STATE OF OHIO

EMFTS BOARD

REGIONAL PHYSICIANS ADVISORY BOARD

EMS GUIDELINES AND PROCEDURES MANUAL

FOR EMERGENCY MEDICAL RESPONDERS

INTRODUCTION

Ohio emergency medical services (EMS) providers strive every day to deliver the highest standard of emergency medical services to the people of Ohio. On behalf of the State Board of Emergency Medical, Fire, and Transportation Services, the Regional Physician Advisory Board was charged with drafting proposed guidelines that EMS agencies could use in setting that standard.

Please note that the proposed guidelines are not mandatory for Ohio EMS agencies. The guidelines and procedures manual is meant to assist in the development of local protocols. It is the Board's hope that individual regions or agencies will review these guidelines with their medical directors and legal counsel when drafting their own individualized protocols. The guidelines were updated in 2012 and will be periodically reviewed by the Regional Physician Advisory Board in order to maintain the most current information available.

These guidelines are an annex to the current version of the State of Ohio EMS Guidelines document. They can be used by emergency medical responders (EMRs) who initiate care until the patient is transferred to the care of a higher level of EMS professional or medical professional in the prehospital setting. A higher level of emergency medical services should be dispatched immediately to activate a response by a higher level of EMS professional. Medical direction can at any time and for any reason and should be contacted as soon as possible for deterioration in patient condition.

Reviewed & Approved by:
Regional Physician Advisory Board Chairs
Medical Oversight Committee
State Board of Emergency Medical, Fire, and Transportation Services

February 6, 2012
Revised October 16, 2013, June 18, 2013, December 16, 2015, February 13, 2020

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OPERATIONAL GUIDELINES

General Patient Care Guidelines

The following measures should be exercised with all patients under the care of an emergency medical responder (EMR).

1. Assess the safety of the scene. Scene safety must be secured prior to initiation of patient care. All appropriate personal protective equipment should be worn prior to contact with the patient (**B**ody **S**ubstance **I**solation).

2. Assess the airway and respiratory status. Open the airway if necessary, and maintain and protect the airway.

3. Activate 911 (or an EMT, AEMT, or Paramedic unit) response.

4. Administer high flow oxygen via non-rebreather face mask. Patients who are on home oxygen can be maintained on the same flow rate and oxygen delivery device they are prescribed if they have no respiratory complaints or observed respiratory difficulty. Patients with extreme respiratory distress, poor or labored respiratory effort, absent respirations, decreased mental status, or cyanosis should be ventilated with 100% oxygen via bag valve mask. Be prepared to log roll the patient if emesis occurs.

5. Remove any clothing necessary to have rapid access to the chest for examination. Remove all restrictive, wet, or contaminated clothing. Expose all injured sites fully and avoid excessive heat loss.

6. Obtain a complete set of vital signs and repeat them at least every fifteen minutes. Multiple trauma victims and patients with chest pain, shortness of breath, altered mental status, hypotension, or shock should have vital signs repeated at least every five minutes. Assess the patient's circulation by noting capillary refill, skin color, and skin temperature.

7. Assess the patient's mental status and level of consciousness. The AVPU system is recommended and the patient's highest level of response should be documented.

8. Inspect and palpate for **D**eformities, **O**pen injuries, **T**enderness, and **S**welling.

9. Place the patient in a position of comfort unless spinal immobilization is indicated.

10. Obtain a patient history from the patient and family members. The "SAMPLE" history is recommended. Provide reassurance to the patient.

11. Perform a secondary patient assessment with a complete physical examination. Document all abnormal physical findings and areas of complaint.

12. Provide a full report of the patient's chief complaint, subjective and physical findings, and care provided to the patient to the EMS unit responding to the scene. Document the name of the responding EMS unit, the time of transfer, and the patient condition at the time of transfer.

PATIENT HISTORY

The “SAMPLE” system is a tool to assist in the acquisition of key elements regarding the patient’s chief complaint (illness and/or injury), past medical history, and condition.

“S A M P L E”

S…….Signs and symptoms

O…….Onset
P…… Provocation
Q…….Quality
R…… Region and Radiation
S…… Severity
T…… Time

A…….Allergies

M…… Medications

P…….Past Medical History

L……Last oral intake

E…….Events preceding the chief complaint and onset of symptoms

MENTAL STATUS

The “AVPU” system is recommended for the assessment of a patient’s mental status. The highest level of response should be noted. The patient may respond to a stimulus verbally or physically (eye opening, movement).

“AVPU”

A…….ALERT	-	Conscious and talking
V…….VERBAL	-	Responds to a loud verbal stimulus
P…….PAINFUL	-	Responds to a painful stimulus (sternal rub or gentle pinch to an extremity)
U…….UNRESPONSIVE	-	No response to verbal stimulus

TRAUMA ASSESSMENT

The “DOTS” system is a basic tool for the assessment of trauma patients by emergency medical responders (EMRs) and other first responders.

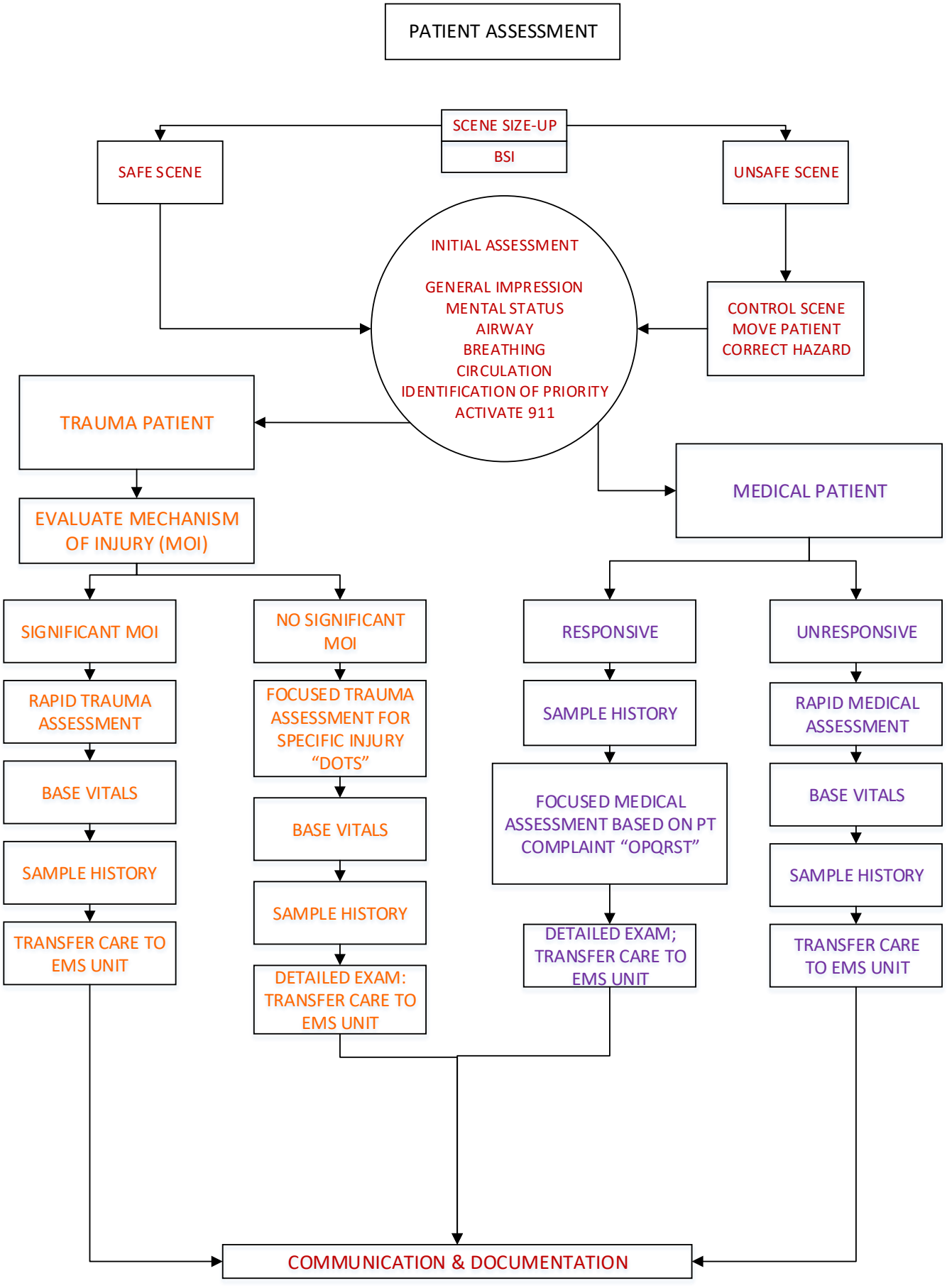
“DOTS”

D……DEFORMITY

O……OPEN WOUNDS

T……..TENDERNESS

S……..SWELLING


PATIENT ASSESSMENT
SCENE SIZE-UP
BSI
SAFE SCENE
UNSAFE SCENE
INITIAL ASSESSMENT
GENERAL IMPRESSION
MENTAL STATUS
AIRWAY
BREATHING
CIRCULATION
IDENTIFICATION OF PRIORITY
ACTIVATE 911
CONTROL SCENE
MOVE PATIENT
CORRECT HAZARD
TRAUMA PATIENT
MEDICAL PATIENT
EVALUATE MECHANISM OF INJURY (MOI)
SIGNIFICANT MOI
NO SIGNIFICANT MOI
RESPONSIVE
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RAPID TRAUMA ASSESSMENT
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SAMPLE HISTORY
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BASE VITALS
BASE VITALS
FOCUSED MEDICAL ASSESSMENT BASED ON PT COMPLAINT "OPQRST"
BASE VITALS
SAMPLE HISTORY
SAMPLE HISTORY
SAMPLE HISTORY
TRANSFER CARE TO EMS UNIT
DETAILED EXAM: TRANSFER CARE TO EMS UNIT
DETAILED EXAM; TRANSFER CARE TO EMS UNIT
TRANSFER CARE TO EMS UNIT
COMMUNICATION & DOCUMENTATION

Additional EMR Patient Care Guidelines for Specific Chief Complaints

Abdominal Pain: Palpate the abdomen. Note and document the sites of tenderness and the presence or absence of distention or rigidity.

Airway Management: The patient's pulse oximetry can be assessed and documented during the patient's initial assessment. Oxygen can be administered via nasal cannula, non-rebreather masks, or mouth-to-barrier devices. Active or supportive patient ventilation can be performed via bag valve mask or flow-restricted oxygen-powered devices. Pulse oximetry measurements should also be obtained after the application of oxygen, changes in the percentage of oxygen administered, the initiation of active ventilator support with a bag valve mask or flow-restricted oxygen-powered device, or change in a patient's clinical condition. The use of capnography as an airway assessment tool is permitted and is actually preferable for the patient that requires active ventilator support or assistance.

Airway Obstruction: Visible obstructions of the airway may be removed manually. Blind sweeps should never be performed in pediatric patients.

Complete airway obstruction: Attempts to dislodge a foreign body that is causing a complete airway obstruction can be made for up to one minute followed by immediate activation of the emergency response system. For persistent complete airway obstruction, attempts to dislodge the foreign body should resume until the EMS unit arrives and assumes care. Back blows and chest thrusts may be used to dislodge a foreign body that is causing a complete airway obstruction in adults and children over the age of 1 year, and abdominal and/or chest thrusts may be used in children under the age of 1 year.

Partial airway obstruction: The patient should be allowed to be in a position of comfort, usually in the tripod position, and oxygen should be applied. The emergency response system should be activated immediately, and the EMR should apply a pulse oximeter and/or capnograph and monitor the patient for airway compromise, altered mental status, and potential progression to a complete airway obstruction.

Altered Level of Consciousness: If the onset was not witnessed or the etiology is unknown, apply oxygen. If the patient is not breathing adequately, provide mouth-to-mouth ventilation with a barrier device or administer 100% oxygen via a bag valve mask. Consider the possibility of trauma and apply spinal immobilization if clinically indicated.

Anaphylaxis: If the patient exhibits hives, itching, and/or wheezing with a normal blood pressure, contact medical direction as soon as possible. If the patient exhibits hives, itching difficulty breathing, and/or swelling with a low blood pressure, administer epinephrine 1:1,000 via auto-injector.

Burns: Remove the patient from the burn source after scene safety has been secured. Examine the patient for evidence of inhalation injury (burns to the face or neck, singed nasal hairs, cough, stridor, soot in the sputum) and inform the responding EMT unit of your physical findings. Estimate the extent (percentage of total body surface area (*TBSA*) burned) and the depth (degree) of the burn. Consider dispatching the HAZMAT team if radiation or chemicals are involved.

Thermal Burns: Cover the burns with a dry bulky dressing if a large percentage of the total body surface area is involved. Otherwise, cool the site with sterile saline or water. If the patient starts to shiver, stop the cooling process.

Chemical Burns: Remove the patient's clothing and flush the skin. Leave contaminated clothing at the scene. Determine the chemicals involved and contact the appropriate agency for chemical information. Cover the patient over and under prior to transferring to the squad. The patient should be transported by personnel who are not involved in the decontamination process.

Radiation Burns: Treat as thermal burns unless the burn is contaminated with radioactive material. If the burn has radioactive contamination, treat it as a chemical burn.

Electrical Burns: Turn off the electrical source and do not attempt to remove the patient from the scene until the electricity is confirmed to be shut off. Treat as a thermal burn and document visible entrance and exit wounds.

Cardiac Arrest: Establish unresponsiveness, activate the emergency response system, and initiate CPR. If available, apply an AED and follow the AED guidelines. Pulseless patients or those with a weak or slow pulse following a known or suspected opioid overdose should be managed as cardiac arrest patients. Standard resuscitative measures should be initiated immediately and should take priority over naloxone administration or waiting for a response from previously administered naloxone.

