New York State

Bureau of Emergency Medical Services

Department of Health

STATEWIDE PRE-HOSPITAL

TREATMENT PROTOCOLS

Version 16.04

BLS Protocols
Version Updates

Version and Date	Updated Items
16.02 03/10/2016	**M – 2** Altered Mental Status: updated for agencies not approved for the use of blood glucometer testing. **T – 2** External Hemorrhage Control: updated SEMAC requested change clarifying tourniquet placement location. **Appendix – A**: updated with EMS-C pediatric information **Appendix – B**: updated NYS Trauma Center information
16.03 04/01/2016	All protocols updated to meet the CFR scope of practice. Even though most CFR providers are not operating directly with a transporting agency, the references to transportation and On-going assessments have been left in-place, with no stop lines, to assist with uniformity. Additional minor updates to assure recent protocol changes have been reflected in those protocols that were subject directly to previous updates, i.e. Amputation protocol. M-5 Cardiac protocol updated to include BLS 12-lead. ** denotes EMT or higher only.
16.04 12/22/2016	Updated General Approach section added.

Preface and Acknowledgments

The New York State (NYS) Statewide Adult & Pediatric Treatment Protocols has been revised to comply with the current New York State and National EMS education standards.

It is important for all EMS providers certified in New York State to know that Title 10 of the New York Codes, Rules and Regulations, Part 800.15 (a) requires:

Every person certified at any level pursuant to this Part or Article 30 of the Public Health Law shall:

(a) comply with prehospital practice standards, applicable for the geographic region of the State in which the individual is practicing, as established by:

(1) State-approved training curricula and State-approved training standards, in accordance with section 800.20 of this Part;

(2) State-approved protocols developed by State and/or Regional Medical Advisory Committees pursuant to sections 3002-a and 3004-a of the Public Health Law; and

(3) Scope of Practice as defined in Section 800.3….

We would like to acknowledge the members of the New York State EMS Council's Medical Standards Committee for the time and effort given to developing and revising these protocols. In addition, we would like to recognize the efforts of the sixteen (16) Regional Emergency Medical Advisory Committees (REMACS) for their input.

Introduction

The NYS Statewide Adult and Pediatric Treatment Protocols were developed by the Bureau of Emergency Medical Services and Trauma Systems of the New York State Department of Health, the State Emergency Medical Advisory Committee and the New York State Emergency Medical Services Council. Further, as required by the Public Health Law, these protocols have been reviewed and approved by the New York State Emergency Medical Advisory Committee (SEMAC) and the New York State Emergency Medical Services Council (SEMSCO). The prehospital patient treatment protocols reflect the current acceptable statewide standard of care for adult and pediatric basic life support (BLS) used by the Certified First Responder (CFR), Emergency Medical Technician (EMT) and Advanced Emergency Medical Technician (AEMT), EMT-Critical Care (CC), and Paramedic (P).

These protocols are not intended to be absolute and ultimate treatment doctrines, but rather standards which are flexible to accommodate the complexity of pre hospital patient management. These protocols should be considered as a standard by which all patients should be treated. Since patients do not always fit into a "cook book" approach, these protocols are not a substitute for **GOOD CLINICAL JUDGMENT**, especially when a situation occurs which does not fit these standards.

This document also includes a general approach to the prehospital management of a patient, which is applicable for the management of specific conditions. These protocols apply to both adults and children. In several cases, protocols designed specifically for adults or children are separated. These are identified as such in their titles.

Several assumptions have been made in developing the specific protocols. First, the certified EMS provider has followed the general approach to the prehospital management of the patient, that both the subjective and objective patient information has been analyzed and the patient assessed in order to arrive at an appropriate treatment plan. Secondly, specific treatment protocols are referred to once the patient's medical emergency has been identified. Significant indirect (off-line) medical control has been assumed in the development of these protocols. It was also assumed that appropriate local direct (on-line) medical control at both the basic life support (BLS) and advanced life support (ALS) level will be provided.

Regional EMS councils, regional emergency medical advisory committees (REMACs), EMS course sponsor agencies, regional and local medical directors and EMS response organization training officers play an important part in the implementation of these and future protocols.

The goal of prehospital emergency medical care is to provide **DEFINITIVE CARE** for the patient as rapidly and safely as the situation indicates. When the patient's medical condition requires ALS level care, it is expected that BLS response units will make every effort to obtain it. This may be accomplished either by intercepting with an ALS unit or by transport to the appropriate hospital, which ever can be effected more quickly.

A system of ALS intercept (when available in a given area) must be pre-arranged. Formal written agreements must be developed in advance by those agencies not able to provide ALS. ALS requests should be initiated as soon as possible whenever indicated. Initiation of patient transport shall not be delayed to await the arrival of an ALS unit, unless an on-line medical control physician otherwise directs.

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General Patient Approach

General Approach to Prehospital Patient Management

I. Scene Size-Up – Scene Safety

A. Assess for hazards upon approach to and within the scene.

i. Common hazards:
    1. Environmental
    2. Hazardous substances
        a. Chemical
        b. Biological
    3. Violence
        a. Patient
        b. Bystanders
        c. Crime scenes
    4. Rescue
        a. Motor vehicle collisions
            i. Extrication hazards
            ii. Roadway operation dangers
        b. Special situations

B. Evaluation of the scene – Is the scene safe?

i. Yes – establish patient contact and proceed with your patient assessment.
ii. No – is it possible to quickly and safely make the scene safe?
    1. Yes – proceed with your patient assessment once scene is safe
    2. No – do not enter any unsafe scene until hazards are minimized and you have deemed the scene safe
iii. Request specialized resources as soon as possible, i.e. police, fire, etc.

II. Scene Size-Up – Scene Management

A. Impact of the environment of patient care

i. Medical
    1. Determine nature of illness
    2. Hazards at medical emergency scenes
ii. Trauma
    1. Determine mechanism of injury
    2. Hazards at trauma emergency scenes
iii. Environmental considerations
    1. Weather conditions, i.e. extreme temperatures, precipitation, etc.
    2. Toxins and gases
    3. Secondary collapse and falls
    4. Unstable conditions

B. Addressing Hazards

i. Protect the patient
    1. After declaring the scene is safe for responders, the safety of the patient becomes the next priority
    2. If you cannot alleviate the conditions that represent a health or safety threat to the patient, move the patient to a safer environment
ii. Protect bystanders
    1. Minimize conditions that represent a hazard for bystanders
    2. If you cannot minimize hazards, remove bystanders from the scene
iii. Request additional resources
    1. Multiple patients – multiple ambulances
    2. Fire hazard – fire department

3. Traffic or violence issues – law enforcement

iv. Survey the scene for information related to
    1. Mechanism of injury
    2. Nature of illness

C. Violence

i. Personnel should not enter a scene or approach a patient if the threat of violence exists
ii. Park away from the scene (safe distance and/or not visible to people at the scene) and wait for the appropriate law enforcement to minimize the danger and deem the scene safe

D. Need for additional or specialized resources

i. A variety of specialized protective equipment and gear is available for specialized situations. You need to know what is available to you within your area.
    1. Chemical and biological suits can provide protection against hazardous materials and biological threats of varying degrees
    2. Specialized rescue equipment may be necessary for difficult or complicated extrications
    3. Ascent or descent gear may be necessary for specialized rescue situations
ii. Only trained responders should wear or used specialized equipment

E. Standard precautions

i. Overview
    1. All blood, body fluids, secretions, non-intact skin, and mucous membranes may contain transmissible infectious agents
    2. Always include a group of infection prevention practices that apply to all patients, regardless of suspected or confirmed infection status, in any healthcare delivery setting
    3. Universal precautions are designed to protect healthcare personnel
    4. Standard precautions are designed to protect the patient

ii. Implementation
    1. The extent of standard precautions used is determined by the anticipated blood, body fluid, or pathogen exposure
        a. Hand washing – especially after each individual patient contact
        b. Gloves
        c. Gowns
        d. Masks
        e. Protective eyewear

iii. Personal protective equipment (PPE)
    1. PPE includes clothing or specialized equipment that provides some protection to the wearer from substances that may pose a health or safety risk
    2. Wear PPE appropriate for the potential hazard(s)
        a. Steel-toe footwear
        b. Helmets
        c. Heat-resistant outerwear
        d. Self-contained breathing apparatus
        e. Leather / work gloves

F. Multiple-patient situations

i. Determine the number of patients and need for additional resources
    1. Does dispatch information suggest the need for additional resources?
    2. How many patients?

3. Protection of the patient
    a. Weather conditions
    b. Unstable conditions
4. Protection of bystanders
    a. Isolate
    b. Remove
    c. Barricade

ii. Need for other additional resources
1. Incident Command System (ICS or IMS)
2. Consider what level of commitment is required for the situation

III. Primary Assessment

A. Initial General Impression – based on patient age-appropriate appearance

i. Appears stable
ii. Appears stable but potentially unstable
iii. Appears unstable

B. Level of Consciousness (LOC)

i. While approaching the patient or immediately upon patient contact, attempt to establish their level of consciousness
1. Speak to the patient to determine level of responsiveness
2. Identify yourself to the patient
3. Explain that you are there to help

ii. Patient response
1. Alert
    a. Patient is awake and answering questions appropriately
2. Responds to verbal stimuli
    a. Patient opens their eyes in response to your voice commands
    b. Not be able to appropriately answer all questions
3. Responds to painful stimuli
    a. Patient does not respond to your voice commands
    b. Patient reacts only when you apply some form of irritating stimulus, i.e. sternal rub, pinching earlobe, etc.
4. Unresponsive
    a. Patient does not respond to any stimulus

C. Airway Status

i. Unresponsive patients
1. Medical patients
    a. Open and maintain airway with head-tilt, chin-lift technique
    b. Follow current American Heart Association guidelines for steps in performing this maneuver

2. Trauma patients
    a. Open and maintain airway with modified jaw thrust technique, while maintaining cervical spine stabilization
    b. Follow current American Heart Association guidelines for steps in performing this maneuver

3. Suction as needed to maintain an open and unobstructed airway

ii. Responsive patients
1. If patient can speak, the airway is functional, but may still be at risk for obstruction
2. Suction as needed to maintain an open airway

iii. Obstructed airway
    1. Follow current American Heart Association guidelines for steps in relieving an obstructed airway

iv. Airway patency must be continuously monitored and assessed

D. Breathing Status

i. Responsive and unresponsive patients
    1. Breathing adequate (rate and quality)
    2. Breathing is too fast (> 24 breaths per minute)
    3. Breathing is too slow (< 8 breaths per minute)
    4. Auscultate mid-axillary point bilaterally to determine if there is lung expansion bilaterally
    5. Breathing is absent (choking/respiratory arrest)
        a. (assess for resuscitation requirements and follow appropriate protocol)

E. Circulatory Status

i. Radial pulse present (rate and quality)
    1. Within normal range of beats per minute for patient age and circumstances
    2. Too fast
    3. Too slow
    4. Irregular rate
    5. Absent (assess for resuscitation requirements and follow appropriate protocol)

ii. Assess for the presence of major bleeding (this should be accomplished simultaneously with pulse assessment for breathing patients)

iii. Perfusion status
    1. Skin color
    2. Skin temperature
    3. Skin moisture
    4. Capillary refill (as appropriate)

F. Identify Life Threats

i. Determine and treat immediately, any life-threatening conditions

IV. Determine priority of patient care and transport

A. Primary Assessment
    i. Stable (continue with assessments and treatment)
    ii. Potentially Unstable (continue with assessments and treatment while preparing for transport)
    iii. Unstable (begin transport and continue with assessments)

V. Obtain Vital Signs (document all findings)

A. Respirations

i. Visual inspection of chest and back (symmetry, color, shape, etc.)
ii. Respiratory effort
    1. Use of accessory muscles
    2. Retractions
iii. Respiratory rate
    1. Breaths per minute
    2. Quality of breaths

3. Adequate tidal volume

iv. Auscultation of chest and when possible patient's back
    1. Presence or absence of breath sounds
    2. Auscultate at minimum 8 points
        a. Bilateral anterior upper lobes
        b. Bilateral anterior lower lobes
        c. Bilateral posterior upper lobes
        d. Bilateral posterior lower lobes

B. Cardiovascular System

i. Pulse
    1. Rate of beats per minute
    2. Rhythm (regular or irregular)
    3. Strength

ii. Perfusion
    1. Blood pressure
        a. Utilize appropriately sized equipment for the patient
        b. Assure proper cuff placement
        c. Methods of measurement
            i. Auscultation (systolic and diastolic)
            ii. Palpation (diastolic only; only if patient condition necessitates)

    2. Skin
        a. Color
        b. Temperature
        c. Moisture
        d. Capillary (pediatric patients required)

    3. Pupils
        a. Equal
        b. Symmetry and shape
        c. Reactive vs non-reactive

C. Repeated Vital Signs

i. Stable patients at least once every 15 minutes
ii. Potentially unstable patients once every 5 minutes
iii. Unstable patients once every 5 minutes

VI. History-Taking

A. Obtain the Patient's Chief Complaint
    i. Brief description of the reason for summoning EMS to the scene
B. History of present illness
    i. Detailed evaluation of the chief complaint
    ii. Provides a full, clear, chronological account of the signs and symptoms

VII. Components of a Patient History

A. Statistical and Demographic

i. Obtain correct dates
ii. Accurately document all times
iii. Identifying data
    1. Age
    2. Sex
    3. Race

B. Past Medical History (pertinent to the event)

i. Medical
ii. Trauma
iii. Surgical
iv. Consider medical identification tags

C. Current health status

i. Present state of health
ii. Environmental conditions
iii. Individual factors
    1. Current medications
    2. Allergies
    3. Tobacco use
    4. Alcohol, drugs and related substances
    5. Diet
    6. Screening tests
    7. Immunizations
    8. Environmental hazards
    9. Use of safety measures (in and out of the home)
    10. Family history

D. History of the present illness

i. Location (where is it?)
ii. Onset (when did it start?)
iii. Provocation, palliative, and positioning
    1. What makes it worse?
    2. What makes it better?
    3. What position is the patient comfortable?
iv. Quality (what is it like?)
v. Radiation (does it move anywhere?)
vi. Severity
    1. Attempt to quantify the pain
    2. Utilize the scale, 1 – 10
vii. Time
    1. Duration
    2. When did it start?
    3. How long does it last?
viii. Associated signs and symptoms
ix. Pertinent negative(s)
x. For trauma patients, determine the mechanism of injury

E. Assess past medical history (pertinent to the event)

i. Pre-existing medical conditions or surgeries
ii. Medications
iii. Allergies
iv. Family history
v. Social history; travel history

F. Current health status

i. Tobacco use
ii. Use of alcohol, drugs, and other related substances
iii. Diet

VIII. Standardized Approach to History-Taking

A. SAMPLE History

i. S = Signs and symptoms
ii. A = Allergies
    1. Medication
    2. Environmental
    3. Over-the-counter medications (OTC)
iii. M = Medications
    1. OTC
    2. Prescribed
    3. Vitamins and herbal
    4. Birth control / erectile dysfunction
    5. Other people's medications
    6. Recreational drugs
iv. P = Past pertinent medical history
v. L = Last oral intake
    1. Fluids
    2. Food
    3. Other substances
vi. E = Events leading up to the illness or injury
    1. What was taking place and/or the patient doing just prior to the illness or injury?

