
    4. Consider use of PASG (MAST) leg sections only*
       *(Note: BLS to contact Medical Control before inflating.)
    5. Monitor vital signs and fetal heart tones (PHTLS)

92. Which is not indicated in the care of the adult patient in anaphylactic shock?

Medications (ALS)

1. Administer epinephrine 1:1,000 solution
    a. Adults: 0.3 mL subcutaneously for a mild reaction
    b. Peds: 10 kg 0.1mL IM
        20 kg 0.2mL IM
        30 kg 0.3mL IM*
        *Maximum dose: 0.3 mL IM. May be repeated in 15 min.
2. Administer epinephrine 1:10,000 solution, 5.0 ml at 1 mL/min IVP for a severe reaction
3. Administer Benadryl:
    a. Adults - 50 mg slow IV push
    b. Peds - 1 mg/kg slow IV push*
        *Maximum dose: 50mg
4. If patient is conscious, Albuterol 2.5 mg via nebulizer may be considered but must be used with extreme caution if epinephrine has been administered

B. Epi-Pen (BLS)

1. BLS transport and BLS non-transport agencies: (Per protocol AP-24)
    a. Epi pen 0.3 mg IM
    b. Epi pen (Pediatric) 0.15 mg IM
2. EMT-B's working for First Responder agencies can assist the patient with Epi-pen injection (MP-11)

93. Which of the following assessment findings would indicate decreased perfusion in the 6 month old pediatric patient?

Circulation

1. Heart rate – compare to normal rate for age and situation
2. Central/truncal pulses (brachial, femoral, carotid) – strong, weak or absent
3. Distal/peripheral pulses – present/absent, thready, weak, strong
4. Color – pink, pale, flushed, cyanotic, mottled
5. Skin temperature – hot, warm, cool
6. Blood pressure – compare to normal for age of child. Must use appropriately sized cuff
7. Hydration status – anterior fontanel in infants, mucous membranes, skin turgor, crying tears, urine output history (PED-1.3)

94. Paramedics in the QAEMS System have training to place the EZ IO needle in certain patient populations if a peripheral line cannot be obtained. According to protocols, which patient can the paramedic attempt an EZ IO placement if a peripheral line is unable to be obtained?

Contraindications

a. fracture of the tibia or femur
b. previous orthopedic procedures
c. preexisting medical conditions (ie tumor near site)
d. infection at insertion site
e. inability to locate landmarks
f. Excessive tissue at insertion site (obesity)

(AP-25.1)

95. Which statement is NOT true regarding adult endotracheal intubation?

Contraindications:

A. Patients with a gag reflex
B. Comatose patients ventilating adequately

Complications:

A. Teeth or dentures may be broken
B. Esophageal Intubation
C. Right mainstem bronchial intubation
D. Laryngeal injury (soft tissue)

Precautions:

D. Should not take longer than 20 seconds.
E. Do not use teeth as a fulcrum.
F. If not successful after 3 attempts, maintain airway and ventilate with 100% oxygen using. bag-valve-mask or positive pressure; attempt combitube if not contraindicated.

(AP-6.1)

96. Treatment for the victim of a heat related emergency may include:

Heat Exhaustion/Heat Stroke

A. Treatment
    1. Move the patient to a cool environment
    2. Remove excessive clothing.
    3. If hypotensive or unconscious:
        a. maintain an open airway
        b. oxygen per nasal cannula or mask as needed.
        c. initiate an IV of normal saline and administer an initial fluid bolus of 200 ml. (ALS).
        d. monitor cardiac rhythm (ALS).
        e. perform and transmit 12 lead EKG if possible (ALS).
        f. initiate cooling of the heat stroke victim with cold packs or cool soaks to the neck, axilla, and groin. (MP-30)

97. Prehospital treatment of isolated frostbite includes:

Isolated Frostbite

Treatment:

Move the patient to a warm environment.
Remove wet, restrictive clothing.
Cover affected areas with dry, sterile dressings.
Prevent thawing/re-freezing of the affected areas.
Rewarming of frostbitten tissue is best performed in the controlled setting of the emergency department.

(MP-29)

98. Which patient would require spinal restriction using a long spine board?

INDICATIONS for spinal immobilization

A. All trauma patients with a neurological deficit.
B. All trauma victims complaining of head, neck, or back pain.
C. All unconscious trauma victims.
D. All trauma victims who may have spinal injury, who also exhibit altered mental states, (e.g., drugs, alcohol).
E. All trauma victims with facial or head injuries.
F. All trauma patients with "mechanism of injury" that may have resulted in spinal injury. (AP-2.1)

99. An ambulance is called to a local residence for an injured child. Which of the following might be indications of child abuse?

Possible Indicators of Abuse and/or Neglect:

-Obvious or suspected fractures in a child under age two.
-Injuries in various stages of healing, especially burns or bruises.
-Injuries scattered over many body parts.
-Bruises or burns in a pattern which suggests intentional infliction.
-Injuries which do not match the history.
-Vague, inconsistent or changing history.
-Delay in seeking treatment.
-Inappropriate clothing, signs of poor nutrition or poor care.
-Abandonment of an elderly person or child unable to care for themselves. (MP-36)

100. You respond to a one-vehicle car crash in a remote area. Upon assessment of the driver, you note the patient to be in acute respiratory distress with absent breath sounds on the right side, jugular vein distention and hyperresonance to percussion on the right chest wall. You should:

INDICATIONS: SIGNS OF TENSION PNEUMOTHORAX

A. Absent or diminished lung sounds on the affected side
B. Progressive respiratory distress and/or increased resistance to bagging
C. Tracheal deviation
D. Jugular vein distention (AP-1)