Additional CPR Guidelines for the Pediatric Patient: If the patient has a pulse and is not breathing or only gasping, give one breath every three minutes and recheck the pulse every 2 minutes. Assist ventilation with bag-valve-mask while administering 100% oxygen or provide mouth to mouth ventilation using barrier device. If the patient does not have a pulse, immediately provide quality CPR for two minutes, apply the AED, analyze the rhythm, and deliver a shock if indicated. If the patient remains unresponsive, resume quality CPR for two minutes and analyze the rhythm after each two-minute cycle of CPR until the patient starts to move or advanced life support (ALS) providers assume care.
NOTE: In 2015, the American Heart Association recommends a chest compression rate of 100 to 120 compressions per minute for infants and children. In addition, the recommended depth of chest compressions for children who have reached puberty, i.e. adolescents, is now 2 (5 cm) to 2.4 (6 cm) inches.

Cardiac Chest Pain: If the patient's systolic blood pressure is above 110, you may permit the patient to administer nitroglycerin to himself if he has the medication that has been prescribed to him. Repeat vital signs after the patient has taken the medication and document the clinical effect. Allow the patient to retain the possession of his medication and inform the EMT unit of this along with the medication administration time and clinical results.

Childbirth/Obstetrical Emergencies: Dispatch 911 immediately. An EMR may assist in the management of emergency childbirth. Unless delivery is imminent, place the patient on her left side. Imminent delivery is when the baby's head is visible in the vaginal opening during a contraction (crowning). A visual inspection of the perineal area should only be done when contractions are less than five minutes apart or if there is bleeding or fluid discharge. A mother in active labor should be placed on a cot or on the floor to prevent the newborn from falling after delivery. During delivery, gentle pressure with on open hand on the baby's head should be applied to prevent an explosive delivery. Immediately after the head is delivered, check the neck for the umbilical cord. If the cord is wrapped around the neck, gently pull it over the baby's head. Frequent suctioning of the head and mouth is imperative during and after delivery. Keep the baby warm and dry allowing the placenta to deliver spontaneously. If there is a breech presentation, create an airway for the newborn by pushing the birth canal away from the infant's mouth with two fingers. If there is a prolapsed cord, do not pull or push on it. Place the mother in a knee chest position to reduce the pressure on the umbilical cord.

Diabetic Emergencies: If the patient is conscious and has an intact airway, sugar, candy, or beverages that contain glucose (i.e. orange juice) can be administered orally. If the patient's mental status is decreased, roll the patient on his side to prevent aspiration and sprinkle a small amount of granulated sugar under the tongue.

Eye Injuries: Do not allow an eye injury to distract you from the basics of trauma care. Do not remove any foreign body embedded in the eye or the orbit. Stabilize any large protruding foreign bodies. If blunt trauma occurs to the eye, examine the globe briefly for lacerations as the eyelid may become tightly swollen later. Scleral rupture may lie beneath an intact conjunctiva. Do not exert pressure on the globe of the eye when performing the exam or when covering it for transport. A light sterile wet dressing may be used to cover the eye and direct pressure must be avoided when covering the eye with a protective shield (metal patch, drinking cup). Covering both eyes when only one eye is injured may help to minimize trauma to the injured eye. If the eye injury in non-penetrating and due to a chemical exposure or burn, flush the eye continuously with water or sterile saline. Transport the patient in an upright sitting position unless contraindicated by the presence of other injuries.

Heat Exposure: Heat stroke is the most serious type of heat exposure illness. It is caused by prolonged exposure to heat, inadequate fluid replacement, and dysfunctional thermoregulatory function. Victims of heat stroke experience inadequate perspiration with body temperatures 105°F or greater. The skin is usually hot and dry. Altered mental status, coma, or seizures may occur. Cardiovascular collapse is the usual cause of death. Heat exhaustion is a moderate type of heat exposure illness that is associated with dehydration and overexertion. The skin is cooler and the core temperature is below 105°F. Syncope with orthostatic hypotension may occur. Heat cramps is the mildest type of heat exposure illness and is caused by dehydration, overexertion, and electrolyte imbalances. The skin is moist and muscles cramps occur, particularly in the large muscle groups. Apply cool packs to the axilla, groin, and neck. A wet sheet can be placed over the patient with cool air introduced into the environment (open window, fan, air conditioning). Avoid shivering in all cases. If the patient is conscious and the airway is intact, non-alcoholic beverages can be administered orally.

Hemorrhage Control: Hemorrhage control can be achieved by application of manual pressure, by a method approved by the EMR's medical director, or if trained, a tourniquet.

ADDITIONAL EMR PATIENT CARE GUIDELINES FOR SPECIFIC CHIEF COMPLAINTS (Continued)

Hypothermia/Frostbite: Remove all wet clothing and rewarm the affected areas slowly.

Opioid Overdose: For suspected opioid overdose, administer naloxone (Narcan®) 2 mg intranasally or naloxone 0.4 mg via auto-injector (EVZIO®). Pulseless patients or those with a weak or slow pulse following a known or suspected opioid overdose should be managed as cardiac arrest patients. Standard resuscitative measures should be initiated immediately and should take priority over naloxone administration or waiting for a response from previously administered naloxone.

Pediatrics: Manage the airway aggressively as most serious conditions in the pediatric patient population are caused by hypoxia or respiratory failure. Heat loss occurs rapidly in the pediatric patient and maintenance of patient warmth is imperative. AED use is contraindicated in children under 1 year of age.

Poisoning: Determine and document the type and amount of the exposure and when the exposure occurred.

Psychiatric Emergencies: Dispatch the law enforcement agencies in addition to an EMS unit. Attempt to develop a verbal rapport with the patient. Avoid or defer actions that may cause patient agitation.

Respiratory Distress: In addition to the following, see the Airway Management guidelines. The EMR may permit the patient to self-administer a bronchodilator metered dose inhaler if the patient has the medication that has been prescribed to them. Repeat the vital signs after the patient has taken the medication and document the clinical effect. Allow the patient to retain possession of their medication and inform the responding EMS unit of this along with the medication administration time and clinical results.

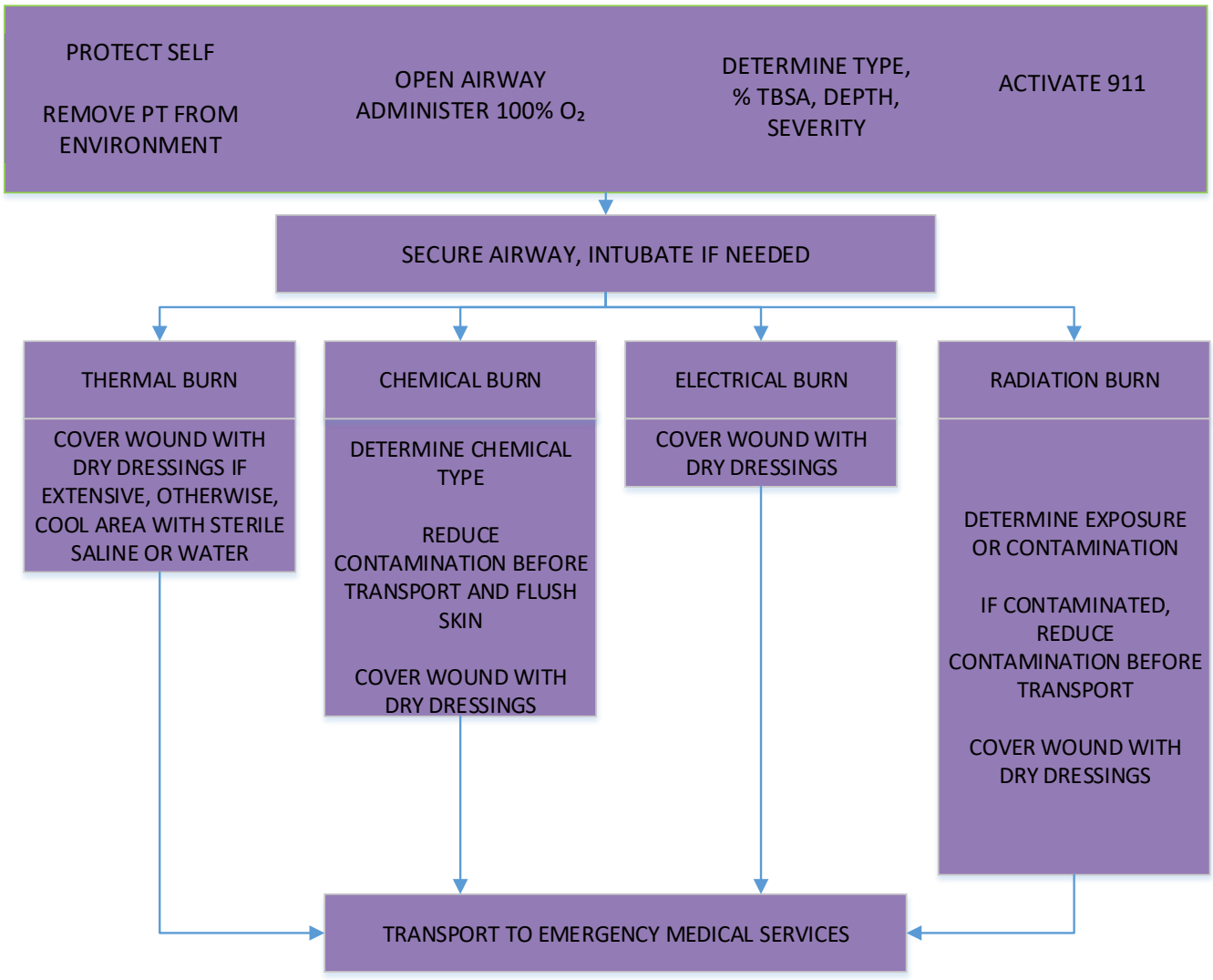
Seizures: Protect and support the patient as most seizures last less than one minute and have usually ceased by the time the responding EMS unit will arrive. The patient may experience a postictal state following a seizure. Please in a recovery position (lying on one side with the head lowered 15 to 30 degrees). Suction the mouth if the equipment is available. If possible, clear the mouth of foreign bodies. Do not place your fingers or foreign objects between the teeth.

Shock: Place the patient flat and facing up with the legs elevated 8 to 12 inches if possible. Do not elevate the legs if extremity or pelvic fractures are suspected.

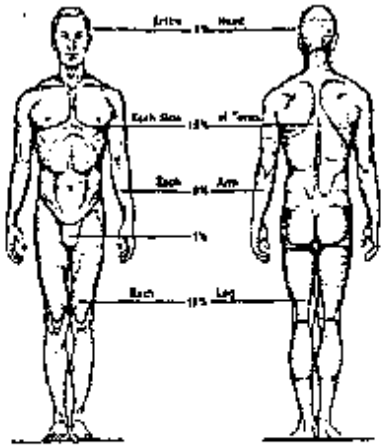
> Hypovolemic Shock: Control external bleeding with a dressing and direct pressure. If trained, application of a tourniquet is indicated for massive extremity bleeding or bleeding that is poorly controlled by direct pressure. Immobilize and splint all obvious extremity deformities.
> Anaphylactic Shock: Apply ice to hives. Remove the source of the anaphylactic reaction from the patient's environment if possible. If an insect stinger remains in the skin, remove it by scraping the surface of the skin with a firm straight edge (i.e. credit card). If the patient has self-administered or received an epinephrine auto-injector prior to your arrival, document this and keep the used auto-injector with the patient. An EMR may assist a patient with the self-administration of an epinephrine auto-injector that has been prescribed to the patient if the EMR has a protocol provided by the medical director of the EMR's EMS agency. In addition, an EMR may assist with the self-administration of an EMS-provided epinephrine auto-injector to patient when verbal medical direction is provided. Repeat the vital signs after the patient has received the medication and document the clinical effect. Inform the responding EMS unit that the patient has the medication or empty cartridge in his possession along with the medication administration time and clinical results.

Trauma: Apply spinal immobilization. Flail segments in the chest wall should be stabilized with a thick, bulky pad of dressings, a pillow, or a blanket. Control external bleeding with a dressing and direct pressure. If trained, application of a tourniquet is indicated for massive extremity bleeding or bleeding that is poorly controlled by direct pressure. Immobilize and splint all obvious extremity deformities.

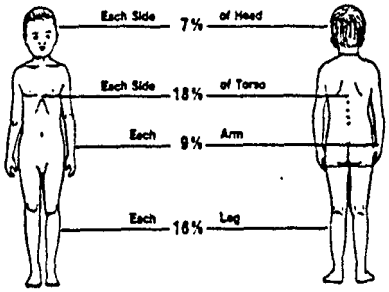
BURNS


PROTECT SELF
REMOVE PT FROM ENVIRONMENT
OPEN AIRWAY
ADMINISTER 100% O_2
DETERMINE TYPE, % TBSA, DEPTH, SEVERITY
ACTIVATE 911
SECURE AIRWAY, INTUBATE IF NEEDED
THERMAL BURN
COVER WOUND WITH DRY DRESSINGS IF EXTENSIVE, OTHERWISE, COOL AREA WITH STERILE SALINE OR WATER
CHEMICAL BURN
DETERMINE CHEMICAL TYPE
REDUCE CONTAMINATION BEFORE TRANSPORT AND FLUSH SKIN
COVER WOUND WITH DRY DRESSINGS
ELECTRICAL BURN
COVER WOUND WITH DRY DRESSINGS
RADIATION BURN
DETERMINE EXPOSURE OR CONTAMINATION
IF CONTAMINATED, REDUCE CONTAMINATION BEFORE TRANSPORT
COVER WOUND WITH DRY DRESSINGS
TRANSPORT TO EMERGENCY MEDICAL SERVICES

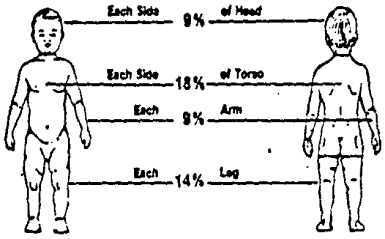
RULE OF NINES



Percentage of Adult Body Surface



Percentage of Child Body Surface



Percentage of Infant Body Surface

1% is equal to the surface of the palm of the patient's hand. If unsure of %, describe injured area.