B. OPQRST History

i. O = Onset – time the signs and symptoms started
ii. P = Provocative, palliative, and positioning
    1. What makes it worse?
    2. What makes it better?
    3. Positioning
        a. In what position is the patient found?
        b. Should the patient remain in that position?
iii. Q = Quality of the discomfort
    1. Patient's ability to describe the type of discomfort
        a. Burning
        b. Stabbing
        c. Crushing
        d. Etc.
iv. R = Radiation
    1. Does the discomfort move/radiate in any direction?
v. Severity
    1. Pain scale (0 – 10)
vi. T = Time
    1. Relating to onset, however, more definitive in regards to initial onset in the history
    2. Determine "Last Known Well" (LKW) for patients with stroke-like symptoms

IX. Age Related Variations

A. Adjust assessment techniques according to age as necessary

i. Geriatrics
    1. Obtain eye glasses and hearing aids for patient
    2. Expect history to take more time

B. Suspected child/spousal/elder abuse

i. Visually assess the scene for evidence of possible abuse
ii. Document all appropriate information and findings on the Patient Care Report (PCR)
iii. Provide written and verbal summation of findings to hospital personnel taking over care of your patient
iv. Report suspected child abuse or neglect according to the current NYS Bureau of EMS Policy Statement

X. Secondary Assessment

A. General approach

i. Assess the patient systematically
ii. Place special emphasis on areas suggested by the present illness and chief complaint
    1. Respiratory
    2. Cardiac
    3. Musculoskeletal
    4. Neurological
    5. Abdominal
    6. Etc.
iii. Maintain professionalism throughout assessment, while displaying compassion towards your patient, family, other medical professionals, and bystanders

B. Respiratory System

i. Expose the chest as appropriate for the environment
ii. Inspect chest shape and symmetry
iii. Respiratory effort
    1. Accessory muscle usage
    2. Retractions
iv. Auscultation
    1. Presence of breath sounds bilaterally
    2. Absence of breath sounds
v. Pulse oximetry continuous readings

C. Cardiovascular System

i. Pulse
    1. Rate
    2. Rhythm
    3. Predictable or unpredictable
        a. If irregular/unpredictable, extend time to obtain the number of beats per minute
    4. Strength
    5. Location
        a. Common locations
        b. Strength bilaterally
ii. Perfusion
    1. Blood pressure
        a. Medical patients should have blood pressures obtained at least every 15 minutes
        b. Trauma patients should have blood pressures obtained at least every 5 minutes
        c. Appropriate sized equipment
        d. Appropriate cuff placement
        e. Appropriate patient positioning

f. Methods of measurement
    i. Auscultation – preferred
    ii. Palpation – if unable to auscultate
g. Non-Invasive Blood Pressure Monitoring Devices
    i. Follow manufactures instructions
    ii. Be aware of possible erroneous readings and values

D. Neurological System

i. Mental status
    1. Appearance and behavior
        a. Assess level of consciousness (AVPU)
            i. Alert – time, date, place, person, etc.
            ii. Response to verbal stimuli – not "Alert", but responds to voice
            iii. Response to painful stimuli
                1. Pinching skin
                2. Sternal rub
                3. Reacts to painful interventions, i.e. fracture management or IV insertion
                4. Unresponsive – no response to verbal or painful stimuli
        b. Observe patient's posture and motor behavior
            i. Facial expressions
            ii. Speech and language
            iii. Mood to current events
            iv. Thoughts and perceptions
            v. Memory and attention

E. Musculoskeletal System

i. Pelvic region – symmetry and tenderness
ii. Upper and lower extremities – symmetry and surface findings
    1. Range of motion, sensory, motor function, circulatory function
    2. Peripheral vascular system – tenderness, temperature, distal pulses
iii. Back – symmetry, contour, surface findings, flank tenderness, spinal column tenderness

F. All Anatomical Regions

i. Head – scalp, skull, face, eyes, ears, nose, mouth and pharynx
ii. Neck
iii. Chest
    1. Inspect, auscultate and palpate
    2. Lung sounds anterior and posterior

G. Abdomen

i. Position patient for examination according to patient complaint and findings
ii. Shape and size
iii. Palpation of 4 quadrants – palpate affected area last
iv. Physical findings
    1. Symmetry
    2. Masses
    3. Organ margins
    4. Contour
    5. Softness
    6. Tenderness
    7. Findings associated with pregnancy

H. Special considerations for pediatric and geriatric patients

XI. Transport

A. Transport the patient as soon as possible to the nearest most appropriate hospital

i. Non-transporting entities should continue treating the patient according to the specific protocol, within your scope-of-practice, while waiting for ambulance transportation.
ii. Providers are responsible for knowing the resources available at hospitals and emergency departments within their local and regional jurisdiction.
iii. A Regional Emergency Medical Advisory Council (REMAC) approved destination protocol, may supersede destination protocols within this document
iv. Trauma patients
    1. Follow NYS State-Wide Protocol T – 6 regarding field triage and trauma center destination selection.
    2. Trauma Center notification / activation must occur as soon as possible, once patient destination is determined
        a. Dispatch center relaying notification from personnel on-scene;
        b. Direct radio communications from the scene.
    3. Criteria for transporting the patient to nearest hospital emergency department instead of the appropriate level Trauma Center (following protocol T – 6):
        a. Total elapsed time between the estimated time of injury and the estimated time of arrival at the appropriate level Trauma Center is more than one hour or if transport time from the scene to the appropriate level Trauma Center is more than 30 minutes ***or***
        b. The patient is in cardiac arrest ***or***
        c. The patient has an unmanageable airway ***or***
        d. An on-line medical control physician so directs
v. Stroke patients
    1. Refer to current stroke protocol, M – 17

XII. Reassessment

A. Identify and treat changes in patient's condition in a timely manor

i. Continuous monitoring of patient condition
ii. Continuous monitoring of interventions performed
iii. Identify trends in vital signs

B. Reassessment frequency

i. Unstable patients – every 5 minutes, or more often depending on patient condition
ii. Stable patients – at least every 15 minutes or as deemed appropriate by patient's condition

C. Components of reassessment

i. Primary assessment
ii. Vital signs
iii. Chief Complaint – changes or consistency
iv. Pain level
v. Interventions – additional and/or monitoring previous interventions

D. Compare to initial findings and patient's baseline

XIII. Communications and Hospital Notification

A. Hospital notification of incoming patients shall happen as soon as possible to allow the emergency department time to prepare for the patient's arrival

B. Trauma Alerts – patients meeting the criteria for transport to a NYS designated trauma center, according to NYS BLS Protocol T – 6, the destination trauma center shall be notified as early as possible. Agencies should develop procedures regarding their resources available for notification, i.e. using dispatch centers to relay alert, cellphones, VHF radios, etc.

C. Transmit the following information to the destination emergency department, at a minimum:
   i. Ambulance service identification
   ii. Estimated time of arrival to the emergency department (ETA)
   iii. Patient information:
      1. Age and sex
      2. Chief complaint
      3. Patient assessment findings, pertinent positive and negative
      4. Pertinent history as needed to clarify the problem (mechanism of injury, previous illnesses, allergies, medications, etc.)
      5. Level of consciousness and vital signs
      6. Treatment rendered and patient's response
      7. Other pertinent information

D. Notification of any delay in transport or of any unusual circumstances

E. Re-notification of any pertinent changes in the patient's condition during transport

XIV. Documentation

A. Provide a comprehensive verbal report to the responsible medical personnel accepting care of the patient at the destination.

B. Provide a written report to the responsible medical personnel accepting care of the patient at the destination. Include all pertinent patient information that pertains to the current incident, i.e. patient demographics, scene information, assessment findings, vital signs, interventions and treatment provided by EMS and bystanders, as well as any other pertinent information requested by medical personnel accepting care

C. Complete your agency New York State Prehospital Care Report (PCR) or electronic PCR prior to departing from the receiving hospital or as soon as possible (prior to the end of shift).

D. The prehospital medical record, whether paper or electronic, must be a true and accurate documentation of the response to the call, the event(s), medical assessment and reassessment, treatment and the transportation provided to the patient(s). The same is true for documenting a situation where the patient refuses medical assistance, treatment and transportation, commonly referred to as refusal of medical assistance (RMA).

E. Provide the completed PCR (paper or electronic) to the responsible emergency department personnel prior to departing from the receiving hospital or as soon as possible (prior to the end of shift).

XV. Requests for Advanced Life Support

A. Agencies should have written agreements or Memorandums of Understandings in place with those agencies they will be utilizing for ALS intercepts;
B. BLS providers must know the ALS capabilities available from each agency they utilize to determine which ALS agency is appropriate for their patient;
C. Requests for ALS should occur as soon as BLS providers determine that the patient requires ALS level of care;
D. BLS crews **MUST NOT** delay transport while waiting for ALS to arrive;
E. There are currently 4 levels of ALS in NYS. This is a synopsis of these levels, but regional variations in ALS protocol may exist:

i. Advanced Emergency Medical Technician

1. Endotracheal intubation
2. Aerosolized/nebulized Albuterol
3. Intramuscular Epinephrine and Glucagon
4. Intravenous Dextrose and Epinephrine
5. Nitroglycerin
6. Intraosseous and intravenous capabilities
7. Venous blood sampling

ii. Critical Care

1. AEMT modalities
2. Narcotic pain management
3. Similar ALS protocols as the Paramedic level

iii. Paramedic

1. All CC modalities
2. More standing orders than the CC
3. Chest tube monitoring/management
4. Needle cricothyrotomy

XVI. Requesting Air Medical Transport

A. Agencies and their EMS providers must have an understanding of what resources are available on a local and regional basis for the patient population they serve as well as procedures to obtain those resources;

B. The goal is to get the patient to the appropriate destination safely and in the least possible amount of time;

C. Requests for air medical transport should be considered when transporting a patient by ground to the appropriate facility poses a threat to the patient's survival and/or recovery;

D. The total amount of time from the time of incident to the time the patient will arrive at the appropriate destination should be considered when determining if air medical transport is necessary;

E. Patient transport should not be delayed to wait for air medical service to arrive:

F. Appropriate landing zones should be established based on local and regional procedures as well as specific requirements from the air medical services provider.

Abdominal Pain (Non-Traumatic)

I. Assess perfusion. If hypoperfusion is present, refer immediately to the hypoperfusion Protocol!

II. Place the patient in a position of comfort, usually in a face-up position with the hips elevated and knees flexed.

III. Do not administer any solids or fluids by mouth.

IV. Transport, keeping the patient warm.

V. Detailed physical exam.

VI. Obtain and record the patient's current and past medical history **after transport has been initiated**.

VII. Ongoing assessment. Obtain and record the patient's vital signs; repeat enroute as often as indicated.

VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Altered Mental Status

(including, but not limited to hypoglycemia and opioid overdose)

Assess the situation for potential or actual danger. If the scene/situation is not safe, retreat to a safe location, create a safe zone and obtain additional assistance from a police agency.

1) Perform primary assessment. Assure that the patient's airway is open and that breathing and circulation are adequate. Suction as necessary.
2) Administer high concentration oxygen. In children, humidified oxygen is preferred.
3) Obtain and record patient's vital signs, including determining the patient's level of consciousness. Assess and monitor the Glasgow Coma Scale.

Is the patient conscious? (A,V)

Yes

History of Diabetes?

No

Yes

If regionally approved and available, obtain patient's blood glucose (BG) level. If not refer to A below.

BG: **<** 60 mg/dl

BG: **>** 60 mg/dl

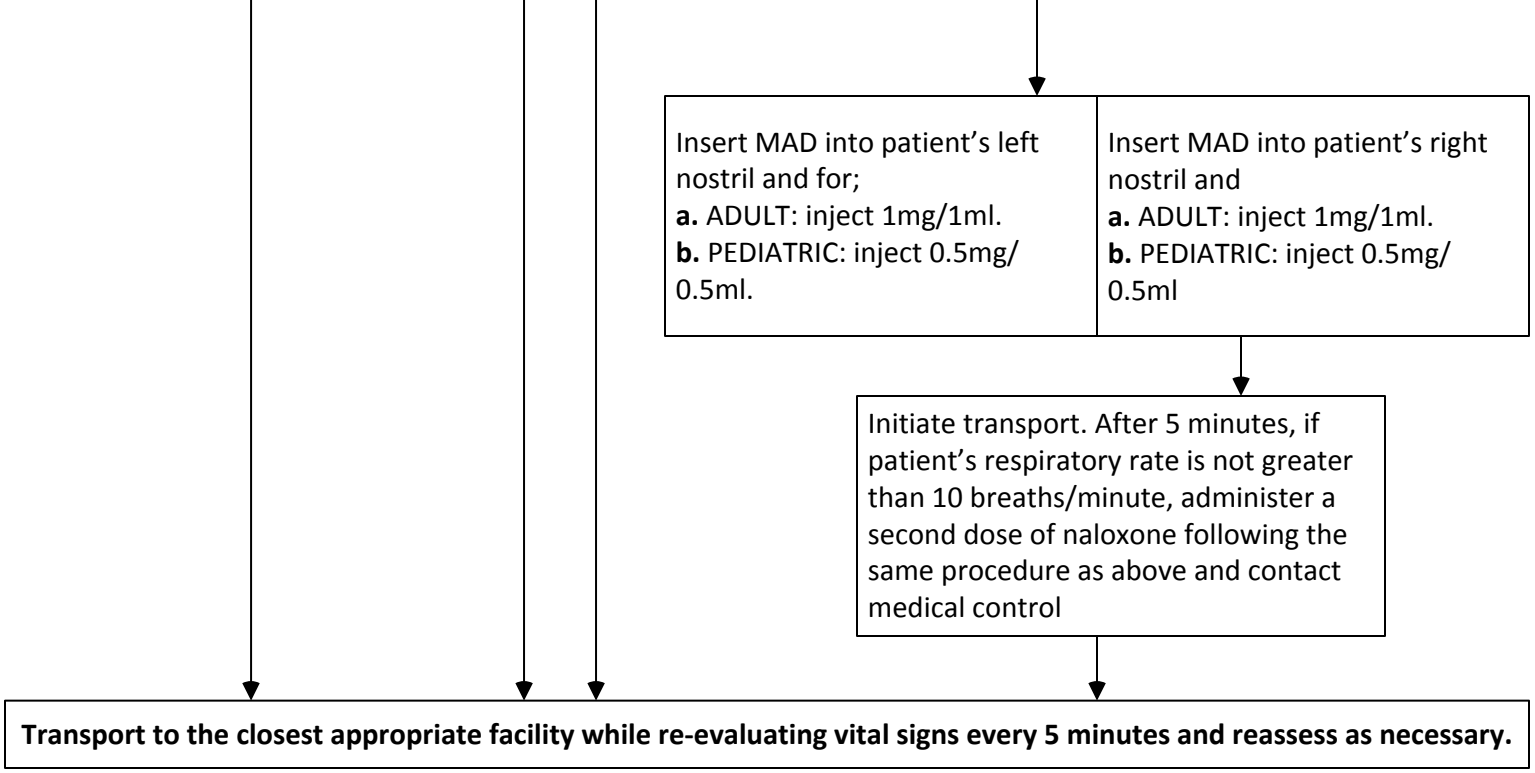
A) If the patient has a known history of diabetes controlled by medication, is conscious and is able drink without assistance, provide an oral glucose solution, fruit juice or non-diet soda by mouth.