SERIOUSNESS OF BURNS

MINOR	MODERATE	CRITICAL
1st degree < 70%	1st degree > 70%	2nd degree > 30%
2nd degree < 10%	+2nd degree 10-30%	3rd degree > 2%
+3rd degree < 2%		Any burns with trauma.
		Any burns with head, face,
+ Only if hands, face, feet or genitalia are NOT involved.		feet, genitalia involved.

Automated External Defibrillator (AED) Guidelines

Patients who experience a sudden collapse and become unresponsive may be in cardiac arrest. Multiple studies have demonstrated that ventricular fibrillation or ventricular tachycardia are the abnormal cardiac rhythms associated with this condition. Ventricular fibrillation or tachycardia are treated with an electrical shock (defibrillation) to convert the heart's conduction back into a normal sinus rhythm.

Following confirmation of unresponsiveness of the patient, the American Heart Association recommends the initiation of quality CPR and activation of the ACLS system, typically via 9-1-1, immediately at the time of a cardiac arrest. Current recommendations for the compression-to-ventilation ratio for CPR is 30:2 with compressions performed rapidly. As soon as it is available, an AED should be applied, and if a shock is advised, the patient should be immediately be defibrillated once with 120J-150J biphasic (or 360 J monophasic). If a victim is unresponsive, CPR should be initiated immediately and the AED applied for analysis of the patient's cardiac rhythm immediately after it is available on scene. If a shock is indicated, one shock should be delivered by the AED and the rescuer should resume five cycles of CPR immediately if the victim remains unresponsive. The rescuer should not delay CPR to check for a pulse or signs of circulation.

Automated external defibrillators (AEDs) were designed for use by laypersons and individuals that have not be trained or certified in the interpretation of cardiac rhythms displayed on a monitor. An AED should never be applied to a patient who is conscious or to a patient who has a pulse. An AED can be set in a fully automatic or semi-automatic mode. When applied to the patient, the AED will analyze and interpret the patient's cardiac rhythm. In the automatic mode, the AED will automatically deliver a shock to the patient if indicated. In the semi-automatic mode, the AED will advise the user (via a lighted written message or a computerized voice) if a shock is advised based on its analysis of the cardiac rhythm. The user must then push an indicated button to deliver a shock to the patient. Following defibrillation, the AED will prompt the rescuer when to stop CPR so the device can analyze the rhythm again and determine whether or not another shock is necessary.

The AED has two adhesive conductive pads that should be applied directly to the patient's chest after it is exposed and the patient is placed in the supine position. The sternal (STERNUM) pad should be placed over the sternum and the apical (APEX) should be placed on the left side of the chest over the lower half of the rib cage. The lead wires from the conductive pads should be inserted into the designated connection on the AED and the AED should be turned on. Make sure that the lead wires are connected firmly to both the conductive pads and to the AED. Stand clear and ensure that other bystanders are standing clear of the patient and the conductive pads during delivery of a shock.

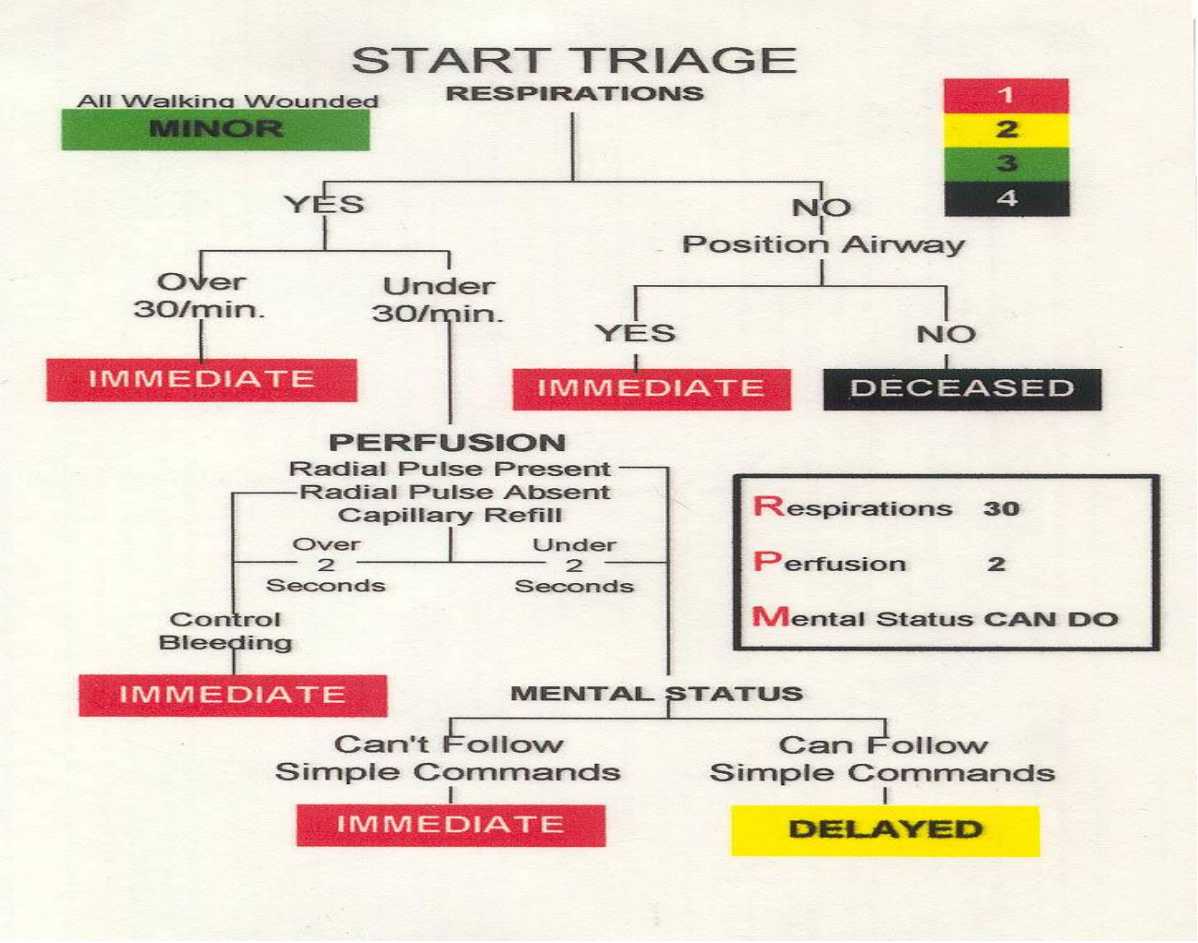
A shock should never be delivered to a patient with an AED applied when the AED or its wires are moving or if the patient is in a moving vehicle. Motion produces artifact that can be misinterpreted by the AED as ventricular tachycardia or ventricular fibrillation. The AED should be turned off and removed from the patient immediately if the patient regains consciousness or regains a pulse. AED use is contraindicated for patients under the age of 1 year of age. Pediatric AED pads or energy levels should never be used on an adult. Ideally, pediatric AED pads and energy levels should be used for victims between the ages of 1 and 8. If pediatric AED pads are not available, it is acceptable to use adult AED pads and energy levels on these patients.

Multiple Casualty Incidents

A multiple casualty incident occurs when an incident results in multiple victims requiring medical assistance. A disaster is defined as any event where the response needs exceed the response resource capabilities. Triage is required when the needs of the victims exceed the immediately available medical resources. Triage should be initiated in a disaster situation and considered in a multiple casualty incident.

The Ohio EMFTS Board has adopted the START (**S**imple **T**riage **A**nd **R**apid **T**ransport) triage system, and this is the triage system that has been incorporated into the State of Ohio emergency response plans. It is strongly recommended that the emergency medical responder be oriented and proficient in the triage system utilized by the EMS service that is responsible for responding to the potential multiple casualty incident site.

***START* Triage**



ADMINISTRATIVE AND OPERATIONAL GUIDELINES

ABUSE AND MALTREATMENT

Abuse and/or maltreatment is any act or series of acts of commission or omission by a caregiver or person in a position of power over the patient that results in harm, potential for harm, or threat of harm to a patient. Abuse and maltreatment occurs in all age groups, including vulnerable and less vulnerable populations. Unlike the emergency department staff, EMS professionals are in a unique position to witness and identify abnormalities or environmental risks in the patient's residence as well as unusual initial interactions between the patient and their caregiver, family members, or other bystanders.

Types of Abuse or Maltreatment
Abandonment
Emotional
Financial (particularly in geriatric population)
Human trafficking: Abduction or coercion into service (at times across international borders)
Neglect
Physical
Sexual

NOTE: According to the U.S. Department of Homeland Security, human trafficking is the second fastest growing criminal industry in our nation with drug trafficking currently maintaining the lead.

Physical Clues on Patient Assessment
A. Multiple bruises in various stages of healing
B. Age-inappropriate behavior (e.g. adults who are submissive or fearful, children who act in a sexually inappropriate way)
C. Pattern burns, bruises, or scars suggestive of specific weaponry used
D. Evidence of medical neglect for injuries or infections
E. Unexplained trauma to genitourinary systems or frequent infections to this system
F. Evidence of malnourishment and/or serious dental problems
G. Injuries not appropriate for patient's age or physical abilities (e.g. infants with injuries usually associated with ambulatory children, elders who have limited mobility with injury mechanisms inconsistent with their capabilities)
H. Tattoos and/or branding is common in victims of human trafficking as they are placed by the trafficker as a label of ownership. While some traffickers use their initials or a specific design in a tattoo, there has been a trend to use barcode-like tattoos. In addition to the chest, neck, or extremities, traffickers will also use less visible sites, such as the inferior surface of the victim's tongue, to place a tattoo symbolizing ownership.

Clues Arising from the Caregiver
A. Apathy about patient's current situation
B. Overreaction to questions about situation
C. Inconsistent histories from caregivers or bystanders regarding what happened
D. Information provided by caregivers or patient that is not consistent with injury patterns
E. Caregiver not allowing adult patient to speak for themselves, or who appears controlling

Environment Clues
A. Inadequate safety precautions or facilities where the patient lives
B. A state of squalor in the residence
C. Evidence of security measures that appear to confine the patient inappropriately (e.g. interior doors with padlocks or missing doorknobs, boards or other obstructive objects over intact windows)

Reporting Abuse and Maltreatment

A. It is imperative for EMS professionals to communicate and document all information to the emergency department and/or receiving facility's staff including, but not limited to, the patient's physical findings and emotional condition, the caregiver's demeanor and interactions, and the condition and abnormal findings of the environment noted while on scene
B. Reporting of suspected or confirmed child abuse and/or maltreatment is mandatory by Ohio law and provides civil immunity to the individual who files the report
C. Currently, there is no immunity provided for reporting suspected or confirmed abuse and/or maltreatment of adults; however, it is highly unlikely to be sued successfully for initiating an investigation unless it is an act of willful or wanton misconduct by the reporter
D. Adult Protective Services and Child Protective Services are excellent resources to initiate a report of suspected or confirmed abuse and/or maltreatment particularly in cases where patient transport is ultimately refused. A request placed to the EMS medical director to acquire social services consultation for the patient is another option.
E. Law enforcement agencies are also excellent resources to initiate a report of suspected or confirmed abuse and/or maltreatment particularly when it involves human trafficking or financial, physical or sexual abuse

Additional Facts

A. Child Abuse and Maltreatment:
   1. The estimated incidence of child maltreatment is approximately 9-10 per 1000 children
   2. The highest rate of victimization occurs in children younger than 1 year of age (24%).
   3. Approximately 80% of the perpetrators are the child's parents
   4. The estimated fatality rate for pediatric victims of maltreatment is 2-3 per 100,000 children.

B. Elder Abuse and Maltreatment:
   1. Approximately 90% of elder abusers are family members with higher rates occurring in care providers who feel burdened by their caregiving responsibilities, have psychiatric illness, or abuse drugs or alcohol
   2. Patients with dementia are at the greatest risk of abuse with approximately 50% having experienced maltreatment by their caregivers

C. Human Trafficking:
   1. The second fastest growing criminal industry in the United States
   2. Emergency departments are the primary source of medical care for victims as it facilitates the avoidance of detection and tracking
   3. Victims rarely presents a government-issued form of identification
   4. The trafficker often presents himself/herself as the victim's relative (e.g. sibling) or spouse to provide a more viable reason to remain with the victim during patient transport or during the course of medical care
   5. When accessing the healthcare system or entering a healthcare facility alone, the victim will often desire or demand a brief and/or accelerated evaluation or to be discharged after a brief period of time due to threats from the trafficker if time limits are exceeded or if the trafficker is monitoring the victim from a remote location

1) Rotor wing air medical services may be requested directly to the scene by:

    a) an on-scene EMS organization
    b) hospitals and healthcare facilities

2) A request for rotor wing air medical service response may be initiated when one or more of the following conditions exists:

    a) The patient's airway, breathing, or hemorrhage/circulation cannot be controlled by conventional means and the estimated arrival time of the air medical service is less than the time required for ground transport to the nearest hospital.

OR

    b) Air transport to a medical facility/the most appropriate trauma center will occur in a shorter time than ground transport to a medical facility/them most appropriate trauma center.

        i) Time estimation should be made from the time the patient is ready for transport to arrival at the medical facility/the most appropriate trauma center. This should include aircraft response to the scene.

Destinations

1) An appropriate medical facility/the most appropriate trauma center based upon, but not limited to the following factors:
    a) Time to definitive care
    b) Capabilities of receiving hospitals
    c) Patient wishes and family continuity
    d) Maximizing utilization of resources

COMMUNICATIONS

A member of the prehospital care team must contact medical control at the earliest time conducive to good patient care. This may be a brief early notification or “heads up”. It may mean that the hospital is contacted from the scene if assistance is needed in the patient's immediate care or permission is required for part of the patient care deemed necessary by the EMS professional in charge.