No

If regionally approved and available, obtain patient's blood glucose (BG) level and document findings and continue transport

If patient has a suspected opioid overdose:
i. If patient does not respond to verbal stimuli, but either responds to painful stimuli or is unresponsive; and
ii. Respirations less than 10/minute and signs of respiratory failure or respiratory arrest, refer to appropriate respiratory protocol and continue with this protocol.

Administer naloxone (Narcan®) via a mucosal atomizer device (MAD). Or other Regionally approved FDA commercially prepared metered dose device**



Caution:

- **All suicidal or violent threats or gestures must be taken seriously. These patients should be in police custody if they pose a danger to themselves or others.**
- **If the patient poses a danger to themselves and/or others, summon police for assistance**.

NOTES:

- **Request Advanced Life Support if available. Do NOT delay transport to the appropriate hospital.**
- **Emotionally disturbed patients must be presumed to have an underlying medical or traumatic condition causing the altered mental status.**
- **If underlying medical or traumatic condition causing an altered mental status is not apparent; the patient is fully conscious, alert (A) and able to communicate; and an emotional disturbance is suspected, proceed to the Behavioral Emergencies protocol.**
- **This protocol is for patients who are NOT alert (A), but who are responsive to verbal stimuli (V), responding to painful stimuli (P), or unresponsive (U).**
- **** Current approved alternative FDA approved commercially prepared metered dosing units are 4mg/0.1ml and are approved for full dosing in Adult and Pediatric patients.**

Anaphylactic Reactions
With Respiratory Distress or Hypoperfusion

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. Assure that the patient's airway is open and that breathing and circulation are adequate. Suction as necessary.

II. Administer high concentration oxygen.

Note:
In pediatric patients, maintain a calm approach to both parent and child. Allow the child to assume and maintain a position of comfort or to be held by the parent/guardian, preferably in an upright position.

III. Determine that the patient has a diagnosed history of anaphylaxis, severe allergic reactions, **and/or** a recent exposure to an allergen or inciting agent.

IV. If cardiac and respiratory status is normal, transport the patient while performing frequent ongoing assessments.

V. If **either** cardiac or respiratory status are abnormal, proceed as follows:

A. If the patient is having severe respiratory distress **or** hypoperfusion **and** has been prescribed an epinephrine auto injector, ***assist*** the patient in administering the epinephrine. If the patient's auto injector is not available or is expired, and the EMS agency carries an epinephrine auto injector, ***administer*** the epinephrine as authorized by the agency's medical director.

B. If the patient has not been prescribed an epinephrine auto injector, begin transport and contact Medical Control for authorization to administer epinephrine if available.

VI. Contact Medical Control for authorization for a second administration of the epinephrine auto injector, if needed.

VII. Refer immediately to any other appropriate protocol.

VIII. If cardiac arrest occurs, perform CPR according to AHA/ARC/NSC standards and refer to the Cardiac Arrest Protocol.

IX. Transport immediately.

X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates. **Be alert for changes in the patient's level of consciousness.**

XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

XII. If epinephrine has already been administered, continue to reassess respiratory effort and vital signs, transport immediately.

Behavioral Emergencies

I. Determine whether the scene/situation is safe. If not, retreat to a safe location, create a safe zone, and obtain additional assistance from a police agency.

Note:
If regionally approved and available, contact a specialized mental health unit response team for assistance.

II. Perform initial assessment.

III. Assure that the patient's airway is open and that breathing and circulation are adequate.

IV. Consider other causes of abnormal behavior (hypoxia, hypoperfusion, hypoglycemia, etc.)

V. Place the patient in a position of comfort if possible.

VI. Attempt to establish a rapport with the patient.

VII. Restrain, ***only if necessary***, using soft restraints to protect the patient and others from harm.
Restraints should only be used if the patient presents a danger to themselves or others!

Note:
Restraints must be utilized in accordance with New York State Mental Health Law. Police or Peace Officer should be present at the scene prior to the application of restraints.

VIII. After application of restraints, keep the patient in the most appropriate position, while assuring the restraints do not restrict the patient's breathing or circulation.

IX. Transport, keeping patient warm.

X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates.

XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

XII. Document the reason for applying restraints to the patient as well as identifying the individual authorizing restraint of the patient.

Adult Cardiac Related Problem

For Cardiac related chest pain/discomfort, administer high concentration oxygen. If agency is approved by their REMAC, acquire and transmit 12 lead ECG to the receiving hospital ED while proceeding through this protocol.

Has the patient taken Aspirin?

- Yes
- No

CFR

STOP

Does the patient have their own prescribed Nitroglycerin?

Administer 324mg of nonenteric chewable Aspirin

- Yes
- No

Continue care and transport patient to most appropriate facility

Administer one (1) metered dose of Nitroglycerin spray ***or*** one (1) Nitroglycerin 0.4mg tablet under the patient's tongue without swallowing if Systolic BP is above 120mm/hg. **Transport Patient. Max: 3 Doses.**

Has pain/discomfort subsided? Or Max Doses?

- Yes
- No

Continue care and transport patient to most appropriate facility

Caution:

1.)Confirm that patient has not taken any Erectile Dysfunction medication in the last 72hrs, if yes then do not administer any Nitroglycerin

2.)Question patient on last dose administration of nitroglycerin, effects, and assure understanding of route and administration.

3.) Recheck blood pressure within two (2) minutes of administration and record any changes in the patient's condition.

4.) Each dose shall be no less than 5 minutes from the last dose given.

Note:

Request Advanced Life Support if available.

Do not delay transport to the appropriate hospital.

Be prepared to deal with respiratory and/or cardiac arrest!

I. LOCAL COLD INJURY

A. Remove the patient from the cold environment.

B. Protect the injured areas from pressure, trauma, and friction.

Caution:
Do not rub the injured areas! Do not break blisters!
Do not allow the injured areas to thaw if they may refreeze before evacuation is completed!

C. Perform initial assessment.

D. Administer high concentration oxygen.

E. Remove the clothing from the injured areas.

1. If patient has an early ***or*** *superficial* local cold injury:

    a. Remove jewelry.

    b. Splint (CFR "manually stabalize") and cover the extremity.

    c. Do not rub, massage, or expose to the cold.

2. If patient has a *late* ***or*** *deep* local cold injury:

    a. Remove jewelry.

    b. Cover the exposed area with dry dressings.

    c. Do not break blisters, rub or massage area, apply heat, rewarm, or allow the patient to walk on the affected extremity.

CFR

F. Transport, keeping the patient warm.

G. When an extremely long or delayed transport is inevitable (transport time in excess of 30 minutes) then active rapid rewarming should be done.

1. Immerse the affected part in warm water bath (not to exceed 105° F)

2. Continuously stir the water and ensure that the water does not cool from the affected part.

3. Continue until the part is soft and color and sensation return.

4. Dress the area with dry sterile dressings. If hand or foot, place dry sterile dressings between the fingers or toes.

5. Protect against refreezing the warmed part.

H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. GENERALIZED HYPOTHERMIA

A. General Treatment Guidelines:

1. Handle the hypothermic patient carefully to prevent cardiac arrest from ventricular fibrillation.

2. Remove the patient from the cold environment and protect the patient from further heat loss.

3. Do not allow the patient to walk or exert themselves.

4. Perform initial assessment.

5. Assure that the patient's airway is open and that breathing and circulation are adequate.

6. Administer high concentration oxygen. Oxygen should be warmed and humidified, if possible.

7. Assess pulses for 30 – 45 seconds. If no pulse begin CPR and refer to appropriate Cardiac Arrest protocol.

8. Place the patient in a warm, draft free environment.

9. Gently remove wet clothing.

10. Wrap the patient in dry blankets.

B. **Assess level of consciousness and refer to the appropriate sub-section below:**

1. **If the patient is alert and responding appropriately:**

a. **Actively rewarm the patient slowly:**

i. Place heat packs (if available) in the patient's groin area, lateral chest and neck.

ii. Increase heat in the patient compartment.

b. Continue rewarming the patient.

c. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

d. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

2. ***If the patient is unconscious or not responding appropriately:***

a. **Passively rewarm the patient slowly.**

Note:
Vital signs should be taken for a longer period of time than usual so as not to miss a very slow pulse or respiratory rate.

b. **If respirations and pulse are absent, start CPR. It is possible that the patient may still be revived.**

c. **If defibrillation is required, defibrillate a maximum of three shocks.**

d. Do not allow the patient to eat or drink.

e. Transport immediately.

f. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

g. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Pediatric Respiratory Distress/Failure

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

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

CROUP, if one or more of the following are present:
Low grade fever, barking cough, and/or sternal retractions.

EPIGLOTITIS, if one or more of the following are present:
High grade fever, muffled voice, and/or drooling.

Caution:
Do not attempt to visualize the child's oropharynx *or* insert anything into the mouth *or* perform stressful procedures, which could cause sudden and complete airway obstruction in these children!

I. ***If the child is in respiratory distress (signs and symptoms of respiratory distress and any of the following):***

a. Respiratory rate outside the normal range for the patient's age.
b. Cyanosis.
c. Decreased muscle tone.
d. Severe use of accessory muscles.
e. Poor peripheral perfusion and color.
f. Altered mental status.
g. Grunting.
h. Retractions.

A. Maintain a calm approach to the child and parent. **Allow the child to assume and maintain a position of comfort or to be held by the parent, preferably in an upright position.**

B. Administer high concentration oxygen (**preferably humidified) by a face mask **if tolerated without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the child's face.

C. Transport the child **calmly** in an upright and secure position (on the parent's lap only if necessary, with the parent secured to the stretcher, to avoid further agitation of the child), keeping the child warm. **Do not force the child to lie down!**

D. Ongoing assessment. Obtain and record the patient's initial vital signs, including capillary refill, **if tolerated**, and repeat enroute as often as the situation indicates, **without agitating the child**.

E. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. If the child is in respiratory arrest/failure (signs and symptoms of respiratory distress with any of the following):

a. Increased respiratory effort at sternal notch.
b. Breathing at less than 10 breaths/minute.
c. Retractions.
d. Head bobbing.
e. Grunting.
f. Severe use of accessory muscles.
g. Absent or shallow chest wall motion.
h. Limp muscle tone.
i. Changes in mental status.
j. Slow or absent heart rate.
k. Poor perfusion and/or skin color.
l. Altered mental status.

A. Open the child's airway with the head-tilt/chin-lift maneuver if no trauma is suspected. Use the modified jaw thrust maneuver if head, neck, or spinal trauma is suspected.

B. Ventilate the child at a rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure that the chest rises with each ventilation.**

C. Supplement ventilations with high concentration oxygen.

Caution:
Adequate ventilation may require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

D. Transport, keeping the child warm.

E. Ongoing assessment. Obtain and record the patient's initial vital signs, including capillary refill, and repeat enroute as often as the situation indicates.

Caution:
If progressive bradycardia, delayed capillary refill (greater than 2 seconds) and cyanosis – signs of impending cardiac arrest are present, be prepared to initiate the Non-Traumatic Cardiac Arrest Protocol.

F. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Heat Emergencies

I. Patients presenting with moist, pale, normal to cool skin temperature:

A. Perform initial assessment.

B. Assure that the patient's airway is open and that breathing and circulation are adequate.

C. Remove the patient from the heat source and place in a cool environment.

D. Administer high concentration oxygen.

E. Loosen or remove outer clothing.

F. Place patient in the supine position with legs elevated.

G. Transport the patient immediately.

H. Cool the patient by removing excess clothing and fanning the patient.
Do not delay transport to cool the patient!

1. ****If the patient is conscious, is not nauseated, and is able to drink without assistance,** have the patient drink water (if available).

2. ****If the patient is unconscious or is vomiting,** transport to the hospital with the patient positioned on their left side.

I. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

J. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. Patients presenting with hot, dry or moist skin:

A. Perform initial assessment.

B. Remove the patient from the heat source and place in a cool environment.

C. Remove outer clothing.

D. Apply cool packs to neck, groin, and armpits.

E. Keep patient's skin wet by applying wet sponges or towels.

F. Fan the patient aggressively.

G. Transport immediately.

H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Adult Obstructed Airway

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. ***If the patient is conscious and can breathe, cough or speak, do not interfere!*** *Encourage the patient to cough.* ***If the foreign body cannot be dislodged by the patient coughing:***

A. Administer high concentration oxygen.

B. Transport in a sitting position, keeping the patient warm.

C. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. **If the patient is conscious with signs of severe airway obstruction (i.e. signs of poor air exchange and increased breathing difficulty, such as a silent cough, cyanosis, or inability to speak or breathe),** perform obstructed airway maneuvers according to AHA/ARC/NSC guidelines.

III. ***If the airway obstruction persists after two sequences of obstructed airway maneuvers and/or the patient becomes unconscious:***

Caution:
If obstructed airway is traumatic, manually stabilize the head and cervical spine in a neutral position while opening the patient's airway using the jaw-thrust maneuver, and transport the patient without delay!
Continue to attempt removal of the airway obstruction while enroute to the hospital.

A. Begin CPR .

B. Transport, keeping the patient warm..

C. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

Updated 08/01/2006

D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

IV. If the airway obstruction is cleared and the patient resumes breathing:

A. Administer high concentration oxygen.

B. Transport, keeping the patient warm.

C. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

D. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Pediatric Obstructed Airway

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. ***Partial Airway Obstruction – If the child is alert and can breathe, cough, cry or speak:***

A. **Do not interfere, and do not perform BLS airway maneuvers! Allow the child to assume and maintain a position of comfort or to be held by the parent, preferably in an upright position. Do not lay the child down.**

B. Administer high concentration oxygen (preferably humidified) by a face mask, **if tolerated without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the patient's face.

C. Transport immediately, keeping the child warm.

D. Ongoing assessment. Obtain and record the patient's initial vital signs, including capillary refill, **if tolerated**, repeat enroute as often as the situation indicates, **without agitating the child**. Limit your exam and do not assess blood pressure.

E. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. **If the child is conscious but cannot breath, cough, speak, or cry,** perform obstructed airway maneuvers according to AHA/ARC/NSC guidelines.

Caution:
Agitating a child with a partial airway obstruction could cause complete obstruction! As long as the child can breathe, cough, cry, or speak, do not upset the child with unnecessary procedures (e.g., blood pressure determination)!
Use a calm, reassuring approach, transporting the parent and child securely as a unit.

III. **If the child is unconscious, becomes unconscious and is not breathing:**

A. Attempt to establish airway control using BLS techniques. Open the child's mouth, and remove any **visible** foreign body.

B. Begin CPR according to AHA/ARC/NSC guidelines and transport immediately.

IV. ***Immediately upon removal of the foreign body and/or establishment of chest rise in a child of any age (including infants), assess the child's ventilatory status!***

Caution:
If signs of impending cardiac arrest are present (i.e., progressive bradycardia, delayed capillary refill [greater than 2 seconds] and cyanosis), be prepared to initiate the non-traumatic cardiac arrest protocol!

1. **If the ventilatory status is inadequate (the child is cyanotic, the respiratory rate is low for the child's age or capillary refill is greater than 2 seconds):**

   a. Ventilate at the rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure there is adequate chest rise with each ventilation given over one second**.

Caution:
Adequate ventilation may require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

   b. Supplemental ventilations with high concentration oxygen.

   c. Transport, keeping the child warm.

   d. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

   e. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report.

2. ***If the ventilatory status is adequate (i.e., the child is breathing spontaneously, the respiratory rate is appropriate for the child's age, cyanosis is absent, and capillary refill is less or equal to 2 seconds):***

a. Administer high concentration oxygen (preferably humidified) by a face mask, **if tolerated, without agitating the child!** Administration of oxygen may best be accomplished by allowing the parent to hold the face mask about 6 – 8 inches from the patient's face.

b. Transport, keeping the child warm.

c. Ongoing assessment. Obtain and record the patient's vital signs, including capillary refill, **if tolerated**, repeat enroute as often as the situation indicates, **without agitating the child**.

d. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Poisoning

Caution:
Take precautions not to contaminate self or others!

I. General Approach

A. If possible, identify the product or substance that the patient has ingested, inhaled or come in contact with.

B. Estimate the amount of product or substance ingested, if applicable.

C. Estimate the duration of exposure to the product or substance.

D. Attempt to obtain information about the product from the container's label. If possible, bring the product or substance and it's container with the patient to the hospital.

II. **Patient who is conscious and alert,** perform an initial assessment and:

Caution:
Poisoned patients may deteriorate rapidly.
Be especially alert for respiratory insufficiency or arrest!
Consider calling Advanced Life Support if available.

A. Swallowed Poisons:

1. Administer oxygen.

2. **Contact Medical Control for instructions on treatment, which may include the administration of Activated Charcoal, milk, water, and/or Syrup of Ipecac for the induction of vomiting, etc.

3. Transport, keeping the patient warm.

4. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as indicated.

5. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

B. **Inhaled Poisons:**

1. Assure that the scene is safe for entry. If danger of poisonous gases, vapor, or sprays or an oxygen-deficient environment is present, it may be necessary to obtain assistance from trained rescue personnel.

2. Remove the patient to fresh air.

3. Perform initial assessment.

4. Assure that the patient's airway is open and breathing and circulation are adequate.

5. Place the patient in a position of comfort.

6. Administer high concentration oxygen.

7. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

8. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

C. ***Skin or Eye(s) Contamination:***

1. Refer to the **Burns/Contaminations (Chemical) Protocol).**

III. ***Patient who is unconscious or has altered mental status:***

A. Perform initial assessment.

B. Assure that the patient's airway is open and that breathing and circulation are adequate; suction as necessary.

C. Administer high concentration oxygen.

D. Ongoing assessment. Obtain and record the vital signs, repeat enroute as often as the situation indicates.

E. Transport, keeping the patient warm.

F. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Adult Respiratory Arrest/Failure (Non-Traumatic)

Note:
Determine if the patient has a Do Not Resuscitate (DNR) order. Treatment must not be delayed while making this determination.

Note:
Request Advanced Life Support if available. Do not delay transport to the appropriate hospital.

I. Perform initial assessment.

II. ***If ventilatory status is inadequate, (patient is cyanotic, visible retractions, severe use of accessory muscles, altered mental status, respiratory rate less than 10 breaths per minute, signs of poor perfusion) proceed with positive pressure ventilations as follows.***

III. Insert an oropharyngeal airway if tolerated (i.e., no gag reflex). Provide BLS care according to AHA/ARC/NSC standards. **If ventilations are unsuccessful, refer immediately to the Obstructed Airway Protocol. If the patient is in cardiac arrest refer immediately to the appropriate Cardiac Arrest Protocol.**

IV. Ventilate with supplemental oxygen.

V. Transport **immediately**, keeping the patient warm.

VI. Ongoing assessment including the effectiveness of the ventilations/compressions.

VII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Caution:
Patients with airway obstruction or poor lung compliance *may* require high pressures to be properly ventilated, which can be achieved by disabling the pressure-relief valve of the BVM.

Rates of Ventilations

Adults: Ventilate every 5 – 6 seconds without an advanced airway in-place and every 6 – 8 seconds if CPR is ongoing and an advanced airway in-place. Each breath is given over 1 second causing visible chest rise.

Pediatric Respiratory Arrest/Failure (Non-Traumatic)

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. Establish airway control and ventilations using BLS techniques according to AHA/ARC/NSC guidelines.

A. Open the airway using the head-tilt/chin-lift or jaw-thrust maneuver.

Caution:
If signs of impending cardiac arrest (i.e., progressive bradycardia, delayed capillary refill [greater than 2 seconds], cyanosis and limp muscle tone), be prepared to initiate the appropriate Cardiac Arrest Protocol!

B. Remove any **visible** airway obstruction by hand and clear the airway of any accumulated secretions or fluids by suctioning.

II. **Immediately** determine if the child is breathing adequately.

A. ***If the ventilatory status is inadequate (the child is cyanotic, visible retractions, grunting, head bobbing, severe use of accessory muscles, altered mental status, the respiratory rate is low for the child's age, capillary refill is greater than 2 seconds, muscle tone is limp, a slow or fast heart rate, or other signs of inadequate perfusion):***

1. Insert a properly sized oropharyngeal airway if the gag reflex is absent. If a gag reflex is present insert a nasopharyngeal airway.

2. Determine if the patient needs positive pressure ventilations. If no, use supplemental oxygen and maintain airway. If yes, maintain airway, give positive pressure ventilations and supplemental oxygen.

3. Ventilate (with high concentration oxygen) at a rate appropriate for the child's age using a pocket mask or bag-valve-mask. **Assure there is adequate chest rise with each ventilation.**

Caution:
Adequate ventilation *may* require disabling the pop-off valve if the bag-valve-mask unit is so equipped. BVM must have a volume of at least 450 – 500 ml for newborns and infants

Rates of Ventilations

Infants and children: Every 3 – 5 seconds without an advanced airway in-place and every 6 – 8 seconds with an advanced airway in-place, each breath given over 1 second, causing visible chest rise.

III. Identify and correct any other life-threatening conditions found during the initial assessment.

IV. Transport, keeping the child warm.

V. Ongoing assessment including effectiveness of ventilations.

VI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Cardiac Arrest
Adult and Pediatric
(Non – Traumatic)

Note:
Determine if the patient has a Do Not Resuscitate (DNR) order.
Treatment must not be delayed while making this determination.

Request Advanced Life Support if available. Do not delay transport to the hospital.

I. If patient is unresponsive and pulseless, begin Cardiopulmonary Resuscitation as per current AHA/ARC/NSC guidelines.

DO NOT DELAY BEGINNING COMPRESSIONS TO BEGIN VENTILATIONS – COMPRESSIONS MUST BEGIN AS SOON AS IT IS DETERMINED THE PATIENT DOES NOT HAVE A PULSE

A. Artificial ventilation and/or compressions **must not be delayed** to attach supplemental oxygen. Initial ventilations without supplemental oxygen should be used until supplemental oxygen can be attached.

i. Deliver each breath over 1 second.

ii. Give sufficient tidal volume to produce visible chest rise.

iii. Avoid rapid or forceful ventilations.

iv. When an advance airway is in-place with 2 person adult CPR, ventilations are to be given at a rate of one breath every 6-8 seconds without attempting synchronization between compressions. **Do not pause compressions for delivery of ventilations.**

II. During application of the AED:

A. The AED should be applied to the patient as soon as it is available and without interrupting compressions.

B. Assure proper application and adhesion of the pads to the patient's chest.

C. If present, remove Nitroglycerin medication patch from the patient's chest.

i. When in doubt of the type of medication patch the patient has on their chest, remove the patch

ii. Assure that patient's medication patch does not come in contact with your skin (wear appropriate PPE).

iii. Assure proper disposal of the medication patch at the Emergency Department through use of properly identified biohazard bags.

III. Once the AED has analyzed the patient's rhythm, follow the voice prompts to either "check patient" or administer a "shock".

A. Pediatric patients under the age of 8 should be defibrillated using an AED equipped for and approved by the FDA for use on children.

i. In an emergency situation where an AED equipped for use on children is unavailable, an adult AED unit can be used.

IV. After the first and all subsequent defibrillations immediately begin CPR (approximately 2 minutes), without checking for a pulse, before the next rhythm check and/or defibrillation. Do not check for a pulse or rhythm after defibrillation until CPR has been completed (approximately every 2 minutes) ***or*** the patient appears to no longer be in cardiac arrest.

V. All actions and procedures occurring during a cardiac arrest should be accomplished in a way that minimizes interruptions of chest compressions.

VI. Transport to the Emergency Department:

A. A maximum of 3 defibrillations may be delivered at the scene prior to initiating transport. If transportation is unavailable, continue your AED/CPR sequence until transportation is available.

B. If the AED advises that no shock is indicated, initiate transport with rhythm checks by the AED occurring approximately every 2 minutes.

C. During transport, the AED should perform rhythm checks approximately every 2 minutes with as few interruptions of chest compressions as possible.

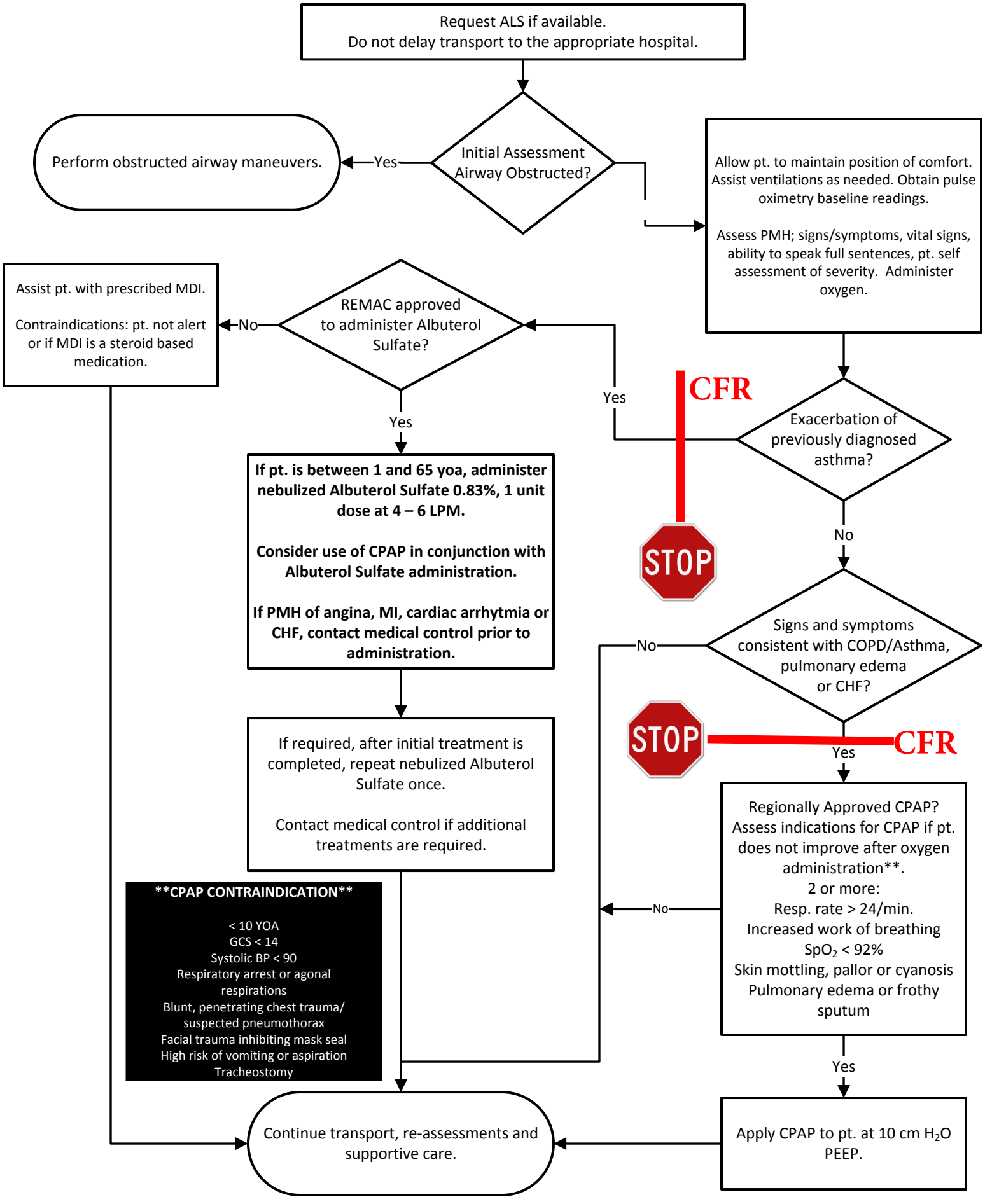
VII. If patient is no longer in cardiac arrest, complete an initial assessment, support airway and breathing, place patient in the recovery position, obtain vital signs, and treat according to appropriate protocol while continuing transport.