When possible, the member of the team most knowledgeable about the patient should be the one calling in the report.

Although all EMS professionals have been trained to give a full, complete report, this is often not necessary and may interfere with the physician's duties in the emergency department. Reports should be as complete but concise as possible to allow the physician to understand the patient's condition. It is not an insult for the physician to ask questions after the report is given. This is often more efficient than giving a thorough report consisting mostly of irrelevant information.

If multiple victims are present on the scene, it is advisable to contact medical control with a preliminary report. This should be an overview of the scene, including the number of victims, seriousness of the injuries, estimated on-scene and transport times to the control hospital or possible other nearby facilities. This allows preparation for receiving the victims and facilitates good patient care.

When contacting the receiving facility or medical direction, the patient report it should begin with the identification of the squad calling, and the highest level of care which is able to be provided to the patient (i.e., EMT, AEMT, or Paramedic), and the nature of the call (the physician or nurse to whom you need to speak directly).

Triage of Patient Reports

EMS systems may elect to adopt a classification matrix for communications and/or patient reports that is based upon patient clinical impression, condition, or acuity to facilitate the triage of patient reports. This classification system can be helpful to the receiving facility in the preparation to care for the patient. It is also helpful for the personnel receiving the run reports during the process of triaging multiple incoming patient reports.

The State of Ohio does not have a mandatory system for the triage of patient reports, and the State Board of Emergency Medical, Fire, and Transportation Services has not recommended any specific method. The following patient report triage system is a sample matrix and merely an example of one of many systems that exist.

Code Three patients – Most seriously ill or injured

This category is for the most seriously ill or injured patients, patients with a time-critical diagnosis, or those in cardiac arrest.

1. Type of squad: EMT, AEMT, Paramedic
2. Age and sex of patient:
3. Type of situation: Injury and/or illness
4. Specific complaint: Concise with pertinent information (e.g., chest pain, skull fracture)
5. Mechanism of injury: MVC / MCA / fall
6. Vital signs and patient assessment: BP / pulse / respirations / LOC / EKG
7. Patient care: Airway management, circulatory support, drug therapy
8. General impression: Stable or unstable
9. ETA to medical facility

Code Two patients – Significantly ill or injured
This category is for individuals who have significant signs or symptoms of illness or injury and, at this time, are stable.

1. Type of squad: EMT, AEMT, Paramedic
2. Age and sex of patient:
3. Type of situation: Injury and/or illness
4. Specific complaint: Concise with pertinent information (e.g., 10% 2nd degree burn to leg)
5. Mechanism: MVC / MCA / fall
6. Vital signs and patient assessment: BP / pulse / respirations / LOC / EKG
7. ETA to medical facility

Code One patients – Minor illness or injury

This category covers all minor illness or injury circumstances and the patient is in no danger of developing any significant life-threatening signs or symptoms.

1. Type of squad: EMT. AEMT, Paramedic
2. Age and sex of patient:
3. Type of situation: Injury and/or illness
4. Specific complaint: Concise with pertinent information (e.g., abdominal pain for two weeks)

Code One (non-transport) for minors

If after evaluation of a minor, the EMS professional and medical direction agree that the patient is a Code One, that minor can be left in the care of a responsible adult that is not the parent or legal guardian. The responsible adult may be a family friend, neighbor, school bus driver, teacher, school official, police officer, social worker, or other person at the discretion of medical direction and the EMS professional.

Once the above information is given, wait for further requests and/or orders from medical direction.

If the patient requires special care; (i.e., security; interpreter; additional people for lifting, isolation for infection, vermin infestation, or hazardous material) this information should also be relayed.

<u>Examples of Patients According to Triage Priority</u>

Code Three patients

- Airway and/or breathing difficulty
- Altered LOC
- Cardiac arrest
- Circulation difficulty (bleeding and/or shock)
- Complicated childbirth
- Chest pain
- Multiple fractures
- Open chest and abdominal injury
- Severe burns
- Severe head injury
- Severe poisoning
- Status epilepticus
- Time-critical diagnosis
- Unconsciousness

Code Two patients

- Acute abdominal pain
- Cervical spine injury
- Moderate burns
- Normal childbirth
- Psychiatric
- Violent and/or uncooperative patient

Code One patients

- Minor illness
- Minor injury

DO NOT RESUSCITATE/PALLIATIVE CARE GUIDELINES

BACKGROUND

In 1999, the Ohio Department of Health successfully established a Do-Not-Resuscitate Comfort Care (DNR Comfort Care) Protocol within the Ohio Revised Code. In the past, do-not-resuscitate (DNR) orders could not be honored without contacting medical direction when EMS or the 911 system was activated. The DNR Comfort Care Protocol will permit EMS to honor DNR orders without immediately contacting medical direction and provides guidelines for the prehospital management of these patients.

A DNR Comfort Care patient has completed a living will or has been issued a DNR order. The DNR Comfort Care protocol can be performed immediately by EMS for these patients. There is a subset of patients who are DNR Comfort Care-Arrest patients. This protocol is to be activated only in the event or a cardiac or respiratory arrest for these patients. EMS should follow the State of Ohio EMS Guidelines for these cases unless they present as a cardiac or respiratory arrest. In the event of a cardiac or respiratory arrest in a DNR Comfort Care-Arrest patient, the patient care should then be diverted to the DNR Comfort Care Protocol. For the purposes of this protocol, a cardiac arrest is defined as the loss of discernible audible and palpable pulse, with or without the loss of cardiac action/rhythm if on a cardiac monitor, or the sudden abrupt loss of heart function, and a respiratory arrest is defined as the absence of spontaneous respirations or presence of agonal respirations. The patient's DNR order or DNR identification should be checked very carefully to distinguish between the DNR Comfort Care and the DNR Comfort Care-Arrest classifications.

A DNR Comfort Care designation does not imply that the patient does not want to be treated for illnesses or injuries unrelated to a terminal disease process. For example, if the patient sustained a bee sting and was developing anaphylaxis, EMS providers should follow the anaphylaxis protocol. Medical direction should be contacted as soon as possible for further guidance and potential temporary revocation of the DNR Comfort Care order.

A reasonable effort should be made to positively identify the patient with DNR orders, but it is not required for the performance of this protocol. Patients of health care facilities do not require verification of identity when the DNR order is present on the patient chart. Acceptable methods of patient identification verification include a driver's license, passport, picture ID, institution identification band, or personal identification by a family member, caregiver, friend, or health care worker.

A patient's DNR Comfort Care or DNR Comfort Care-Arrest status can be confirmed by one of the following:

1. A DNR Comfort Care card or form completed for the patient.
2. A completed State of Ohio living will (declaration) form that states that the patient does not want CPR (in the case of a patient who has been determined by two doctors to be in a terminal or permanently unconscious state).
3. A DNR Comfort Care necklace or bracelet bearing the DNR Comfort Care official logo.

4. A DNR order signed by the patient's attending physician. **<u>NOTE</u>: Pursuant to Ohio Revised Code 4765.35(D)(1), 4765.37(D)(1), 4765.38(C)(1), and 4765.39(C)(1), certified Ohio EMS providers shall only accept written orders from a physician or cooperating physician advisory board. DNR orders signed by advanced practice registered nurses of physician assistants are not valid for EMS providers.**
5. A verbal DNR order is issued by the patient's attending physician, advanced practice registered nurse (APRN) or physician assistant (PA).

EMS providers are not required to search a patient to locate DNR identification. Copies of the documents listed under items 1, 2, or 4 are sufficient. The EMS provider must verify the identity of a physician or CNP/CNS issuing a verbal DNR order. Acceptable methods of verification include personal knowledge of the physician or CNP/CNS, a return telephone call to verify the information provided, or a list of practitioners with other identifying information such as addresses.

A DNR order is considered current if it is present in a health care facility's records or patient chart. A DNR order for a patient outside of a health care facility is considered current unless it is revoked by the patient or by the patient's attending physician or authorized healthcare provider of the person with the DNR order. EMS providers are not required to research whether a DNR order that appears to be current has been discontinued.

The DNR Comfort Care patient always retains the right to request resuscitation even if the protocol has been activated. A request for resuscitation by the patient revokes the DNR Comfort Care status and the EMS providers should immediately follow the resuscitation procedures in the State of Ohio EMS Guidelines.

Once the DNR Comfort Care protocol has been activated, the wishes of family members or bystanders demanding or requesting resuscitation should not be honored. Any and all resuscitative measures should continue to be withheld. Attempts should be made to help the family understand the dying process and the patient's choice not to be resuscitated.

When the DNR Comfort Care Protocol has been activated, EMS personnel will provide the following care as clinically indicated:

1. Conduct an initial assessment
2. Perform basic medical care
3. Clear airway of obstruction or suction
4. If necessary, may administer oxygen, CPAP, or BiPAP
5. If necessary, may obtain IV access for hydration or pain medication to relieve discomfort, but not to prolong death
6. If possible, may contact other appropriate health care providers (e.g., hospice, home health, physician/APRN/PA)

When the DNR Comfort Care Protocol has been activated, EMS personnel will not perform the following:

1. Perform CPR
2. Insert artificial airway adjunct
3. Administer resuscitation medications with the intent of restarting the heart or breathing
4. Defibrillate, cardiovert, or initiate pacing
5. Provide respiratory assistance other than the methods listed above.
6. Initiate continuous cardiac monitoring.

NOTE: If you have responded to an emergency situation by initiating any of the "will not" actions prior to confirming that the DNR Comfort Care Protocol must be activated, discontinue them when you activate the protocol. You may continue respiratory assistance, IV medications, etc., that have been part of the patient's ongoing course of treatment for an underlying disease.

If family or bystanders request or demand resuscitation for a person for whom the DNR Comfort Care Protocol has been activated, do not proceed with resuscitation. Provide comfort measures as outlined above and try to help the family members understand the dying process and the patient's choice not to be resuscitated.

When the DNR Comfort Care protocol is performed, the suggested documentation on the patient care report should include the following information:

1. The document identifying the DNR Comfort Care status of the patient.
2. The method of verification of the patient's identity, if any was found through reasonable efforts.
3. DNR Comfort Care or DNR Comfort Care-Arrest classification.
4. All actions taken to implement the DNR Comfort Care protocol.
5. Any and all unusual events occurring enroute or on scene including interactions with family members, bystanders, or health care providers.

Any and all questions or concerns that arise during the management of DNR Comfort Care patients may be directed to and discussed with medical direction for assistance and guidance.

GUIDELINES FOR PATIENT REFUSAL OF TREATMENT OR TRANSPORT

GENERAL STATEMENT

A. Competent adult patients have the right to give consent for, or refuse, any or all treatments. EMS should attempt to obtain vital signs on all patients. Competent adult patients also have the right to give consent for, or refuse ambulance transport. Each agency should have established guidelines for patient consent and refusal. A performance improvement (PI) process should be in place to review these runs.

1. Consent

   a. When waiting to obtain lawful consent from the person authorized to make such consent would present a serious risk of death, serious impairment of health or would prolong severe pain or suffering of the patient, treatment may be undertaken to avoid those risks without consent. <u>In no event should legal consent procedures be allowed to delay immediately required treatment.</u>

   b. Adults
      A competent patient may withdraw consent for treatment at any time.

      i. Prior to discontinuing or withdrawing treatment, the EMT shall determine if the patient is competent

      ii. Mental Competence - Decision Making Capability
         a) A person is mentally competent if he:
            1) Is capable of understanding the nature and consequences of the proposed treatment.
            2) Has sufficient emotional control, judgment, and discretion to manage his own affairs.

         b) Ascertaining that the patient is oriented, has an understanding of what happened and may possibly happen if treated or not treated, and a plan of action - such as whom he will call for transportation home - should be adequate for these determinations.

      iii) Impairment
         a) Patients may be considered incompetent to refuse care and/or transportation when they appear impaired. Patients who appear impaired include:
            Suicidal Patients
            Patients impaired by alcohol
            Patients impaired by illicit drugs
            Patients impaired by prescription or nonprescription drugs
            Patients impaired by medical conditions such:
               Hypoglycemia
               Hypoxemia
               Hypoperfusion
               Head trauma
               Psychiatric conditions

c. Pediatric
   i. A critically ill or injured child should be treated and transported immediately
   ii. In non-emergency cases involving minors, consent should be obtained from the parent or legal guardian prior to undertaking any *treatment.* All children must be evaluated for acuity of illness, regardless of obtaining parental consent.
   iii. Each agency should have policies which delineate situations in which children may be left at the scene, emancipated status, and instances when medical control should be contacted.

PROCEDURE FOR REFUSAL

A. If a patient wishes to refuse treatment, examination or transportation, each agency should have steps which will be followed and optimally all of these runs will be reviewed as part of the PI process.

B. The completion of a Patient Refusal Checklist by the EMS professional is suggested (see enclosed example)
   1. The patient must be advised of the benefits of treatment and transport as well as the specific risks of refusal of treatment and transport.
   2. The patient must be able to relate to the EMS professional in his or her own words what the risks and benefits of refusal of transport.
   3. The patient will be provided with a refusal information sheet, also attached. A copy of this refusal information sheet or the refusal section of the check list will be signed by the patient, dated, and both will be kept with the patient's file.

EMS PATIENT REFUSAL CHECKLIST

1. ASSESSMENT OF PATIENT (CIRCLE APPROPRIATE RESPONSE)

ALCOHOL / DRUGS INGESTION PER HISTORY OR EXAM	Y	/	N
ALTERED LEVEL OF CONSCIOUSNESS	Y	/	N
HEAD INJURY	Y	/	N

ORIENTED TO: PERSON PLACE TIME SITUATION

2. MEDICAL CONTROL

CONTACTED VIA: PHONE RADIO TIME _____
UNABLE TO CONTACT ( ) MEDICAL CONTROL PHYSICIAN _____

If medical control not able to be contacted, explain in comment section of checklist
ORDERS:

( ) INDICATED TREATMENT / TRANSPORT MAY BE REFUSED BY PATIENT
( ) USE REASONABLE FORCE / RESTRAINT TO PROVIDE TREATMENT
( ) USE REASONABLE FORCE AND / OR RESTRAINT TO TRANSPORT

OTHER _____

3. PATIENT ADVISED (CIRCLE APPROPRIATE RESPONSE)

*	MEDICAL TREATMENT / EVALUATION NEEDED	Y	/	N
*	AMBULANCE TRANSPORT NEEDED	Y	/	N
*	FURTHER HARM MAY RESULT WITHOUT MEDICAL TREATMENT OR EVALUATION	Y	/	N
*	TRANSPORT BY MEANS OTHER THAN AMBULANCE COULD BE HAZARDOUS IN LIGHT OF THE PATIENT'S PRESENT ILLNESS OR INJURY	Y	/	N
*	PATIENT PROVIDED WITH REFUSAL ADVICE SHEET	Y	/	N
*	PATIENT WOULD NOT AMLEPT REFUSAL SHEET	Y	/	N

4. DISPOSITION

( ) REFUSED ALL EMS SERVICES
( ) REFUSED TRANSPORT, AMLEPTED FIELD TREATMENT
( ) REFUSED FIELD TREATMENT, AMLEPTED TRANSPORT
( ) RELEASED IN CARE OR CUSTODY OF SELF
( ) RELEASED IN CUSTODY OF LAW ENFORCEMENT AGENCY
AGENCY _____
OFFICER _____
( ) RELEASED IN CARE OR CUSTODY OF RELATIVE OR FRIEND
NAME _____
RELATION _____

5. COMMENTS

_____
_____
_____
___

EMS PROFESSIONAL_____ DATE _____ TIME _____

OFFICER _____ DATE _____ TIME _____

REFUSAL INFORMATION SHEET

PLEASE READ AND KEEP THIS FORM

This form has been given to you because you have refused treatment and/or transport by the Emergency Medical Service. Your health and safety are our primary concern, so even though you have decided not to accept our advice, please remember the following:

1. The evaluation and/or treatment provided to you by EMS professionals is not a substitute for medical evaluation and treatment by a doctor. We advise you to get medical evaluation and treatment.

2. Your condition may not seem as bad to you as it actually is. Without treatment your condition or problem could become worse. If you are planning to get medical treatment, a decision to refuse treatment or transport by the EMS may result in a delay which could make your condition or problem worse.

3. Medical evaluation and/or treatment may be obtained by calling your doctor, if you have one, or by going to any hospital emergency department in this area, all of which are staffed 24 hours a day by emergency physicians. You may be seen at these emergency departments without an appointment.

4. If you change your mind or your condition becomes worse and you decide to accept treatment and transport by the Emergency Medical Service, please do not hesitate to call us back. We will do our best to help you.

5. [ ] **If the box at the left has been checked,** it means that your problem or condition has been discussed with an emergency physician at the medical control hospital by radio or telephone, and the advice given to you by the Emergency Medical Service has been issued or approved by the emergency physician.

*** I have been informed of the dangers of my not being treated and/or transported by the Emergency Medical Services, for my condition, for treatment by an emergency department or private physician.

I release _____ and consulting hospital their employees and officers from all liability for any adverse results caused by my decision.

I have received a copy of this information sheet.

Signature:

_____

Circle one: Patient Spouse Parent Guardian

Print Name:

_____

Signature of EMS professional: _____Witness: _____

Print Name: _____ _____

Report Number: _____ Date: _____

SAMPLE OF A PATIENT NON-TRANSPORT POLICY

A number of EMS calls result in non-transport of the patient or victim. If an individual is not transported by the squad, the following guidelines will apply:

1. In the event of a patient assist call and no emergency medical services are rendered, a report should be made but medical control need not be contacted.

2. If the patient refuses treatment or transport, the patient refusal procedure should be followed.

3. If the patient is requesting transport and the EMS professionals in charge does not feel it is necessary to transport the patient, medical control must be contacted and approve the EMS refusal. This includes any case that might be transported by car or private ambulance. It is advisable to compete an approved form of documentation (See the sample of a non-transport advisory form) and provide it to the patient.

4. Non-transport for minors

   If after evaluation of a minor, the EMS professional and medical control agree that the patient has a minimal illness or injury or voices no complaints, that minor can be left in the care of a responsible adult that is not the parent or legal guardian. The responsible adult may be a family friend, neighbor, school bus driver, teacher, school official, police officer, social worker, or other person at the discretion of medical control and the EMS professional.

A SAMPLE OF A NON-TRANSPORT ADVISORY FORM

You have been evaluated by an EMS professional in communication with a physician over a radio. It has been determined that you do not need an ambulance at this time. THIS DOES NOT MEAN THAT YOU SHOULD NOT BE SEEN BY A PHYSICIAN. THE EVALUATION AND TREATMENT YOU RECEIVED WAS TO DETERMINE THE SEVERITY OF YOUR PROBLEM AND WHETHER OR NOT YOU NEEDED AN AMBULANCE; IT IS NOT A SUBSTITUTE FOR FINAL EVALUATION AND TREATMENT BY A PHYSICIAN.

We advise you to see a physician at this time. You may decide that you don't need to see a physician now, but if you don't then you must take the risk that you will not receive treatment that you need and that this may cause problems for you later on. The following may help you decide:

1. If you have a cut, only a physician should decide whether or not you need stitches. Most physicians recommend stitches within 8 hours because after that the risk of an infection becomes much greater.

2. If you have a cut, scrape or burn and have not had a tetanus (lockjaw) shot within 5 years, you may need one. You do not need to get a tetanus shot immediately, but you should not delay this more than 24 hours.

3. Many burns do not appear to be as bad as they really are. Also, serious problems can develop from some burns which may be prevented by early medical treatment.

4. If the pain or other discomfort you had has gone away, it does not necessarily mean the problem that caused it has gone away.

5. If you decide you don't need to see a physician and then change your mind, don't wait. The longer you wait, the more problems you may have.

USE COMMON SENSE!!!

"IF I DON'T HAVE A PHYSICIAN, OR CAN'T SEE MY PHYSICIAN NOW, WHAT CAN I DO?"

GO TO THE NEAREST EMERGENCY DEPARTMENT OR CALL BACK EMERGENCY MEDICAL SERVICES.

Patient Signature _____ Date _____

EMT Signature _____

Report # _____

PATIENTS WITH FUNCTIONAL NEEDS

In 1980, the World Health Organization created a classification called the International Classification of Impairments, Disabilities, and Handicaps (ICHDH) to identify populations with health components of special needs and/or disability. The list of conditions cited under this classification has been expanded several times over the years and remains in a fluid state. In 2001, the World Health Assembly amended the title of this classification to the International Classification of Functioning, Disability, and Health (ICF), and over time, the term "special needs" has been replaced with "functional needs". In the United States, the Americans with Disabilities Act of 1990 (ADA) was the initial broad civil rights law to address individuals with disabilities. Many states, including Ohio, passed similar legislation to support individuals with disabilities and patients with functional needs. Per the ADA, disability is defined as "a physical or mental impairment that substantially limits a major life activity".

EMS professionals must be cognizant of the protocols provided by the EMS medical director for the prehospital management of functional needs patients as well as the existing state and federal legislation. Most importantly, the quality of medical care should not intentionally be diminished or adversely altered during the triage, treatment, and transport of functional needs patients. Although your EMS medical director may provide additional parameters and protocols, the following provides a basic overview of the patient management scenarios most frequently seen by EMS professionals.

Communication Barriers

Language Barriers: EMS professionals may accept the assistance of family members or bystanders during communication with a patient who has expressive and/or receptive aphasia, is nonverbal, or who speaks a different language than the EMS professional. Documentation of the identification of the person assisting with the communication and, if possible, transport of this individual to the hospital with the patient is advised. For differences in language, there are a number of products on the market (translation cards, symbols, telephone-accessible services with live interpreters, etc.) specifically created for the medical environment to assist EMS professional in obtaining a patient's chief complaint, medical history, medication, allergies, and other critical information. The methods through which the patient augments their communication skills (eye blinking, nodding, etc.) should be noted and communicated to the receiving facility.

Sensory Barriers: Sensory barriers, i.e. visual or auditory impairment, may present challenges in the prehospital setting, particularly during the acquisition of a patient history and the completion of patient assessment. The methods through which the patient augments their communication skills (use of Braille, sign language, lip reading, etc.) should be noted and communicated to the receiving facility. Written communication between the patient and the EMS professional is part of the medical record, even if it is on a scrap sheet of paper, and it should be retained with the same collation, storage, and confidentiality policies and procedures that are applicable to the written or electronic patient care report.

Assistance Adjuncts

Assistance devices: The devices that facilitate the activities of life for the patient with functional needs should be noted. These devices include, but are not limited to, magnifiers, white or sensory canes, hearing aids, tracheostomy speaking valves, or extremity prostheses. These devices should accompany the patient if possible during transport as their availability to the patient can facilitate the interaction between the patient and the healthcare provider and enhance the patient's safety and overall well-being.

Service Animals: A service animal, usually a dog, is not classified as a pet and should, by law, always be permitted to accompany the patient. A service animal as defined by the ADA is "any guide dog, signal dog, or other animal individually trained to do work or perform tasks for the benefit of an individual with a disability, including, but not limited to guiding individuals with impaired vision, alerting individuals with impaired hearing to intruders or sounds, providing minimal protection or rescue work, pulling a wheelchair, or fetching dropped items." The service animal is not required to wear a vest or a leash, and it is illegal to make a request for special identification or documentation from the service animal's partner. EMS professionals may only ask the patient if the service animal is required because of a disability and the form of assistance the animal has been trained to perform. EMS professionals are not responsible for the care of service animals. If the patient is incapacitated and cannot personally care for the service animal, a decision can be made whether or not to transport the animal in this situation. Animals that provide emotional support, comfort, or companionship do not quality as service animals.

HEAVY PATIENTS

GENERAL CONSIDERATIONS

Less than one percent of the population has a weight in excess of 300 lbs. This means that in any community there may be one or more individuals who fall into this extreme. As patients, these individuals are frequently classed as high risk because of the increased medical complications associated with their excess weight. In the EMS system they present the additional problem of movement and transportation. These individuals have the right to expect prompt and expert emergency medical care. Therefore, in order to facilitate the care of these individuals without risking the health of EMS workers, the following protocol is established.

1. In managing a patient with weight over 300 lbs., consider moving the patient with at least 6 individuals to assist. At the scene, as many EMS professionals that can be mobilized may be supplemented by police or other safety personnel as appropriate. If 6 individuals are not available, mutual aid will be required.

2. It may be necessary to remove doors, walls or windows. The situation is no different than extrication from a vehicle, although property damage may be higher. At all times the patient's life must be the first priority.

3. The patient is to be placed on at least 2 (double) backboards or other adequate transfer device for support.

4. The patient is to be loaded on a cot that is in the down position, and the cot is to be kept in the down position at all times.

5. It is NECESSARY TO NOTIFY THE HOSPITAL WELL IN ADVANCE of arrival so that preparations can be completed in a timely fashion.

6. If individuals in the community are known to fall within this special category it is appropriate to inform them in advance of the type of assistance that they can expect from the EMS system, and help them make plans well in advance to assist you. When calling for the squad, and if they identify themselves and their special needs, it will promote the timeliness of your efforts.

ON SCENE EMS INTERVENER

On an EMS run where an unknown EMS professional from outside the responding EMS agency wishes to intervene in the care of patients, the following steps should be initiated:

1. Ideally, if no further assistance is needed, the offer should be declined.

2. If the EMS intervener's assistance is needed or may contribute to the care of the patient:

    a. An attempt should be made to obtain proper identification and confirm the possession of a valid Ohio EMS certificate. Acceptance of borderline states' EMS certification or licensure documents is at the discretion of individual EMS services. Notation of the EMS intervener's name, address and certification numbers must be documented on the run report.

3. Significant involvement with patient care or variance from protocols will require the EMS intervener to accompany the patient to the hospital.

PHYSICIAN AT THE SCENE

GOOD SAMARITAN PHYSICIAN

This is a physician with no previous relationship to the patient, who is not the patient's private physician, but is offering assistance in caring for the patient. The following criteria must be met for this physician to assume any responsibility for the care of the patient:

1. Medical control must be informed and give approval.

2. The physician must have proof they are a physician. They should be able to show you their medical license. Notation of physician name, address, and certification numbers must be documented on the run report.

3. The physician must be willing to assume responsibility for the patient until relieved by another physician, usually at the emergency department.

4. The physician must not require the EMS professional to perform any procedures or institute any treatment that would vary from protocol and/or procedures outlined in the protocols provided by the medical director of the EMS agency or is not within the Ohio EMS scope of practice.

If the physician is not willing or able to comply with all the above requirements, his assistance must be courteously declined.

PHYSICIAN IN HIS/HER OFFICE, OR URGENT CARE CENTER

1. EMS should perform its duties as usual under the supervision of Medical Control or by protocol.

2. The physician may elect to treat the patient in his office.

3. The EMS professional should not provide any treatment under the physician's direction that varies from protocols provided by the medical director of the EMS agency or is not within the Ohio EMS scope of practice. If asked to exceed these boundaries, the EMS professional should decline the request until contact is made with Medical Control.

4. Once the patient has been transferred into the squad, the patient's care becomes entirely under medical control.

RESTRAINTS

GENERAL GUIDELINES

A. Soft restraints are to be used only when necessary in situations where the patient is potentially violent and may be of danger to themselves or others. Patients who are clinically competent retain a right to refuse transport. EMS professionals must remember that aggressive violent behavior may be a symptom of medical conditions such as but not limited to:

    1. Head trauma
    2. Alcohol/drug related problems
    3. Metabolic disorders (i.e., hypoglycemia, hypoxia, etc.)
    4. Psychiatric/stress related disorders

B. Patient health care management remains the responsibility of the EMS professional. The method of restraint shall not restrict the adequate monitoring of vital signs, ability to protect the patient's airway, compromise peripheral neurovascular status or otherwise prevent appropriate and necessary therapeutic measures. It is recognized that evaluation of many patient parameters requires patient cooperation and thus may be difficult or impossible.