A. If pt remains unresponsive with vital signs they may benefit from therapeutic hypothermia and medical control should be contacted to determine appropriate transportation destination.

VIII. Record all patient care information, including the patient's medical history and all treatment provided (including the total number of defibrillations administered), on a Prehospital Care Report (PCR).

Adult Respiratory Distress

(non-traumatic/non-pneumothorax)



Seizures

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. Management of the patient who is seizing:

A. Protect the patient from harm, **and** remove hazards from the patient's immediate area, **and** avoid unnecessary physical restraint.

B. Perform initial assessment.

C. Assure that the patient's airway is open, and that breathing and circulation are adequate.

D. Suction the airway as needed. Avoid stimulation of the posterior pharynx during suctioning because this may cause vomiting.

Caution:
If the patient's ventilatory status is inadequate (cyanosis, low respiratory rate for the patient's age, decreased tidal volume, retractions, nasal flaring, agonal or irregular respirations), initiate the respiratory arrest/failure protocol.

E. Position the patient on their side if no possibility of cervical spine trauma.

Note:
Do not force the patient's mouth open or force an oral airway or any other device into the patient's mouth if it is clenched tightly during the seizure!
A nasopharyngeal airway may be used.

F. Administer high concentration oxygen.

G. Transport immediately, keeping the patient warm.

H. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

I. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

II. **Management of the post-seizure patient:**

A. Perform initial assessment.

B. Assure that the patient's airway is open and that breathing and circulation are adequate.

C. Suction the airway as needed. Avoid stimulation of the posterior pharynx during suctioning because this may cause vomiting.

D. Position patient on their side if no possibility of cervical spine trauma.

E. Administer high concentration oxygen.

F. Treat injuries sustained during the seizure.

G. Be prepared for additional seizures.

H. Transport keeping the patient warm.

I. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

J. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Suspected Stroke
(Stroke)

Note:
This protocol is for patients who have an acute episode of neurological deficit without any evidence of trauma.

Note:
Request Advanced Life Support if available.
Do not delay transport to the nearest appropriate hospital.

I. Perform initial assessment.

II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
Consider other causes of altered mental status, i.e. hypoxia, hypoperfusion, hypoglycemia, trauma or overdose.

III. Administer high concentration oxygen, suction as necessary, and be prepared to assist ventilations.

IV. Position patient with head and chest elevated or position of comfort, unless doing so compromises the airway. **CFR**

V. Perform Cincinnati Pre-Hospital Stroke Scale:

A. Assess for facial droop: have the patient show teeth or smile,

B. Assess for arm drift: have the patient close eyes and hold both arms straight out for 10 seconds,

C. Assess for abnormal speech: have the patient say, "you can't teach an old dog new tricks".

VI. If the findings of the Cincinnati prehospital stroke scale are positive, establish onset of signs and symptoms by asking the following:

A. To patient – "When was the last time you remember before you became weak, paralyzed, or unable to speak clearly?"

B. To family or bystander – "When was the last time you remember before the patient became weak, paralyzed, or unable to speak clearly?"

VII. Transport of patient's with signs and symptoms of stroke to the appropriate hospital:

A. Transport the patient to the closest New York State Department of Health designated Stroke Center if the total prehospital time (time from when the patient's symptoms and/or signs first began to when the patient is expected to arrive at the Stroke Center) is less than two (2) hours.

B. Transport the patient to the closest appropriate hospital emergency department (ED) if:

1. The patient is in cardiac arrest, ***or***

2. The patient has an unmanageable airway, ***or***

3. The patient has (an) other medical condition(s) that warrant(s) transport to the closest appropriate hospital emergency department (ED) as per protocol, ***or***

4. The total prehospital time (time from when the patient's symptoms and/or signs first began to when the patient is expected to arrive at the Stroke Center) is greater than two (2) hours, ***or***

5. An on-line medical control physician so directs.

VIII. Maintain normal body temperature; do not overly warm the patient.

IX. Protect any paralyzed or partially paralyzed extremities.

X. Ongoing assessment. Obtain and record the patient's initial vital signs, repeat enroute as often as the situation indicates.

XI. Notify the receiving hospital as soon as possible of your impending arrival with an acute stroke patient, Cincinnati Stroke Scale findings, and time signs and symptoms began.

XII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Trauma Protocols

Amputation

I. Perform initial assessment.

II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
Manually stabilize the head and cervical spine if trauma of the head and/or neck is suspected!

III. Place the patient in a position of comfort **only if doing so does not compromise stabilization of the head and cervical spine!**

IV. Control the bleeding according to Protocol T - 2

V. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol, T - 2!**

VI. Wrap the stump with moist sterile dressings.

VII. Cover the dressed stump with a dry bandage.

VII. Preserve the amputated part as follows:

A. Moisten an appropriately sized sterile dressing with sterile saline solution.

B. Wrap the severed part in the moistened sterile dressing, preserving all amputated material.

C. Place the severed part in a water-tight container (i.e. sealed plastic bag).

D. Place the container on ice or cold packs (if available). **Do not freeze or use dry ice! Do not immerse the amputated part directly in water! Do not allow the amputated part to come in direct contact with ice!**

XI. CFR manually stablize, EMT immobilize the limb to prevent further injury.

XII. Transport the amputated part with the patient.

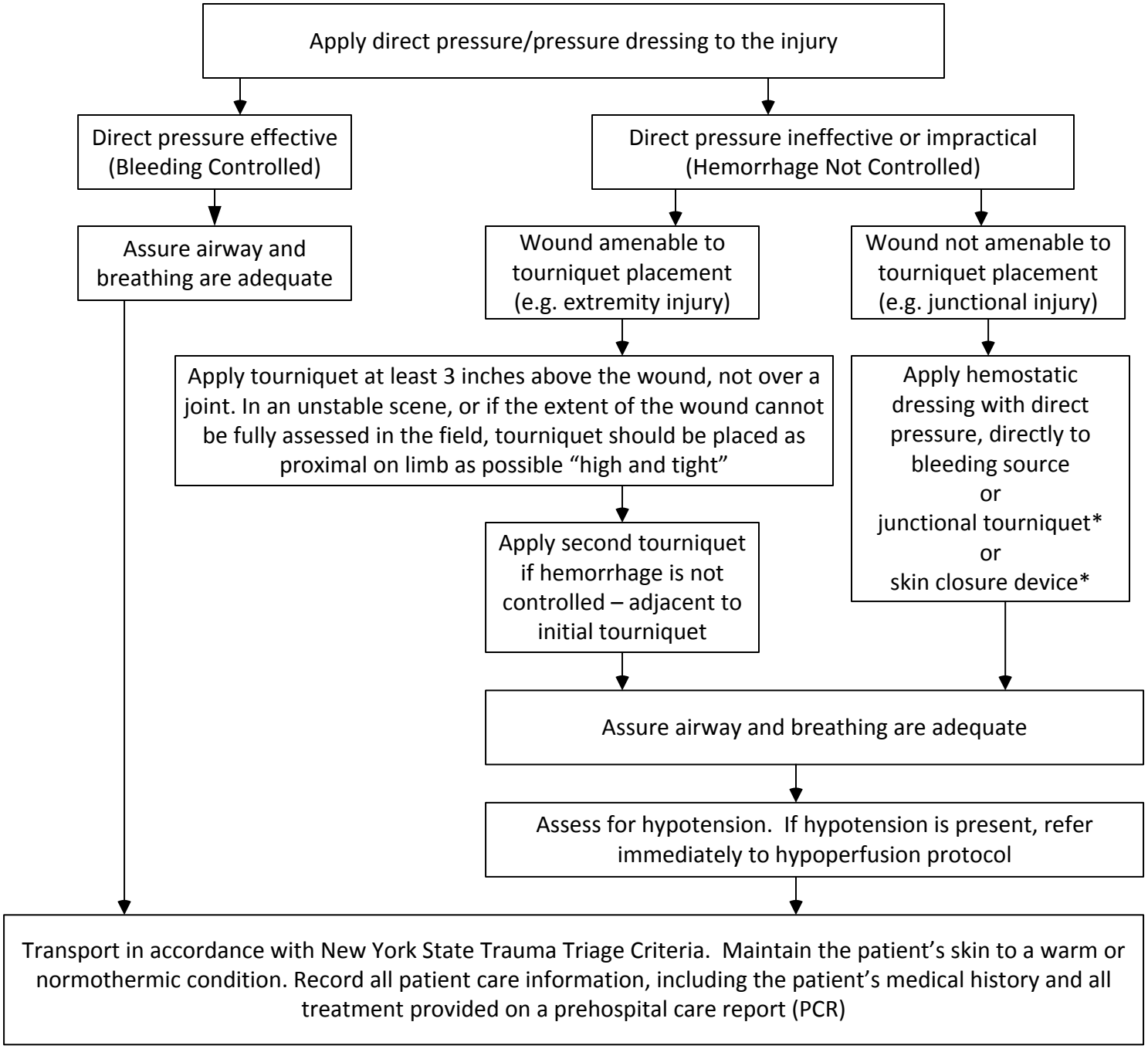
Note:
Transportation of the patient should not be delayed to search for amputated parts! Leave word as to the patient's destination, and indicate how to preserve the amputated parts to the person in charge at the scene.

XIII. Transport keeping the patient warm.

XIV. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

XV. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Prehospital Bleeding/External Hemorrhage Control Protocol



*** Regional option may include the use of Junctional Tourniquet and/or cutaneous closure devices in accordance with directions for its use, and Medical Director authorization.**

If a tourniquet is placed, an alert patient may require narcotic analgesia to manage tourniquet-associated discomfort. Consider use of regionally approved pain management protocols including ALS intercept.

Hemodialysis access sites may result in life threatening hemorrhage. Direct digital pressure should be used first followed by tourniquet in the setting of life threatening hemorrhage when other means of hemorrhage control have been unsuccessful.

Burns
(Chemical)

I. Assure that the scene is safe for entry. If danger of contamination is present, it may be necessary to obtain assistance from trained rescue personnel.

II. Perform initial assessment.

III. Assure that the patient's airway is open and that breathing and circulation are adequate.

IV. Treat according to the following:

A. ***IF THE CHEMICAL IS A LIQUID:***

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. There should be no contaminated clothing or jewelry on the victim. If contaminated items are present, notify the decontamination personnel. Flush the decontaminated areas with copious amounts of water at the scene and enroute to the hospital. If possible, flush site of the burn with water for a minimum of 20 minutes.

B. ***IF THE CHEMICAL IS A DRY POWDER:***

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. Brush any remaining chemical off of the patient. **Be careful not to spread it over unaffected areas**. There should be no contaminated clothing or jewelry on the victim. If contaminated items are present notify the decontamination personnel. Flush the decontaminated areas with copious amounts of water at the scene and enroute to the hospital. If possible, flush site of the burn with water for a minimum of 20 minutes.

C. ***IF THE EYE(s) IS CONTAMINATED:***

The patient you receive in your **safe zone** should already be decontaminated. Always check to assure that decontamination has been completed. Irrigate the eye(s) with saline solution or water continuously for at least 20 minutes, or until arrival to the hospital, while the patient blinks frequently during irrigation. If only one eye is affected, do not contaminate the unaffected eye. After irrigation is complete, cover ***both*** eyes with moistened dressings or eye pads.

V. Obtain the name of the product or substance involved and bring it and it's container (if possible and without causing further contamination with the substance) with the patient to the hospital

VI. Transport keeping the patient warm.

Note:
Follow regional protocol for transportation of burn patient to a Burn Center.

VII. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

VIII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Burns
(Thermal/Electrical)

I. Assure that the scene is safe for entry. If danger of contamination is present, it may be necessary to obtain assistance from trained rescue and/or fire personnel.

II. Extinguish burning clothing, and stop the burning process.

III. Perform initial assessment.

IV. Assure that the patient's airway is open and that breathing and circulation are adequate.

V. Place the patient in a position of comfort **only if doing so does not compromise stabilization of the head and cervical spine!**

VI. Administer high concentration oxygen if indicated during the initial assessment ***or*** if respiratory burns are suspected and in all burns involving flames, exposure to superheated gases or when patient is found in a confined area.

VII. Remove smoldering clothing not adhering to the patient's skin. Remove rings, bracelets and all other constricting items if possible. **Do not delay transport to remove these items!**

VIII. Assess for hypoperfusion. **If hypoperfusion is present, refer immediately to the hypoperfusion protocol!**

IX. **For all burns** determine the thickness and percent of body surface area. Treat as follows:

A. ***Partial thickness burns covering 10% or less of total body surface area:*** Apply moistened sterile dressings or moistened burn sheets to the burned area(s).

Note:
Do not puncture unbroken blisters!
Do not apply any type of ointment!

B. **Full thickness burns and burns covering more than 10% of body surface area:** Apply dry sterile dressings or burn sheets to the burned area(s).

X. Transport immediately, keeping the patient warm. **This is important since these patients tend to lose heat and become hypothermic!**

Note:
Follow regional protocol for transportation of a burn patient to a Burn Center.

XI. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

XII. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

Musculoskeletal Trauma

I. Perform initial assessment.

II. Assure that the patient's airway is open and that breathing and circulation are adequate.

Caution:
Manually stabilize the head and cervical spine if trauma of the head and/or neck is suspected!

III. Manually stabilize the joints above and below the suspected injury site.

IV. Evaluate and record the pulse(s), motor and sensory functions distal to the suspected injury site before splinting.

Note:
Consider any open wound near a suspected bone injury site to be the result of bone protrusion.

V. Expose the injured area to locate and identify suspected musculoskeletal injuries.

VI. Assess for bleeding and hypoperfusion. **If present, refer immediately to protocol T - 2.**

VII. CFR stabilize and place ice packs at injury site. EMT: splint the bone injury, keeping the following guidelines in mind:

CFR

Long Bone Injuries:

A. If the long bone is severely deformed ***or*** the distal extremity is cyanotic ***or*** lacks pulses, align the long bone by applying gentle manual traction prior to splinting. If resistance is encountered, the extremity should be splinted in the deformed position.

B. Apply the appropriate immobilizing device to assure the joint above and the joint below the injury site are immobilized.

C. Reassess pulse, motor and sensory function distal to the injury site.

Joint Injuries:

A. An injured joint should be immobilized in the position in which it was found **unless** the portion of the extremity distal to the site of the injury is cyanotic and/or lacks pulses and no resistance is met when straightening the extremity.

B. Apply the appropriate immobilizing device to assure the bones above and below the injury site are immobilized.

C. Reassess pulse, motor and sensory function distal to the injured joint.

Traction Splinting Devices:

A. Indications for the use of a traction splint are a painful, swollen, deformed mid-thigh injury with no joint or lower leg injuries.

B. Contraindications for the use of a traction splint:
   1. Injury is close to the knee
   2. Injury to the knee
   3. Injury to the hip
   4. Injury to the pelvis
   5. Partial amputation or avulsion with bone separation
   6. Injury to the lower leg or ankle

VIII. If the patient is hypotensive, an unstable pelvis should be splinted with the MAST (if available and regionally approved[1]) according to the **hypoperfusion protocol**.

IX. Transport the patient in a position of comfort, keeping the patient warm.

X. Ongoing assessment. Obtain and record the patient's vital signs, including the status of the pulses, motor and sensory function distal to the injury site, and repeat enroute as often as the situation indicates.

XI. Record all patient care information, including the patient's medical history and all treatment provided, on a Prehospital Care Report (PCR).

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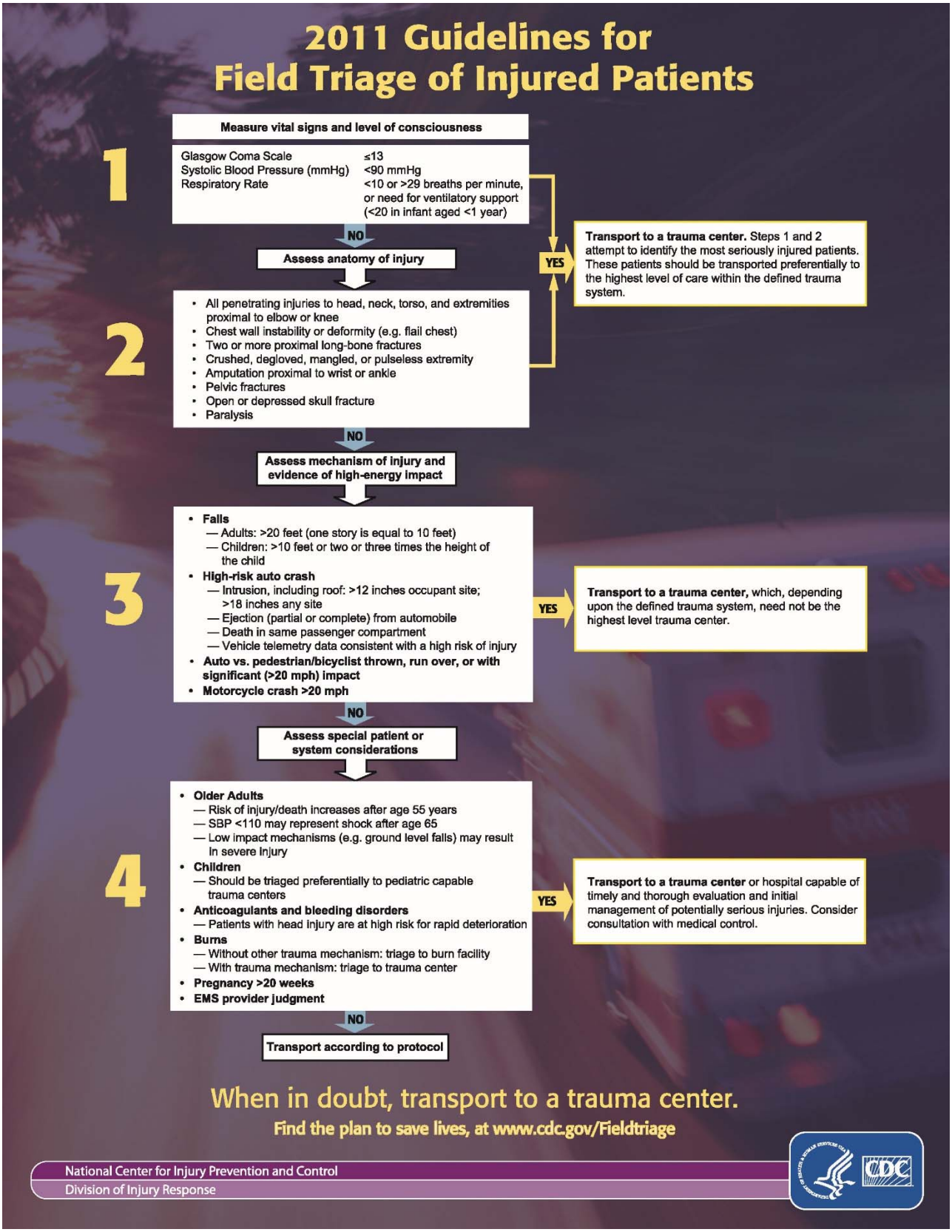
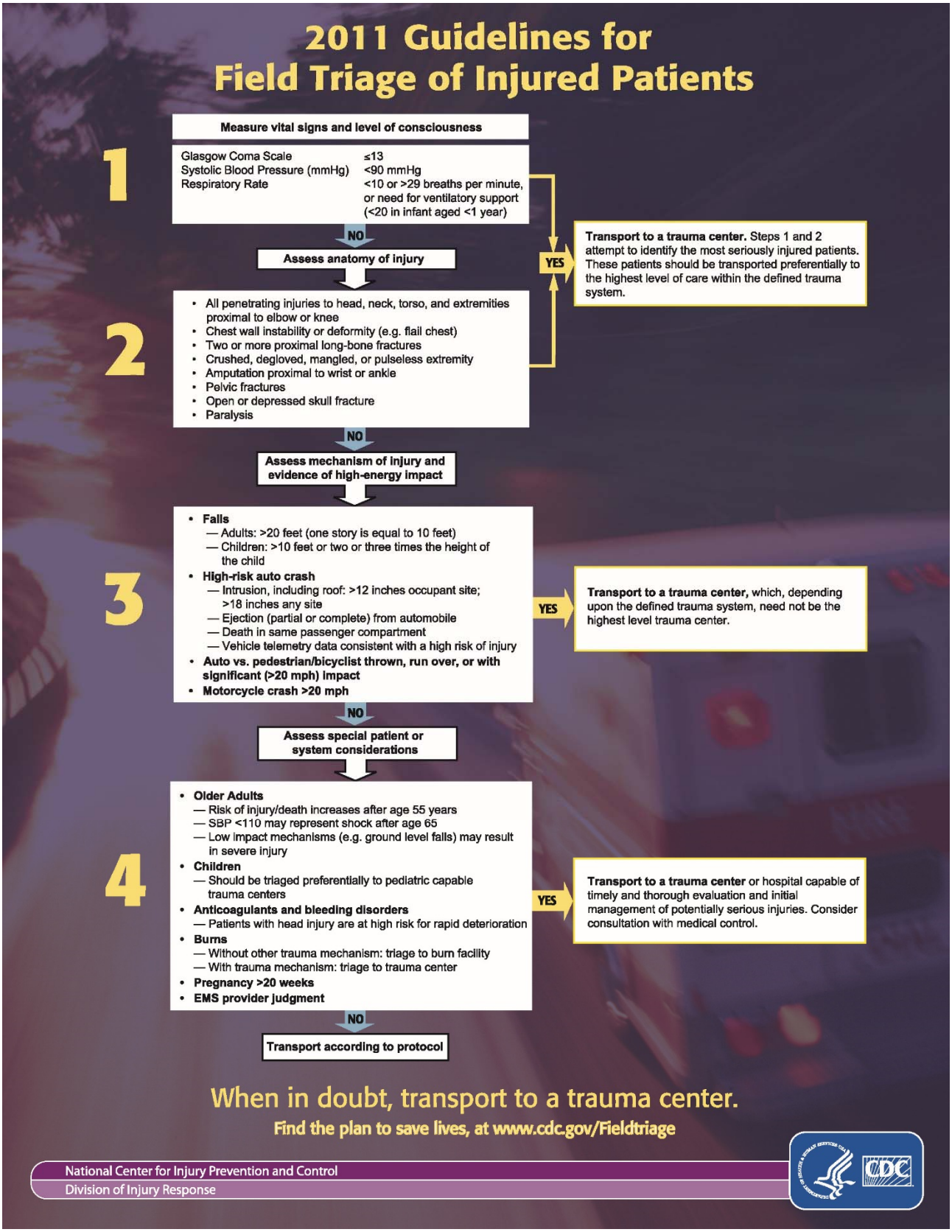
1 "Regionally Approved" means approved by the appropriate Regional Emergency Medical Advisory Committee (REMAC) for use in that region


2011 Guidelines for
Field Triage of Injured Patients
1
Measure vital signs and level of consciousness
Glasgow Coma Scale ≤13
Systolic Blood Pressure (mmHg) <90 mmHg
Respiratory Rate <10 or >29 breaths per minute, or need for ventilatory support (<20 in infant aged <1 year)
NO
Assess anatomy of injury
YES
Transport to a trauma center. Steps 1 and 2 attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the defined trauma system.
2
All penetrating injuries to head, neck, torso, and extremities proximal to elbow or knee
Chest wall instability or deformity (e.g. flail chest)
Two or more proximal long-bone fractures
Crushed, degloved, mangled, or pulseless extremity
Amputation proximal to wrist or ankle
Pelvic fractures
Open or depressed skull fracture
Paralysis
NO
Assess mechanism of injury and evidence of high-energy impact
3
Falls
— Adults: >20 feet (one story is equal to 10 feet)
— Children: >10 feet or two or three times the height of the child
High-risk auto crash
— Intrusion, including roof: >12 inches occupant site; >18 inches any site
— Ejection (partial or complete) from automobile
— Death in same passenger compartment
— Vehicle telemetry data consistent with a high risk of injury
Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
Motorcycle crash >20 mph
YES
Transport to a trauma center, which, depending upon the defined trauma system, need not be the highest level trauma center.
NO
Assess special patient or system considerations
4
Older Adults
— Risk of injury/death increases after age 55 years
— SBP <110 may represent shock after age 65
— Low impact mechanisms (e.g. ground level falls) may result in severe injury
Children
— Should be triaged preferentially to pediatric capable trauma centers
Anticoagulants and bleeding disorders
— Patients with head injury are at high risk for rapid deterioration
Burns
— Without other trauma mechanism: triage to burn facility
— With trauma mechanism: triage to trauma center
Pregnancy >20 weeks
EMS provider judgment
YES
Transport to a trauma center or hospital capable of timely and thorough evaluation and initial management of potentially serious injuries. Consider consultation with medical control.
NO
Transport according to protocol
When in doubt, transport to a trauma center.
Find the plan to save lives, at www.cdc.gov/Fieldtriage
National Center for Injury Prevention and Control
Division of Injury Response
CDC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NO
YES
Transport to a trauma center. Steps 1 and 2 attempt to identify the most seriously injured patients. These patients should be transported preferentially to the highest level of care within the defined trauma system.
2
Assess anatomy of injury
• All penetrating injuries to head, neck, torso, and extremities proximal to elbow or knee
• Chest wall instability or deformity (e.g. flail chest)
• Two or more proximal long-bone fractures
• Crushed, degloved, mangled, or pulseless extremity
• Amputation proximal to wrist or ankle
• Pelvic fractures
• Open or depressed skull fracture
• Paralysis
NO
3
Assess mechanism of injury and evidence of high-energy impact
• Falls
— Adults: >20 feet (one story is equal to 10 feet)
— Children: >10 feet or two or three times the height of the child
• High-risk auto crash
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— Ejection (partial or complete) from automobile
— Death in same passenger compartment
— Vehicle telemetry data consistent with a high risk of injury
• Auto vs. pedestrian/bicyclist thrown, run over, or with significant (>20 mph) impact
• Motorcycle crash >20 mph
YES
Transport to a trauma center, which, depending upon the defined trauma system, need not be the highest level trauma center.
NO
4
Assess special patient or system considerations
• Older Adults
— Risk of injury/death increases after age 55 years
— SBP <110 may represent shock after age 65
— Low impact mechanisms (e.g. ground level falls) may result in severe injury
• Children
— Should be triaged preferentially to pediatric capable trauma centers
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NO
Transport according to protocol
When in doubt, transport to a trauma center.
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National Center for Injury Prevention and Control
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Suspected Spinal Injuries

Does the patient meet Adult/Pediatric Major Trauma Criteria with a BLUNT mechanism of injury? (T-6,T-7)

Yes

No

If the patient does not meet Major Trauma Criteria for Blunt Mechanism and/or does for Penetrating Mechanism, does the patient have any of the following:

1. Altered mental status – Associated with trauma - for any reason including possible intoxication from alcohol or drugs (GCS<15)
2. Complaint of neck and/or spine pain or tenderness
3. Weakness, tingling or numbness of the trunk or extremities at any time **since** the injury
4. Deformity of the spine not present prior to the incident
5. Painful distracting injury or circumstances (i.e. anything producing an unreliable physical exam)
6. High Risk mechanism of injury associated with unstable spinal injuries that include, but are not limited to:
    - Axial Load (i.e. diving injury, spearing tackle)
    - High Speed motorized vehicle crashes or roll over
    - Pedestrian or bicyclist struck/collision
    - Falls >3feet/5steps or patient's height

Yes

No

Spine injury should be suspected and the patient should be placed in a properly fitted cervical collar and spinal movement minimized.

Patients without any of the above findings may be transported without the use of a cervical collar or any other means to restrict spinal motion.

Notes:

- **Spinal movement can be minimized by application of a properly fitting rigid cervical collar and securing the patient to the EMS stretcher.**
- **When spinal motion restriction has been initiated and a higher level of care arrives, patients should be reassessed for spinal injury (per this protocol).**
- **When possible, the highest level of care on scene will determine if spinal motion restriction is to be used or discontinued (collar removed, etc.)**
- **A long spine board is one of multiple modalities that can be used to minimize spinal movement. Electing not to use a long spine board will not constitute a deviation from the standard of care.**
- **Long spine boards do not have a role in transporting patients between facilities**

Eye Injuries

I. Perform initial assessment.

II. Assure that the patient's airway is open, and that breathing and circulation are adequate.

III. Stabilize impaled objects. **Do not remove impaled objects!**

IV. If the eye is contaminated, irrigate the eye(s) with saline solution or water for at least 20 minutes, but do not delay transport. Irrigation should be continued while enroute to the hospital. Have the patient blink frequently during the irrigation. Take care not to contaminate the uninjured eye.