C. All restraints should have the ability to be quickly released, if necessary.

D. The person who was responsible for applying a restraining device that requires a key or special releasing device must physically remain with the patient regardless of the vehicle of transport in the interest of the patient's safety. This policy is not intended to negate the need for law enforcement personnel to use appropriate restraint equipment to establish scene control.

E. Patients should be transported in the supine or decubitus position to ensure adequate respiratory and circulatory monitoring and management. The prone position should be a position of last resort and rarely used. All restrained patients should be placed on a stretcher with adequate foam padding particularly underneath the head if the patient is positioned in the prone position. Extremity restraints should be secured to the stationary portion of the stretcher frame in a fashion where they can be removed quickly in the event of an emergency. Stretcher straps should be placed on all patients as these are analogous to seatbelts during transport. Restraint of the extremities in a spread eagle fashion significantly reduces the strength the patient can generate from the large muscle groups. Restraints that use multiple knots or that may restrict chest wall motion are unacceptable.

F. Restrained extremities should be monitored for color, nerve and motor function, pulse quality, and capillary refill at the time of application and frequently thereafter. The patient's ventilatory status, pulse oximetry, or waveform capnography should be monitored during transport.

G. After addressing and/or treating metabolic causes of aggressive or violent behavior, administration of a benzodiazepine and/or antipsychotic as a chemical restraint should be considered.

H. Restraint documentation on the EMS report shall include:

    1. Reason for restraint
    2. Agency responsible for restraint application (i.e., EMS, Police)
    3. Documentation of serial cardio-respiratory status and peripheral neurovascular status

I. Prehospital care providers reserve the right to refuse elective transport of patients who are deemed too violent or uncooperative to be controlled by the restraint methods and devices permitted by their prehospital protocols. The safety of prehospital care providers will be maintained at all times during transport. The prehospital care provider reserves the right to request completion of transport by law enforcement personnel. The prehospital care provider may administer an appropriate dose of a benzodiazepine and/or antipsychotic as a pharmacological restraint prior to transport of the patient. The prehospital care provider reserves the right to suggest to medical facilities the use of adequate pharmacological restraints prior to acceptance of the patient. A decision to refuse elective transport of a violent or uncooperative patient may be made by any member of the prehospital care team or its supervisor. Medical direction may be contacted at any time for advice or for pharmacological orders.

TRANSPORT TO FREE-STANDING EMERGENCY CARE CLINICS

EMS units should not transport patients to free-standing emergency care clinics (***free-standing emergency departments are acceptable destinations***), urgent care facilities, or private physicians' offices in response to emergency calls except:

1. When directed by medical direction.

2. If specifically authorized by on-line medical direction.

3. When the EMS unit is following protocols approved by medical direction that authorize such transports under certain circumstances.

4. When the EMS unit is a private service responding to a call in which the patient and/or the family requests transport to such facility and the patient is clearly in stable condition.

From the perspective of an EMS system, free-standing emergency care clinics are no different, and no more appropriate as an EMS transport destination, than any private physician's office, unless they have been through a health system agency or regional EMS review.

A free-standing emergency clinic is not automatically expected to be incorporated into the EMS system. However, in certain circumstances these facilities may be a valuable component.

NON-HOSPITAL TRANSFER POLICY

GUIDELINES FOR TRANSFER FROM A NON-HOSPITAL LOCATION TO A NON-HOSPITAL LOCATION: HOME TO HOSPICE; HOSPICE TO HOME

A. On occasion, the out-of-hospital EMS professional(s) will be called upon to transport a patient from a non-hospital location to another non-hospital facility such as hospice center or from hospice to home or a doctor's office. The provider(s) will follow the written or pre-existing orders of the patient's physician or physician approved hospice center orders for the transport. At times, a hospice nurse may arrive or already be at the scene. He/she should be able to help review orders and/or advance directives such as DNR or "Support Care" orders to enable transport in accordance with the wishes of the patient and his/her family. A hospice patient by definition is DNR.

   Medical control does not need to be contacted unless the DNR is revoked. However, if the EMS professional(s) feels the need to contact medical control for advice or direction, the professional(s) will clearly advise medical control of the patient's terminal condition and DNR status.

SPECIALTY CARE

OVERVIEW

As its foundation has solidified, the depth and breadth of the capabilities and responsibilities of EMS has significantly expanded and matured. The health care delivery by EMS personnel is no longer limited to the confines of an ambulance.

Specialty care within the practice of EMS has been in existence for many years. This chapter was added to the State of Ohio Adult EMS Guidelines and Procedures Manual in 2018 and, analogous to the other chapters, will be dynamic over time. This chapter is not all-inclusive of the sectors of specialty care within EMS. The content of this chapter is solely directed at the sectors that have been formally cited by the EMFTS Board or within the Ohio Revised Code or Ohio Administrative Code.

Various institutions and organizations offer specialty care education and training, and some programs provide documentation of course completion or certification. Regardless of these documents or the training provided, the EMS provider certifications and professional titles recognized and legislatively established in the State of Ohio are emergency medical responder, emergency medical technician, advanced emergency medical technician, and paramedic. The terms or descriptors such as “community paramedic”, “critical care paramedic”, or “tactical EMS” do not exist in Ohio EMS legislation or regulation and are not recognized by the EMFTS Board. Regardless of the specialty care education or training provided, a certified Ohio EMS provider must comply with the following:

1. Function under the authority of a medical director who meets the qualifications cited in Ohio Administrative Code 4765-3-05
2. Restrict the performance of skills to the Ohio EMS scope of practice authorized by the EMFTS Board for the associated level of Ohio EMS certification.

In addition, the EMS medical director must provide authorization, a written protocol, training, continuing education, and a quality assurance program for all of the skills performed by the EMS providers under his or her medical direction. Regardless of the training or education provided, the EMS medical director may not permit skills that exceed the Ohio EMS scope of practice authorized by the EMFTS Board for the associated level of Ohio EMS certification.

MOBILE INTEGRATED HEALTHCARE

In August 1996, the National Highway Transportation Safety Administration, the agency that oversees EMS at the federal level, published a pinnacle report, *Emergency Medical Services: Agenda for the Future* (*Agenda for the Future*). At the beginning of this document, there is a statement titled "The Vision" that has embraced as the overarching quest and purpose of EMS. "The Vision" states "Emergency medical services (EMS) of the future will be community-based health management that is fully integrated with the overall health care system. It will have the ability to identify and modify illness and injury risks, provide acute illness and injury care and follow-up, and contribute to treatment of chronic conditions and community health monitoring. This new entity will be developed from redistribution of existing health care resources and will be integrated with other health care providers and public health and public safety agencies. It will improve community health and result in more appropriate use of acute health care resources. EMS will remain the public's emergency medical safety net." With respect to the integration of health services, the *Agenda for the Future* provided the following recommendations for EMS:

- Expand the role of EMS in public health
- Involve EMS in community health monitoring activities
- Integrate EMS with other health care providers and provider networks
- Incorporate EMS within health care networks' structure to deliver quality care
- Be cognizant of the special needs of the entire population
- Incorporate health systems within EMS that address the special needs of all segments of the population

Emergency Medical Services at the Crossroads, a report published by the Institute of Medicine of the National Academies in June 2006, noted that the EMS systems remain fragmented. The report, like the *Agenda for the Future*, continued to support the evolution and incorporation of EMS as an integral component of the overall healthcare system. One of the recommendations was for the Department of Health and Human Services, the Department of Transportation, and the Department of Homeland Security to jointly undertake a detailed assessment of the emergency and trauma workforce capacity, trends, and future needs, and develop strategies to meet these needs in the future. The report describes a vision of a 21st century emergency care and trauma system where 9-1-1 dispatchers, EMS personnel, medical providers, public safety officers, and public health officials are interconnected and united to ensure that each patient receives the most appropriate care, at the optimal location, with minimal delay.

Over the past several decades, the model of medical care delivery has shifted significantly from the inpatient setting to the outpatient setting. The stimuli for the generation of this model includes, but is not limited to, advancements in medical technology and treatment modalities, a need for improved fiscal oversight and allocation of resources, and the desire of the general public to access and receive care without enduring a separation from their residential environment. In addition, our nation's philosophy of acceptable healthcare has shifted its focus placing a greater emphasis on health maintenance and on illness and injury prevention.

Mobile integrated healthcare is another step toward more aggressive maintenance of health and wellness in an outpatient setting, and EMS providers play an integral role in its administrative and operational framework. Secondary benefits of an effective mobile integrated healthcare system include the creation of a closer relationship between a patient and their local healthcare assets and the potential reduction in the need for inpatient care.

On June 30, 2015, the Ohio Revised Code was amended to allow Ohio EMS providers to perform services in non-emergency settings. The new law, Ohio Revised Code 4765.31, created a path for mobile integrated healthcare to exist in Ohio. Per this law, Ohio EMS personnel including, but not limited to, community paramedics, providing non-emergency care must:

1. Function within the Ohio EMS scope of practice that is determined by the State of Ohio Board of Emergency Medical, Fire, and Transportation Services Board (EMFTS Board)
2. Function under the authority of a medical director that meets the qualifications cited in the Ohio Administrative Code 4765-3-05.

While both organizations can offer support, it is not the directive nor is it the desire of the EMFTS Board or the Ohio Department of Public Safety, Division of EMS to be prescriptive or to mandate the structure of a mobile integrated healthcare system. There are several advisories that have been approved by the National EMS Advisory Council and presented to the Federal Interagency Committee on EMS that support key supportive and operational elements related to mobile integrated healthcare such as reimbursement for services provided and the completion of a practice analysis to guide education, provider qualifications, and scopes of practice specific to the specialty.

The foundation of a mobile integrated healthcare system is based solely in the heart of the community. The local healthcare consumers and providers are in the best position to identify the deficiencies in medical resources and access to care. Therefore, a community's caregivers, consumers, patients, and healthcare stakeholders must unite in a spirit of collaboration to build a mobile integrated healthcare system that fills the existing gaps in medical care delivery and best meets the identified needs. Mobile integrated healthcare is a team sport, and the contributions of allied healthcare professionals, including EMS providers, are essential elements required for creation and launch of a successful system.

Austere environments can be encountered when dispatched to any scene or may unpredictably evolve after arrival on scene. Lessons learned from military experience and historic tragic events in the civilian setting have taught us that the identification and rapid treatment of life-threatening injuries saves lives. The patient treatment measures that were first crafted by the military as Tactical Combat Casualty Care has evolved into the civilian model, Tactical Emergency Casualty Care (TECC) which was created by the Committee on Tactical Emergency Casualty Care (C-TECC). While the TCCC model was primarily based on relatively health and young military personnel, the guidelines offered within TECC encompass the needs of the entire population which includes pediatric and geriatric patients and those with co-morbid conditions.

The patient care measures cited within TECC were created for all EMS providers. The use of TECC is not limited to specialty care teams such as rescue task forces or tactical EMS units. TECC can be utilized by all persons who are willing and able to respond, including non-medical personnel such as law enforcement personnel (First Responders with a Duty to Act) and civilians (First Care Providers), to a level appropriate to their respective training and/or scope of practice.

As demonstrated by many events involving austere environments in the civilian setting, the initial effective emergency care is frequently provided by the First Care Provider (formerly known as the bystander or layperson). Their basic actions have been the critical factor in preserving life until EMS arrives and the patient is transported to an appropriate facility for definitive interventions. While the C-TECC has produced guidelines for several levels of responders, the following guidelines were written specifically for those trained and authorized to provide basic or advanced life support. It is important to note that, within an austere environment, the reference to the "patient" and the associated treatment interventions encompasses any injured person on scene including the victim, a fellow EMS professional, law enforcement officer, or alleged perpetrator as well as self-care. In addition, First Care Providers and/or First Responders with a Duty to Act should be tasked to provision of TECC to patients, at the level appropriate with their skill and training, rather than being dismissed upon the arrival of EMS personnel. Additional lives can be saved with their additional manpower and assistance in the provision of basic life-saving TECC measures to patients unless the threat warrants evacuation of the TECC providers from the scene.

The guidelines for patient care by EMS are first driven by definition of the zone in which patient care is needed. These zones are as follows:

Hot Zone – An area of direct or immediate threat
Warm Zone – An area of indirect threat where the site has been cleared by law enforcement personnel, but not secured
Cold Zone – An area where there is no known threat

The current TECC guidelines for rapid life-saving treatment in hot and warm zones, modified to align with the Ohio EMS scope of practice, are cited below. The patient care provided in the cold zone should be the standard traditional care based upon the patient's injury or illness and the patient's condition. The vast majority of these patient care measures can be performed by all Ohio EMS providers except where noted due to the parameters of the Ohio EMS scope of practice. **All patient care measures require authorization, a written protocol, training, continuing education, and a quality assurance program from the EMS medical director.**

Direct Threat Care/Hot Zone

1. Mitigate any immediate threat and move to a safer position (e.g. initiate fire attack, coordinate ventilation, move to safe haven, evacuate from an impending structural collapse, etc.).
   a. Recognize that threats are dynamic and may be ongoing, requiring continuous threat assessments.

2. Direct the injured first responder to stay engaged in the operation if able and appropriate.

3. Move patient to a safer position:
   a. Instruct the alert, capable patient to move to a safer position and apply self-aid.
   b. If the patient is *responsive* but is injured to the point that he/she cannot self-evacuate, a rescue plan should be devised.
   c. If a patient is *unresponsive*, weigh the risks and benefits of a rescue attempt.
      i. Remote medical assessment techniques should be considered to identify patients who are dead or have apparently non-survivable wounds.
      ii. Rescue attempts should only be initiated on patients with wounds that appear to be survivable.