V. Cover both eyes after flushing for a minimum of 20 minutes ***or*** if there is an impaled object. Both eyes should be covered to reduce sympathetic eye movement.

VI. Transport in supine or Semi-Fowler position.

VII. Ongoing assessment. Obtain and record the patient's vital signs enroute as often as the situation indicates.

VIII. Record all patient care information, including the patient's medical history and all treatment provided on a Prehospital Care Report (PCR).

Special Considerations

Oxygen Administration

I. Perform initial assessment.

A. **If the patient requires oxygen therapy:**

1. Assure that the patient's airway is open and that breathing and circulation are adequate. **If the airway is obstructed**, perform obstructed airway maneuvers according to AHA/NSC/ARC standards.

Note:

1. **Oxygen should never be withheld from patients requiring it, even though they may have COPD!**

2. **When administering oxygen, monitor the patient carefully for any slowing of respirations, be prepared to ventilate the patient as necessary!**

3. **In patients who are being chronically maintained on oxygen and who are being transported for a condition other than one requiring high concentration oxygen by these protocols, continue the administration of oxygen at the previously prescribed rate of flow.**

2. Administer **high-concentration oxygen**.

a. First choice—Non-rebreather mask at 12 LPM or greater so reservoir bag does not collapse during inhalation. If reservoir bag collapses and does not refill adequately, increase to 15 LPM.

b. Second choice—Nasal cannula at 6 LPM (used only if a mask is not tolerated).

Note:

There is no contraindication to high concentration oxygen in pediatric patients in the prehospital setting. Administration of oxygen is best accomplished by allowing the parent to hold the face mask, if tolerated, 6 to 8 inches from the child's face.

Humidified oxygen is preferred.

B. **If the patient demonstrates inadequate ventilations:**

1. Assist the patient's ventilations with high concentration oxygen using a positive pressure adjunctive device.

    a. First choice—Bag-valve-mask (BVM) with reservoir and supplemental oxygen.

Caution:
Adequate ventilation *may* require disabling the pop-off valve if the bag-valve-mask unit is so equipped!

    b. Second choice—Pocket mask with supplemental oxygen set at greater than 10 LPM.

    c. Third choice—Flow restricted oxygen powered ventilation device.

C. **If one or more signs of respiratory distress or respiratory arrest are present, refer immediately to the Respiratory Distress Protocol (M-15) or the appropriate Respiratory Arrest Protocol (M-7 or M-12)!**

II. Complete all other steps required in the treatment protocols that indicate the need for oxygen administration.

III. Record all patient care information, including oxygen administration and all treatment provided, on a Prehospital Care Report (PCR).

Hypoperfusion

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

Note:
For the purpose of this protocol, Adult Hypoperfusion is defined as:

1. **Systolic blood pressure of 90 mm Hg or less.**

2. **Systolic blood pressure above 90 mm Hg and signs of inadequate perfusion, such as:**
   - **A. Altered mental state (restlessness, inattention, confusion, agitation)**
   - **B. Tachycardia (pulse greater than 100)**
   - **C. Pallor**
   - **D. Cold, clammy skin**

3. **If a cardiac cause for hypoperfusion is suspected, refer immediately to the cardiac related protocol!**

Note:
For the purpose of this protocol, Pediatric Hypoperfusion is defined as signs of inadequate perfusion, such as:

1. **Altered mental status**
2. **Tachycardia (see appendix-A [pediatric])**
3. **Weak or absent distal pulses**
4. **Delayed capillary refill (greater than 2 seconds)**
5. **Pallor**
6. **Cold, clammy, or mottled skin**

This protocol should be used even if the systolic blood pressure is normal, or is difficult to obtain.

A low systolic blood pressure means that the shock is severe.

Caution:
Manually stabilize the head and cervical spine if trauma of the head and neck is suspected!

I. Perform initial assessment.

II. Assure that the patient's airway is open and that breathing and circulation are adequate.

III. Administer high concentration oxygen, and **be prepared to ventilate the patient!**

IV. Place the patient in a face-up position **and** elevate the patient's legs or the foot of the backboard 8 - 12 inches.

CFR

V. Apply MAST, if available and regionally approved[1]:

A. In adults with major blunt trauma, **if the systolic blood pressure is below 50 mm Hg and signs of inadequate perfusion are present,** inflate all three compartments to the recommended pressure ***or*** until the pop-off valves of all three compartments pop open.

B. In adults with major blunt trauma, **if the systolic blood pressure is below 90 mm Hg and signs of inadequate perfusion *and* an unstable pelvic fracture is present,** inflate all three compartments to the recommended pressure ***or*** until the pop-off valves of all three compartments pop open.

Note:
Do not delay transport to apply and inflate the MAST!

Note:
Do not use MAST
in Pediatric Major Trauma!

Caution:

- **If the patient has pulmonary edema, do not apply MAST!**
- **If the patient has a penetrating chest injury, do not apply MAST!**
- **If the patient has unilaterally decreased breath sounds, do not apply MAST!**
- **If the patient has an evisceration or an impaled object in the abdomen or legs, inflate only the MAST compartments not overlying the evisceration or impaled object!**
- **If the patient is known to be pregnant, inflate only the MAST's leg compartments!**
- **If the patient has a cardiac related problem, do not apply MAST!**
- **If the patient is a child, do not apply MAST!**

VI. Ongoing assessment. Obtain and record the patient's vital signs, repeat enroute as often as the situation indicates.

VII. Transport, keeping the patient warm.

VIII. Record all patient care information, including all treatment provided, on a Prehospital Care Report (PCR).

Note:
Once inflated, MAST must not be deflated in the field without physician direction!

1 "Regionally Approved" means approved by the appropriate Regional Emergency Medical Advisory Committee (REMAC) for use in that region.

Emergency Childbirth, Resuscitation and Stabilization of the Newborn

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. Perform initial assessment.

A. Assure that the mother's airway is open and that breathing and circulation are adequate.

B. Assess the mother for hypoperfusion. **If one or more signs of hypoperfusion are present, refer immediately to the Hypoperfusion Protocol!**

C. Obtain the mother's history to determine if the mother is in labor. The history includes:

1. How long have you been pregnant?
2. Number of previous pregnancies
3. Number of previous births
4. Frequency and duration of uterine contractions
5. Recent vaginal discharge or bleeding
6. Presence of urgency to move bowels or pressure in vaginal area

D. Be prepared to handle additional patient(s) in addition to the mother.

Caution:
Do not permit the mother to go to the bathroom!

E. Determine if the mother is having contractions.

1. **If the mother is having contractions** perform a visual inspection of the external genitalia and perineum for bulging and/or crowning. Have your partner present during this exam. **If there is crowning prepare for immediate delivery by:**

a. Informing the mother of the need for immediate delivery
b. Insuring a private, clean and sanitary environment
c. Positioning and draping the mother
d. Placing the OB kit within easy reach
e. Warming several towels (if possible)

Caution:
Never delay or restrain delivery under normal circumstances!

II. Delivery procedures:

A. During delivery support the infant's head with one hand while gently guiding it out of the birth canal to prevent an explosive delivery. Using your other hand with a sterile dressing, support the perineum (area between the vagina and the anus) to help prevent tearing during delivery of the head.

B. If the amniotic sac has not broken, use your finger or a clamp to puncture the sac and pull it away from the infant's head and mouth as they appear.

C. Attempt to prevent the infant's head from coming in contact with fecal material or other contaminants.

D. **As soon as the head delivers** continue to support the infant's head with one hand. **Tell the mother to stop pushing**. Inspect the infant for the umbilical cord wrapped around the neck.

1. **If the umbilical cord is wrapped around the infant's neck:** Gently loosen the cord and slip it over the infant's head.

2. **If the umbilical cord is wrapped too tightly around the infant's neck or wrapped around the neck more than once, preventing the delivery of the infant, immediately** clamp the umbilical cord with two clamps and cut the cord between them.

E. Suction the infant's oropharynx only if the airway is obstructed or artificial ventilations are required.

1. Insert a compressed bulb syringe 1 –1 ½ inches into the infant's mouth.

2. Suction the infant's oropharynx while controlling the release of the bulb syringe with your fingers.

3. Repeat suction as necessary.

No More Nostril Suction

G. Instruct the mother to begin pushing during contractions.

H. **As soon as the infant has delivered,** quickly dry the infant and place the infant on a warm towel (if available) in a face-up position with the head lower than the feet. **Keep the infant at the level of the mother's vagina until the cord is cut.**

Caution:
Spontaneous respirations should begin within 30 seconds.

I. Perform an initial assessment of the infant. Quickly assess the infant's respiratory status, pulse and general condition.

1. **If the infant is breathing spontaneously and crying vigorously and has a pulse greater than 100/min:**

   a. Clamp the umbilical cord 1 minute after birth with two clamps three inches apart and cut the cord between them. The first clamp will be 8 – 10 inches from the baby. Place the second clamp 3 inches from the first clamp towards the mother.

   b. Cover the infant's scalp with an appropriate warm covering.

   c. Wrap the infant in a dry, warm blanket or towels ***and*** a layer of foil over the layer of blankets or towels, ***or*** use a commercial-type infant swaddler if one is provided with the OB kit. **Do not use foil alone!**

   d. Ongoing assessment. Obtain and record vital signs, as often as the situation indicates.

   e. **Keep the infant warm and free from drafts.**

2. **Monitor the infant's respirations continuously. If the infant is *not* breathing spontaneously and crying vigorously:**

   a. **If the infant's respirations are absent or depressed (less than 30/minute in a newborn):**

      i. Rub the infant's lower back **gently**.

      ii. Snap the bottom of the infant's feet with your index finger **gently**.

   b. **If the respirations remain absent or become depressed (less than 30/minute in a newborn) despite stimulation, or if cyanosis is present:**

c. **If respirations remain absent or depressed (less than 30/minute in a newborn) despite stimulation and oxygen:**

i. Insert the proper size oral airway **gently**.

ii. Ventilate the infant without supplemental oxygen at a rate of 40 – 60 /minute with an appropriately sized pocket mask or bag-valve-mask as soon as possible. . Each ventilation given over one second **assuring that the chest rises with each ventilation. If patient does not respond within 30 seconds add supplemental oxygen.**

3. **Monitor the infant's pulse rate continuously**.

i. **If the pulse rate drops below 100 beats per minute at any time, assist ventilations at a rate of 40 – 60/minute with supplemental oxygen.**

ii. **If the pulse rate drops below 60 beats per minute at any time, or does not increase above 60 beats per minute after 30 seconds of assisted ventilations, add chest compressions to assisted ventilations following AHA/ARC/NSC guidelines.**

4. Ongoing assessment of the newborn. Obtain and record the vital signs of all patients, and repeat enroute as often as the situation indicates.

III. **Transport immediately**, keeping the infant warm. **Do not wait for the placenta to be delivered before transporting!**

IV. Prepare for deliver of the placenta during transport. Delivery of the placenta ***usually*** occurs within 20 minutes of the delivery of the infant. After delivery of the placenta, place the placenta in a plastic bag or other container and deliver to the receiving hospital. Massage the mother's abdomen where the fundus can be palpated.

V. Ongoing assessment of the mother.

A. Reassess the mother for hypoperfusion. **If one or more signs of hypoperfusion are present, refer immediately to the Hypoperfusion Protocol!**

B. Obtain and record the vital signs of all patients, repeat enroute as often as the situation indicates.

C. Record all patient care information, including the mother's medical history and all treatment provided for each patient, on a separate Prehospital Care Report (PCR) for each patient.

CFR

VI. **Complicated Childbirth**.

A. **Breech Birth**

1. **If the buttocks presents first:**

a. Administer high concentration oxygen to the mother.

b. Attempt to establish an open path in the birth canal to the infant's mouth with sterile-gloved fingers.

c. **Transport the mother immediately** in a face-up position with her hips elevated, while maintaining an open path in the birth canal to the infant's mouth.

2. **If a limb presents first:**

a. Administer high concentration oxygen to the mother.

b. Place the mother in a face-up position with her hips elevated and **transport immediately!**

B. **Prolapsed Umbilical Cord**

a. Administer high concentration oxygen to the mother.

b. Place the mother in a face-up position with her hips elevated, and using a sterile gloved hand, palpate the cord for pulses.

c. Insert a sterile gloved hand into the vagina and gently push up on the presenting part of the fetus to keep pressure off of the cord. Continue to hold the presenting part away from the cord until you are relieved by the ED staff. **Do not insert the cord back into the uterus!**

d. Wrap the exposed cord with sterile towel or dressings. The cord must be kept warm.

e. **Transport immediately** while protecting the umbilical cord from pressure during transportation.

C. **Multiple Births**

a. Obtain additional help as needed.

b. Deliver each multiple birth according to the above protocol for **Uncomplicated Childbirth**, making sure to clamp and cut each umbilical cord between births.

c. **If the anticipated second birth does not occur after 10 minutes, transport immediately!**

d. A Prehospital Care Report (PCR) must be completed for each patient.

Nebulized Albuterol for EMT and Above

Note:
This protocol is for patients between one and sixty-five years of age, who are experiencing an exacerbation of their previously diagnosed asthma.

Note:
Request Advanced Life Support if available.
Do not delay transport to the appropriate hospital.

I. Perform initial assessment.

II. Assure that the patient's airway is open and that the breathing and circulation are adequate.

Note:
If patient exhibits signs of imminent respiratory failure, refer to the Adult or Pediatric Respiratory Arrest Protocol.

III. Administer high concentration oxygen.

IV. Place the patient in the Fowler's or Semi Fowler's position.

V. Do not allow physical activity or exertion.

VI. Assess vital signs, ability to speak in complete sentences, accessory muscle use, wheezing, patient's assessment of breathing difficulties and through the use of a peak flow meter, Borg Scale, or other method.

VII. Begin transportation.

Note:
For patients with a history of Angina, Myocardial Infarction, Arrhythmia or Congestive Heart Failure, medical control MUST be contacted prior to administration of Albuterol!

Nebulized Albuterol, continued

VIII. Administer Abluterol Sulfate 0.083%, one (1) unit dose in a nebulizer at a flow rate of 4 – 6 LPM. **DO NOT delay transport to complete medication!**

IX. Re-assess vital signs, ability to speak in complete sentences, accessory muscle use, wheezing, patient's assessment of breathing difficulties and through the use of a peak flow meter, Borg Scale, or other method.

X. If patient's symptoms persist, a second administration of nebulized Albuterol may be administered. A maximum of two (2) total doses may be given.

XI. Ongoing assessment. Obtain and record the patient's vital signs enroute as often as the situation indicates.

XII. Record all patient care information, including the patient's medical history and all treatment provided on a Prehospital Care Report (PCR).

Refusing Medical Aid (RMA)

Note:
Request Advanced Life Support if the patient's condition warrants the need.
Do not delay transport to the appropriate hospital.

Note:
All competent adults have the right to refuse medical treatment and/or transport. It is the responsibility of the prehospital care provider to be sure that the patient is fully informed about their situation and the possible implications of refusing treatment or transport.

CFR Note:

CFR must not make an independent decision regarding a patient's refusal of medical care or transport.

The CFR must assure that additional EMS resources (EMT or above) will evaluate the patient.

I. Follow the protocol for "**General Approach to Prehospital Patient Management**" and any other treatment protocol, which is required according to the patient's condition and your assessment of the patient.

II. When the patient or legal guardian refuses treatment or requests that you discontinue further treatment of the patient, do not initiate any new treatment modalities.

III. Discuss with the patient the need for treatment and/or transport. If the patient still refuses treatment or transport and you feel that the patient's condition requires treatment or transport, allow the patient's family members, friends, or anyone else who is familiar with the patient to try and convince the patient of the need for treatment or transport. Contact Medical Control per regional protocol.

IV. If patient still refuses treatment or transport and the patient is 18 years of age or older, or is an emancipated minor, or is the parent of a child, or has married:

A. Assess level of consciousness using AVPU and GCS.

B. Attempt to obtain vital signs and repeat AVPU and GCS every 5 – 10 minutes.

C. Evaluate the patient for any apparent medical or physical conditions, which may limit the patient's ability to think rationally. For example:

1. Psychiatric or behavioral disorders.
2. Patient presents a danger to themselves or others.
3. Current alcohol or drug use.
4. History of disease effecting mental capacity (i.e. Alzheimer's).
5. Evidence of abuse to the patient.
6. Inability to ambulate.

D. If patient is **A**lert with a GCS of 15 and no evidence of any apparent medical or physical conditions, which may limit the patient's ability to think rationally:

1. If patient still refuses treatment or transport offer to call Medical Control or the patient's own physician and have the patient speak with the physician.

2. If patient still refuses treatment or transport continue to step VI.

E. If patient is not **A**lert, has a GCS of less then 15, or there is evidence of an apparent medical or physical condition, which may limit the patient's ability to think rationally:

A. Obtain assistance from Law Enforcement and contact Medical Control for direction.

V. If the patient still refuses treatment or transport and is under the age of 18, or is not an emancipated minor, or is not the parent of a child, or is not married:

A. These individuals cannot give effective legal/informed consent to treatment and therefore, conversely, cannot legally refuse treatment.

B. In an emergency situation when a parent or guardian is not available to give consent, emergency treatment and transport should be rendered based on implied consent.

C. In an emergency or non-emergency situation when a parent or guardian is present, the EMS provider must obtain consent from the parent or guardian prior to rendering treatment or transport.

D. If a parent or guardian is refusing to give consent for treatment or transport, and the EMS provider feels that treatment or transport is necessary, the EMS provider should obtain assistance from a Law Enforcement agency. Medical Control should be contacted and the parent or guardian should be allowed to speak with the physician.

E. If the parent or guardian is still refusing treatment or transport and Law Enforcement is not directing the removal of the patient to a hospital, proceed to VI.

VI. For any patient who refuses treatment or transport, the EMS provider must advise the patient, or if applicable the parent or guardian, of the possible consequences of their refusal.

VII. Complete a Prehospital Care Report (PCR) for the patient. At a minimum the following patient information must be documented or the EMS provider must document the reasons why this patient information cannot be documented.

A. Documentation Information:

1. Age and sex.
2. Patient's name, address, and date of birth.
3. Chief complaint.
4. Subjective and objective patient assessment findings.
5. Pertinent history as needed to clarify the problem (mechanism of injury, previous illnesses, allergies, medications, etc.)
6. Level of consciousness.
7. One complete set of vital signs
8. Treatment given and the patient's response.
9. Parent or guardian's name if applicable.
10. Identification information of any Law Enforcement personnel and Medical Control directly involved with the refusal of treatment or transport.
11. ***Document that risks and consequences were explained and understood.***

B. Complete the refusal documentation on the back of the PCR and/or any other regional or agency approved refusal of treatment or transport form. Have the patient, or where applicable the parent or guardian sign the refusal form. If the patient or applicable responsible party refuses to sign the refusal form then have a family member, Law Enforcement official, or bystander sign as a witness and document the refusal to sign on the PCR.

Appendices

NEW YORK STATE'S EMERGENCY MEDICAL SERVICES PEOPLE WHO CARE

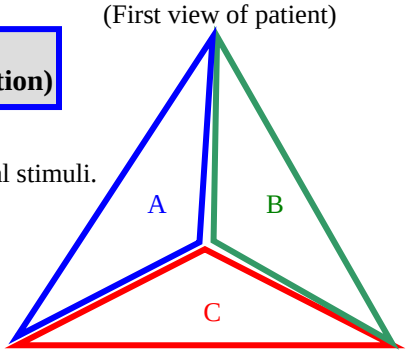
PEDIATRIC ASSESSMENT

EMSC Emergency Medical Services for Children – New York

Updated 2011

General Impression

(First view of patient)



Airway & Appearance (Open/Clear – Muscle Tone /Body Position)

Abnormal: Abnormal or absent cry or speech. Decreased response to parents or environmental stimuli. Floppy or rigid muscle tone or not moving.

Normal: Normal cry or speech. Responds to parents or to environmental stimuli such as lights, keys, or toys. Good muscle tone. Moves extremities well.

Work of Breathing (Visible movement / Respiratory Effort)

Abnormal: Increased/excessive (nasal flaring, retractions or abdominal muscle use) or decreased/absent respiratory effort or noisy breathing.

Normal: Breathing appears regular without excessive respiratory muscle effort or audible respiratory sounds.

Circulation to Skin (Color / Obvious Bleeding)

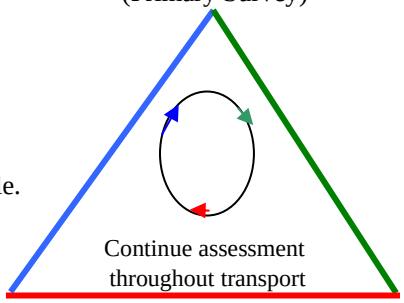
Abnormal: Cyanosis, mottling, paleness/pallor or obvious significant bleeding.
Normal: Color appears normal for racial group of child. No significant bleeding.

Decision/Action Points:

- **Any abnormal findings or life-threatening chief complaint** such as major trauma/burns, seizures, diabetes, asthma attack, airway obstruction, etc (urgent) – proceed to Initial Assessment. Contact ALS if ALS not already on scene/enroute.
- **All findings normal** (non-urgent) – proceed to Initial Assessment.

Initial Assessment

(Primary Survey)



Airway & Appearance (Open/Clear – Mental Status)

Abnormal: Obstruction to airflow. Gurgling, stridor or noisy breathing. **V**erbal**, P**ain**, or U**nresponsive on AVPU scale.

Normal: Clear and maintainable. **A**lert on AVPU scale.

Breathing (Effort / Sounds / Rate / Central Color)

Abnormal: Presence of retractions, nasal flaring, stridor, wheezes, grunting, gasping or gurgling. Respiratory rate outside normal range. Central cyanosis.

Normal: Easy, quiet respirations. Respiratory rate within normal range. No central cyanosis.

Circulation (Pulse Rate & Strength / Extremity Color & Temperature / Capillary Refill / Blood Pressure)

Abnormal: Cyanosis, mottling, or pallor. Absent or weak peripheral or central pulses; Pulse or systolic BP outside normal range; Capillary refill > 2 sec with other abnormal findings.
Normal: Color normal. Capillary refill at palms, soles, forehead or central body ≤ 2 sec. Strong peripheral and central pulses with regular rhythm.

Decision/ Action Points:

- **Any abnormal finding** – Immediate transport with ALS. If ALS is not immediately available, meet ALS intercept enroute to hospital or proceed to hospital if closer. Open airway & provide O_2. Assist ventilations, start CPR, suction, or control bleeding as appropriate. Check for causes such as diabetes, poisoning, trauma, seizure, etc.
  Assist patient with prescribed bronchodilators or epinephrine auto-injector or administer meds if approved and appropriate.
- **All findings on assessment of child normal** – Continue assessment, detailed history & treatment at scene or enroute.

Normal Respiratory Rate:		Normal Pulse Rate:		Lower Limit of Normal Systolic BP:	
Infant (<1yr):	30- 60	Infant:	100-160	Infant:	>60 (or strong pulses)
Toddler (1-3yr):	24 -40	Toddler:	90-150	Toddler:	>70 (or strong pulses)
Preschooler(4-5yr):	22- 34	Preschooler:	80-140	Preschooler:	>75
School-age(6-12yr):	18 -30	School-age:	70-120	School-age:	>80
Adolescent(13-18yr):	12 -20	Adolescent:	60-100	Adolescent:	>90
		Pulses slower in sleeping child / athlete		Estimated min.SBP >70 + (2 x age in yr)	

This reference card should NOT replace or supersede regional prehospital medical treatment protocols.

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APGAR Score

	0 pt	1 pt	2 pts
Appearance	Blue	Pink Body Blue Limbs	All Pink
Pulse	Absent	<100	≥100
Grimace/Reflex	None	Grimace	Cough/Sneeze
Activity	Limp	Some flexion	Active motion
Respirations	Absent	Slow/Irregular	Good

Neonatal Resuscitation

Dry, Warm, Position, Tactile Stimulation
Call for ALS back-up if needed
Suction if airway obstruction or BVM needed

Apnea/Gasping, HR <100 or central cyanosis

BVM @40-60/min with room air. O_2 if sat stays < 95%

HR<60 after 30 sec. BVM

Chest Compressions @ 120/min - 3:1
1/3 to 1/2 chest depth
2 thumb encircle chest or 2 fingers

ALS available & HR <60

Consider intubation
Epinephrine
0.01-0.03mg/kg
IV/IO/ET
1:10,000
q 3-5 min

Glasgow Coma Score

Infants		Children /Adults
Eye Opening		
Spontaneous	4	Spontaneous
To speech/sound	3	To speech
To pain	2	To pain
No response	1	No response
Verbal Response		
Coos or babbles	5	Oriented
Irritable crying	4	Confused
Cries to pain	3	Inappropriate words
Moans to pain	2	Incomprehensible
None	1	None
Motor Response		
Spontaneous	6	Obeys commands
Withdraws touch	5	Localizes pain
Withdraws pain	4	Withdraws pain
Abnormal flexion	3	Abnormal flexion
Abnormal extension	2	Abnormal extension
No response	1	No response

Respiratory or Cardiac Arrest

	Infant	Child	Adol/Adult
VENT RATE Patient with pulses	20/min	12-20/min	12/min
COMPRESS METHOD	Encircle or 2 fingers	1 or 2 hands	2 hands
DEPTH	1/3 (1 1/2 in)	1/3 (2 in)	at least 2 in
COMPRESS RATE(minimum)	100/min	100/min	100/min
C:V RATIO (2 people)	15:2	15:2	30:2
Push HARD & FAST, allow full chest RECOIL!			

CPR Notes:

- **Start CPR for cardiac arrest or HR<60 with poor perfusion.**
- **AEDs with pediatric capabilities preferred if patient < 25kg or 55lb (<8 yr old). If unavailable, may use adult AED.**
- **Do not pause CPR for more than 10 sec.for pulse checks, intubation, patient transfer or other reasons. Give medications during CPR whenever possible.**
- **Do not synchronize ventilations/compressions after intubation - ventilate at 8-10/min when no pulses.**
- **After defibrillation, do 2 full minutes of CPR starting with compressions before pulse/rhythm check.**
- **Adolescent/Adult protocols apply to patients with obvious signs of puberty (breast development obvious through clothing, facial hair, etc), acne, adult appearance/size, or visible axillary hair**

Pediatric ALS Guidelines

Asystole or PEA

Start CPR
Intubate if needed to maintain airway.

Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO
0.1 mg/kg 1:1000 ET
Continue Epinephrine q 3-5 min, same dose

Bradycardia

Open airway & ventilate with oxygen.
Intubate if needed to maintain airway and decreased consciousness
Start CPR if HR<60 with poor perfusion.
Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO
0.1 mg/kg 1:1000 ET
Continue Epinephrine q 3-5 min, same dose
Atropine 0.02 mg/kg IV/ IO
0.03 mg/kg ET
minimum dose 0.1 mg
maximum dose 0.5 mg child; 1 mg adol.
Consider transcutaneous pacing as needed.

VF or Pulseless VT

Defibrillate 2j / kg (after 2 min CPR)
Continue CPR, ventilate with O_2;
Intubate if needed to maintain airway,
Epinephrine: 0.01 mg/kg 1:10,000 IV/ IO
(q3-5 min) 0.1 mg/kg 1:1000 ET
Defibrillate 4j / kg; Resume CPR immed.
Amiodarone 5mg/kg IV/IO (pref) *or*
Lidocaine 1mg / kg IV/ IO/ ET
Defibrillate 4-10 J/kg q 2 min as needed (up to adult dose)
Use Magnesium 25-50mg/kg IV/ IO if torsades de pointes or hypomagnesemia

Consider possibility of hypoxia, hypovolemia, hypothermia, hydrogen ion (acidosis), hyper/hypokalemia, hypoglycemia, tamponade, tension pneumothorax, toxins/poisons/drugs, trauma or thrombosis (coronary or pulmonary) and treat if present.

This reference card should NOT replace or supersede regional prehospital medical treatment protocols.

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New York State Trauma Program

The NYS Trauma Program is housed within the NYS Department of Health - Bureau of Emergency Medical Services. The Program oversees the statewide trauma system consisting of one State Trauma Advisory Committee (STAC), eight Regional Trauma Advisory Committees (RTACs), 40 Regional and Area ("Level 1" and "Level 2", respectively) Trauma Centers, and a New York State Trauma Registry (NYSTR). The Program integrates these pieces, along with the statewide EMS system, to regulate and assure high quality trauma care to seriously injured patients.

The current list of NYS Trauma Centers can be found on our website at:

http://www.health.ny.gov/professionals/ems/state_trauma/trauma2.htm

Please refer to this webpage for the most up-to-date information regarding Trauma Centers in your area.

Notes