3. Stop life threatening external hemorrhage with a tourniquet. Consider moving to safety prior to application of the tourniquet depending on the level of immediate threat, severity of the bleeding and the evacuation distance to safety.

4. Apply direct pressure to wound, or direct capable patient to apply direct pressure to own wound and/or (self-apply) own effective tourniquet.
   a. Tourniquet application:
      i. Apply the tourniquet(s) as high on the limb as possible, including over the clothing if present.
      ii. Tighten as much as possible and move to safety.

5. Consider quickly placing patient, or directing the patient to be placed, in a position to protect airway.

Indirect Threat Care/Warm Zone

1. Any injured person or responder with a weapon should have that weapon made safe/secured once the threat is neutralized and/or if mental status is altered.

2. Major Bleeding:
   a. Assess for and control all sources of major bleeding:
      i. If not already done during direct threat/hot zone care, use a tourniquet or an appropriate pressure dressing with deep wound packing (either plain gauze or, if available, hemostatic gauze) to control life-threatening external hemorrhage that is anatomically amenable to such treatment.
         - *Tourniquet application*: Apply the tourniquet over the clothing as proximal as possible and tighten as much as possible, or if situation allows, consider fully exposing and evaluating the extent of the wound before applying tourniquet directly to the skin 2-3 inches above wound (Do not apply over the joint) and tightening as much as possible.
         - *Pressure dressing application*: apply directly to the skin after the wound has been packed with either plain or hemostatic gauze to translate the surface pressure exerted by the bandage to the bleeding vessels deep in the wound.
         - For any traumatic total or partial amputation, a tourniquet should be applied in an appropriate location regardless of bleeding
      ii. If major bleeding is in anatomic junctional area where that bleeding cannot be easily controlled by direct pressure and/or hemostatic dressings, apply a junctional tourniquet device if immediately available.
   b. Reassess all tourniquets that were applied during direct threat/hot zone care. Consider checking a distal pulse, or if the situation allows, fully exposing the injury to evaluate the wound for effective hemorrhage control and to determine if the tourniquet is needed.
      i. Tourniquets that are determined to be both *necessary and effective* in controlling hemorrhage should remain in place if the patient can be evacuated within 2 hours to definitive medical care.
      ii. If existing tourniquet is *necessary but ineffective* (continued bleeding or a palpable distal pulse), either tighten the existing tourniquet further, or apply a second tourniquet, side-by-side and, if possible, proximal to the first to eliminate the distal pulse.
      iii. If a tourniquet is determined based on wound assessment *to not be necessary*, use other techniques to control bleeding and remove the tourniquet.

c. Consider tourniquet downgrade or tourniquet conversion if there will be a delay in evacuation more than 2 hours. On any patient who is receiving resuscitation for hemorrhagic shock, ensure a positive response to resuscitation efforts (e.g. improving mentation and peripheral pulses normal in character) before downgrading or converting a tourniquet. Criteria for tourniquet downgrade or conversion:
   - Patient not in hemorrhagic shock
   - Able to subsequently monitor wound closely
   - Tourniquet is not on an amputated or partially amputated limb
   - No prior unsuccessful attempts to remove the tourniquet

   i. Downgrade: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
   ii. Conversion: Expose the wound fully, fully pack the wound with hemostatic or plain gauze, and properly apply a pressure dressing. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
   iii. If a tourniquet downgrade/conversion fails, it should not be attempted multiple times.

d. Expose and clearly mark all tourniquet sites with the time of tourniquet application.

3. Airway Management:
   a. If the patient is conscious and able to follow commands:
      i. Allow the patient to assume any position of comfort. Do not force to lie down.
   b. If the patient is unconscious or conscious, has a pulse, is not apneic, but is unable to follow commands:
      i. Clear mouth of any foreign bodies (vomit, food, broken teeth, gum, etc.).
      ii. Apply basic chin lift or jaw thrust maneuver to open airway.
      iii. Consider placing a nasopharyngeal airway.
      iv. Place patient in the recovery position to maintain the open airway.
   c. Consider applying oxygen if available.

4. Respirations/Breathing:
   a. All open and/or sucking chest wounds should be treated by immediately applying a vented occlusive seal, if available, to cover the defect or leave the wound open.
   b. Monitor any patient with penetrating torso trauma for the development of a subsequent tension pneumothorax. The most common presentation will be a penetrating chest injury with subsequent progressive dyspnea/respiratory distress, hypoxia and/or hypotension, and/or increasing anxiety/agitation, often after the application of an occlusive chest seal.
   c. If a tension pneumothorax is suspected, remove the occlusive dressing and physically “burp” the chest seal.

5. Shock Management/Fluid Resuscitation:
   a. Assess for developing hemorrhagic shock
      i. Altered mental status (in the absence of head injury) and weak or absent peripheral pulses are the best austere field indicators of shock.
      ii. If equipment available, assess for abnormal vital signs (e.g. systolic blood pressure (SBP) <90 mmHg with/without heart rate >100 bpm) or a shock index >1 (HR/SBP)
   b. If not in hemorrhagic shock:
      i. Patient may drink if conscious, can swallow, and there is a confirmed delay in evacuation to care.
      ii. Position patient with head elevated 30 degrees if possible.
   c. Prioritize for rapid evacuation any patient with traumatic brain injury or any patient, especially those with penetrating torso injury, that is displaying signs of shock.

6. Prevention of Hypothermia:
   a. Minimize patient’s exposure to the elements and subsequent heat loss.
      i. Avoid cutting off or removing clothes unless absolutely necessary for wound evaluation.
      ii. For public safety casualties, keep protective gear on or with the patient if feasible.

b. Keep the patient covered, warm and dry.
   i. Place the patient onto an insulated surface as soon as possible to decrease conduction from cold ground temperatures.
   ii. Minimize exposure to the elements.
   iii. Replace wet clothing with dry if possible.
   iv. Cover the patient with dry blankets, jackets, poncho liners, sleeping bags, commercial warming devices or anything that will retain heat and assist in keeping the patient dry.
   v. Warm fluids are preferred if IV fluids are administered.

7. Reassess Patient:
   a. Perform a rapid blood sweep/secondary survey, front and back, checking for additional injuries. Tearing or cutting clothing, or otherwise exposing the wound may be necessary.
   b. Inspect and consider dressing known wounds that were deferred for treatment in earlier steps of indirect threat care.
   c. Consider splinting known/suspected fractures, including the application of pelvic binding devices/ techniques for suspected pelvic fractures.

8. Burns:
   a. Stop the burning process.
   b. Cover the burn area with dry, sterile dressings and initiate aggressive measures to prevent heat loss and hypothermia.
   c. Facial burns, especially those that occur in closed spaces, are likely associated with inhalation injury. Aggressively monitor airway status and, if available, oxygen saturation in such patients and consider early definitive airway management for respiratory distress, oxygen desaturation, or other signs of inhalational injury (e.g. hoarseness, stridor, throat pain).
   d. Smoke inhalation, particularly in a confined space, may be associated with significant carbon monoxide and cyanide toxicity.
      i. Significant symptoms of smoke inhalation and carbon monoxide toxicity should be treated with high flow oxygen if available.
   e. Estimate total body surface area (TBSA) burned to the nearest 10% using the appropriate locally approved burn calculation formula only if time permits.
   f. All previously described patient care interventions can be performed on or through burned skin in a burn patient.

9. Monitoring:
   a. Apply appropriate monitoring devices and/or diagnostic equipment if available. Obtain and record vital signs.

10. Prepare Patient for Movement:
   a. Consider environmental factors for safe and expeditious evacuation.
   b. Secure patient to a movement assist device when available.
   c. If vertical extraction required, ensure patient is secured appropriately.

11. Communicate with the patient if possible.
   a. Encourage, reassure and explain care.

12. Cardiopulmonary Resuscitation*:*
   a. CPR within this phase of care for victims of blast, penetrating or blunt trauma who have no pulse, no ventilations, and no other signs of life will likely not be successful and should not be attempted.
   b. In other circumstances, performing CPR may be of benefit and should be considered in the context of the operational situation.

13. Documentation of Care:
   a. Document clinical assessments, treatments rendered, and changes in the patient's status in accordance with local protocol. Forward this information with the patient to the next level of care.

Evacuation Care/Cold Zone

1. Reassess all interventions applied in previous phases of care.
   a. If multi-patient event, perform primary triage per local protocols for priority and destination.

2. Airway Management:
   a. The principles of airway management in evacuation care/cold zone are the same as that in indirect threat care/warm
   b. Consider applying oxygen if available.
   c. If intubated and attached to a mechanical ventilator by another healthcare professional, consider lung reassess for respiratory decline in patients with potential pneumothoraces.
   d. Consider the mechanism of injury and the need for spinal motion restriction.
      i. Routine spinal immobilization is not recommended and may be harmful for casualties with penetrating trauma.
      ii. Maintain high clinical suspicion for casualties for geriatric patients with blunt trauma.
      iii. Adequate spinal motion restriction may be maintained by keeping the patient calm, coaching of the patient to limit movement and by positioning in a supine position on a firm surface.
      iv. Patients may be clinically cleared under a locally approved selective spinal motion restriction protocol if they have none of the following:
         - Midline cervical spine tenderness
         - Neurologic impairment
         - Altered mental status
         - Distracting injury
         - Intoxication

3. Respirations/Breathing:
   a. All open and/or sucking chest wounds should be treated by immediately applying a vented occlusive seal, if available, to cover the defect or leave the wound open.
   b. Monitor the patient for the potential development of a subsequent tension pneumothorax. Tension pneumothoraces should be treated as in indirect threat care/warm zone.
      i. Symptoms include, but are not limited to, progressive respiratory distress, hypoxia and/or hypotension in the setting of known torso trauma
   c. Reassess casualties who have had chest seals applied or had needle decompression. If there are signs of continued or progressive respiratory distress:
      i. Consider repositioning the patient, burping the chest seal. If this results in improved clinical status, the decompression can be repeated multiple times.
   d. Administration of oxygen may be of benefit for all traumatically injured patients, especially for the following types of casualties:
      - Low oxygen saturation by pulse oximetry
      - Injuries associated with impaired oxygenation
         - ❑ Unconscious patient
         - ❑ Patient with traumatic brain injury (maintain oxygen saturation 94-98%)
         - ❑ Patient in shock
         - ❑ Patient at altitude
         - ❑ Patient with known/suspected pneumothorax

4. Major Bleeding:
   a. Assess for any unrecognized or untreated bleeding.
      i. If not already done, use a tourniquet or an appropriate pressure dressing to control life-threatening external hemorrhage that is anatomically amenable to such treatment.
         - *Tourniquet application*: Apply the tourniquet directly to the skin 2-3 inches above wound (Do not apply over the joint) and tighten as much as possible.
         - *Pressure dressing application*: apply directly to the skin after the wound has been packed with either plain or hemostatic gauze to translate the surface pressure exerted by the bandage to the bleeding vessels deep in the wound.

- For any traumatic total or partial amputation, a tourniquet should be applied in an appropriate location regardless of bleeding.
- Expose and clearly mark all tourniquets with time of application.

b. Re-assess effectiveness and clinical indications for all tourniquets that were applied during previous phases of care.
   i. Tourniquets that are determined to be both *clinically indicated and effective* in controlling hemorrhage should remain in place if the patient can be evacuated within 2 hours to definitive medical care.
   ii. If existing tourniquet is *clinically indicated but ineffective* (continued bleeding or a palpable distal pulse), either tighten the existing tourniquet further, or apply a second tourniquet, side-by-side and, if possible, proximal to the first to eliminate the distal pulse.
   iii. If a tourniquet is determined based on wound assessment *to not be clinically indicated*, use other techniques to control bleeding and remove the tourniquet.

c. Consider tourniquet relocation, downgrade, or conversion if there will be a delay in evacuation more than 2 hours. On any patient who is receiving fluid resuscitation (including blood products) for hemorrhagic shock, ensure a positive response to resuscitation efforts (e.g. improving mentation and peripheral pulses normal in character) before downgrading/converting a tourniquet. Criteria for tourniquet downgrade/conversion:
   - Patient is not in hemorrhagic shock
   - Able to subsequently monitor wound closely
   - Tourniquet is not on an amputated or partially amputated limb
   - No prior unsuccessful attempts to remove the tourniquet

   i. Downgrade: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
   ii. Conversion: Expose the wound fully, fully pack the wound with hemostatic or plain gauze, and properly apply a pressure dressing. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.
   iii. Tourniquet relocation: Expose the wound fully, identify an appropriate location at least 2-3 inches above the injury (not over a joint), and apply a new tourniquet directly to the skin. Once properly applied, the prior tourniquet can be loosened but should be left in place. Assess for bleeding.

iv. If a tourniquet downgrade/conversion fails, it should not be attempted multiple times.

5. Shock Management
   a. Reassess for hemorrhagic shock (altered mental status in the absence of brain injury, weak or absent peripheral pulses, and/or change in pulse character). In this phase, BP monitoring should be available. If so, maintain target systolic BP above 80-90 mmHg.
   d. In a patient who has altered mental status due to suspected or confirmed traumatic brain injury, avoid any hypotension.
      i. Position patient with head elevated 30 degrees if possible.

6. Prevention of Hypothermia:
   a. Minimize patient's exposure to the elements. Move into a medic unit, vehicle, or warmed structure if possible. Avoid cutting off or removing clothes unless necessary for wound exposure.
      i. For public safety casualties, keep protective gear on or with the patient if feasible.
   b. Replace wet clothing with dry if possible.
   c. Place the patient onto an insulated surface as soon as possible to decrease conductive heat loss to the cold ground.
   d. Cover the patient with dry blankets, jackets, poncho liners, sleeping bags, commercial warming devices or anything that will retain heat and keep the patient dry.
   e. Warm fluids are preferred if IV fluids are required.

7. Monitoring
   a. Institute electronic monitoring if available, including pulse oximetry, blood pressure, and end-tidal CO_2
   b. Obtain and record vital signs.

8. Reassess Patient:
   a. Complete secondary survey checking for additional injuries. Inspect and dress known wounds that were previously deferred.
   b. Determine mode and destination for evacuation to definitive care.
   c. Splint known/suspected fractures and recheck pulses.
   d. Apply pelvic binding techniques or device for suspected unstable pelvic fractures.

9. Burns:
   a. Burn care and resuscitation is consistent with the principles described in indirect threat care/ warm zone.
   b. Smoke inhalation, particularly in a confined space, may be associated with significant carbon monoxide and cyanide toxicity.
      i. Significant symptoms of smoke inhalation and carbon monoxide toxicity should be treated with high flow oxygen if available.
   c. Be cautious of off-gassing from patient in the evacuation vehicle if there is suspected chemical exposure (e.g. cyanide) from the fire.

10. Traumatic Brain Injury (TBI):
   a. Prevention of hypotension and hypoxia are critical in management of TBI.
   b. Raise the head of the bed or stretcher 30 degrees if patient is not in hemorrhagic shock.

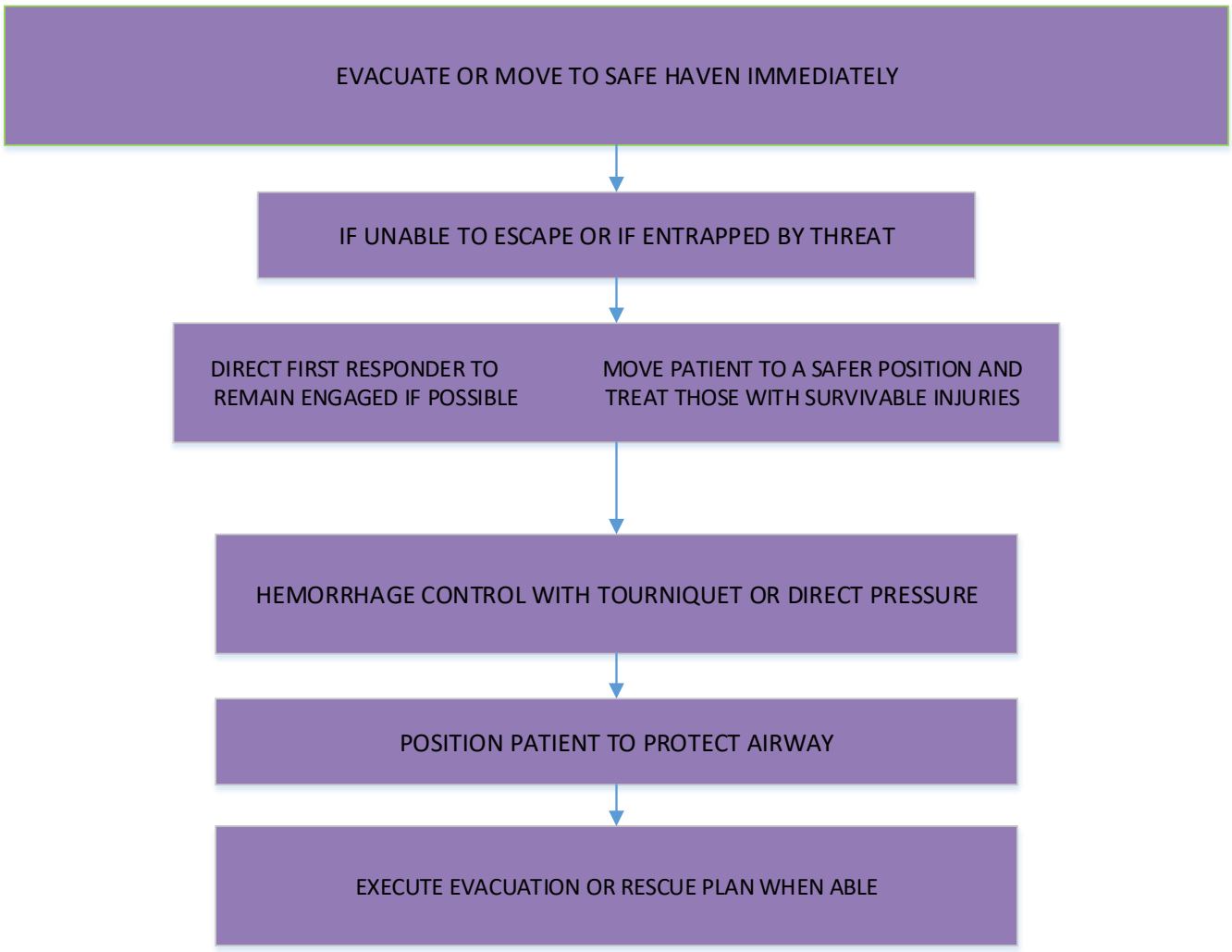
11. Prepare Patient for Movement:
   a. Consider environmental factors for safe and expeditious evacuation.
   b. Secure patient to a movement assist device when available.
   c. If vertical extraction required, ensure patient secured appropriately.

12. Communicate with the patient if possible and with the receiving facility.
   a. Encourage, reassure and explain care to patient.
   b. Notify receiving facility of wounds, patient condition, and treatments applied.

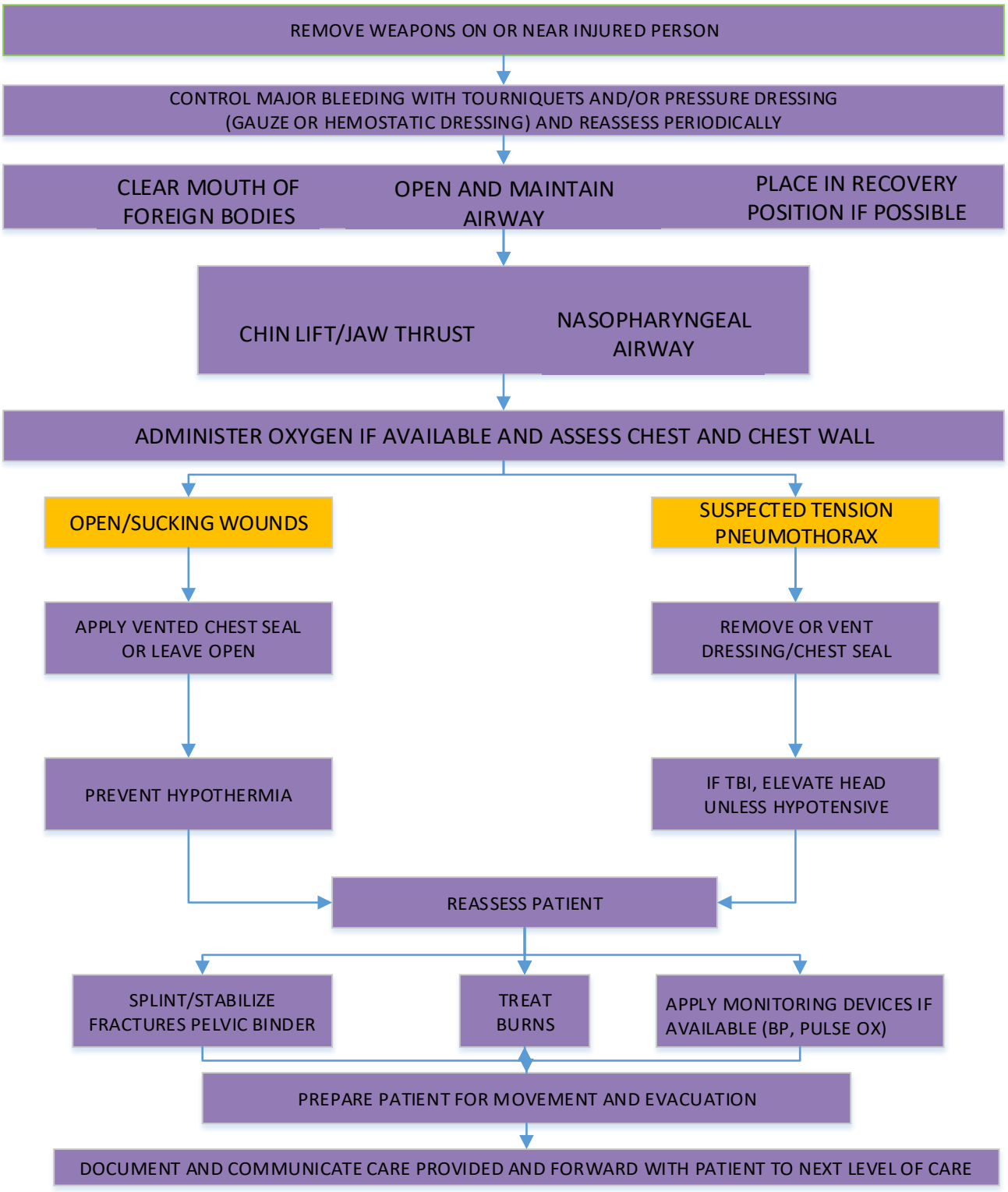
13. Cardiopulmonary Resuscitation:
   a. CPR may have a *larger role* during the evacuation phase especially for patients with electrocution, hypothermia, non-traumatic arrest or near drowning.

14. Documentation of Care:
   a. Continue or initiate documentation of clinical assessments, treatments rendered, and changes in the patient's status in accordance with local protocol.
   b. Forward this information with the patient to the next level of care.

TACTICAL EMERGENCY CASUALTY CARE
DIRECT THREAT CARE – HOT ZONE

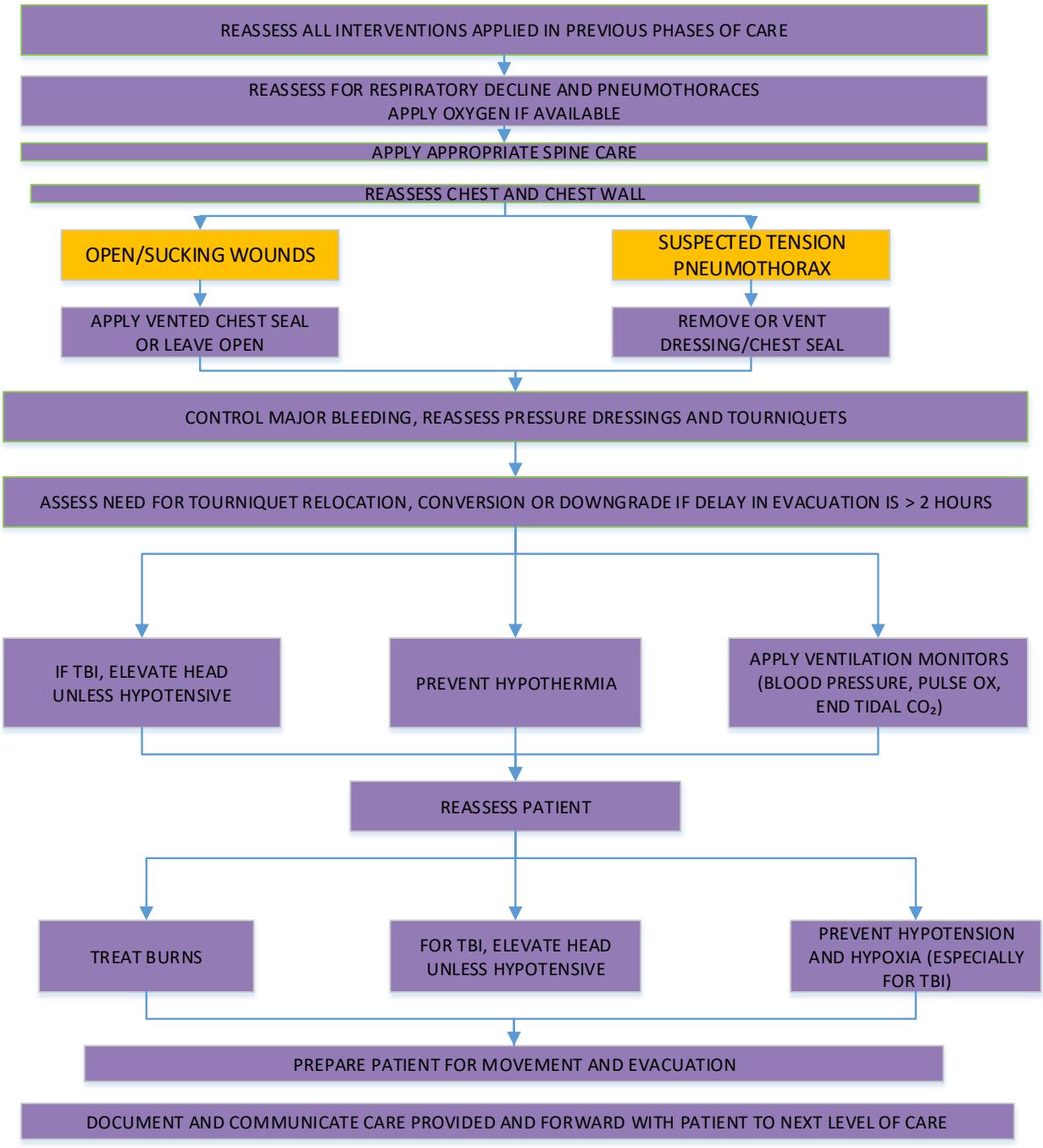


TACTICAL EMERGENCY CASUALTY CARE
INDIRECT THREAT CARE – WARM ZONE



*** DO NOT PERFORM CPR IN A WARM ZONE**

TACTICAL EMERGENCY CASUALTY CARE
EVACUATION CARE – COLD ZONE



DO NOT PERFORM CPR FOR VICTIMS OF BLAST, PENETRATING, OR BLUNT TRAUMA

CONSIDER CPR FOR PATIENTS WITH ELECTROCUTION, HYPOTHERMIA, NON-TRAUMA ARREST, OR NEAR DROWNING