GMVEMSC PREHOSPITAL EMR STANDING ORDERS
TRAINING MANUAL
VERSION January 1, 2017
Adult: Patients 16 Years Old and Above
Pediatric: Patients under 16 Years Old
All Pediatric Treatments will be in Pink and Bulleted with a "P"

ADULT and PEDIATRIC ORDERS INDEX

TOPIC	PAGE
2017 Changes	90
Abdominal Pain	22
Abbreviations	40
Administering Nerve Agent Antidotes	37
Adult Abuse	27
Airway Maintenance	8
Allergic Reactions	21
ALTE	26
Antidote Resources	37
APGAR Scores	24
Asthma or Emphysema or COPD	21
Bradycardia	10
Burns and Smoke Inhalation	19
Carbon Monoxide	19
Cardiac Arrest-BLS	8
Cardiac Arrest in Pregnancy	22
Cardiovascular Emergencies	8
CHEMPACKS	38
Chest Pain	10
Childbirth	23
Combative Patients	28
Communicating with Hospitals	2
CPR Chart	9
Crisis Standards of Care	34
Crush Syndrome	16
Delivery Complications	23
DNR-Comfort Care & Comfort Care Arrest	3
Drowning	17
Drug Bag Exchange Program	56
Drug Sheets	44
Extremity Injuries	17
Eye Injuries	20
Fever	25
Field Termination	4
Frostbite	18
HazMat	35
Hazardous Drug Exposure	35
HazMat, Biological	36
HazMat, Cyanide	36

TOPIC	PAGE
HazMat, Hydrofluoric Acid	36
HazMat, Organophosphate	37
HazMat, Pepper Spray	38
Head Injury	17
Heat Exposure	20
Hemorrhage Control	16
Hospital Capabilities	77
Hypothermia	18
Infectious Disease Exposure	80
Initial Care	4
Major Trauma	15
Newborn Resuscitation	24
Non-Initiation of Care	3
Obstetrical Emergencies	22
Overdose or Poisoning	21
PAT	5
Pediatric Abuse	27
Prehospital Field Triage	12
Psychiatric Patients	28
Pulmonary Edema	20
Reroute Policy	71
Respiratory Distress	20
Regional Hospital Notification System	39
Rights of Medication Administration	43
Run Documentation Requirements	43
Safe Harbor	25
Salt Triage	30
Seizures	21
Sepsis	10
Shock	10
Skills Sheets	50
Spinal Motion Restriction	6
Stipulations	2
Stroke	11
Tachycardia	10
Third Trimester Bleeding	22
Transport Guidelines	15
Trauma Criteria	13
Trauma Emergencies	12

STIPULATIONS

- This protocol is for use by those individuals operating in and under the authority of the Greater Miami Valley EMS Council (GMVEMSC) Drug Bag Exchange Program and certified by the State of Ohio as an Emergency Medical Responder (EMR)
- This protocol is to be used in the field only. Communications must be attempted as soon as practical for potentially unstable patients.
- Procedures that are marked with a diamond (♦) are never to be performed without a Medical Control Physician (MCP) order. The diamond provides rapid identification of procedures and medications that require on-line MCP authorization.
- No procedures, techniques, or drugs will be used without the proper equipment, or beyond the training or capabilities of the prehospital personnel. Nothing in this protocol may be used without specific pre-approval of the Medical Director for the local department or agency.
- Items enclosed in braces ({ }) are at the option of the department and its Medical Director.
- Any patient in respiratory distress on oxygen or whose O_2 sats indicate a need for oxygen, shall remain on oxygen until care is transferred to the hospital.
- Infrequently, stepwise adherence to specific protocols may not be in the patient's best interest. No protocol can substitute for the EMS professional's judgment. However, at no time should treatment options exceed those authorized without direct consultation with Medical Control. In all such cases, contact with Medical Control should be considered as soon as possible.
- The Adult and Pediatric Orders ("Peds") have been combined.

A Sections that apply only to Adults are bulleted with an "**A**."

P All Pediatric treatments will be in Pink and bulleted with a "**P**."

- Sections which apply to both Adult and Peds are indicated with standard bullets.

G **S**ections which apply only to Geriatric patients and are bulleted with a bold "**G**."

COMMUNICATING WITH HOSPITAL OR MEDICAL CONTROL

- There are several reasons to contact the hospital.
  - To notify the hospital when time is needed to set-up for the patient. Examples include major
  - trauma, cardiac arrest, hazardous materials, bedbugs, and Cardiac or Stroke Alerts.
  - To obtain orders, such as for procedures or medications indicated by the diamond in these Standing Orders
  - To obtain advice, for example, guidance from the MCP might be needed before a medication is given, even though Standing Orders allow it to be used without permission. Another situation might be a patient with an unfamiliar condition.
- When contacting the hospital, make sure a clear picture is painted. The crew can see the patient; the hospital personnel cannot. The ability to communicate findings will directly impact the hospital's response.
- Remember that the hospital may have more information, and may or may not decide to act on your recommended alert. Examples:
  - Patients who meet Trauma Destination Protocols do not always warrant the hospital calling in a surgical team immediately.

NON-INITIATION OF CARE

Non-Initiation of Care

- Resuscitation will not be initiated in the following circumstances:
  - Deep, penetrating, cranial injuries
  - Massive truncal wounds
  - DNR Order—present and valid
  - Frozen body
  - Rigor mortis, tissue decomposition, or severe dependent post-mortem lividity
  - Triage demands
  - Blunt trauma found in cardiac arrest *unless* one of the following conditions is present:
    - Patient can be delivered to an emergency department within 5 minutes.
    - The arrest is caused by a medical condition.
    - Focused blunt trauma to the chest (such as a baseball to the chest).
      - An example is Commotio Cordis, a form of sudden cardiac death, seen most often in boys and young men playing sports. It occurs as the result of a blunt, non-penetrating impact to the precordial region from a ball, bat or other projectile.
  - Penetrating trauma found in cardiac arrest when the patient cannot be delivered to an emergency department within 15 minutes.
    - Resuscitation will be initiated on victims of penetrating trauma who arrest after they are in EMS care.
- If care began and it is readily apparent to EMS that the patient met non-initiation of care criteria, resuscitation efforts may cease.

DNR: COMFORT CARE and COMFORT CARE ARREST

Do Not Resuscitate-Comfort Care (DNR-CC)

(Permits any medical treatment to diminish pain or discomfort that is not used to postpone the patient's death)

The following treatments are permitted:

- Suctioning
- Oxygen
- Splinting and spinal restriction
- Bleeding Control
- Pain control

The following treatments are ***not*** permitted:

- Chest compressions
- Airway adjuncts including CPAP and respiratory assistance
- Resuscitative drugs
- Defibrillation/cardioversion/monitoring

Do Not Resuscitate-Comfort Care Arrest (DNR-CCA)

- Permits any appropriate Standing Orders treatment until cardiac or respiratory arrest or agonal breathing occurs.

NOTE: When a Durable Power of Attorney for Healthcare (DPA-HC) is present and the "Living Will and Qualifying Condition" box is checked, the DPA-HC cannot override the patient's DNR status. A patient may change their DNR status at any time verbally, in writing, or by action.

FIELD TERMINATION

EMRS <u>ARE NOT</u> ALLOWED TO FIELD TERMINATE PATIENTS

INITIAL CARE

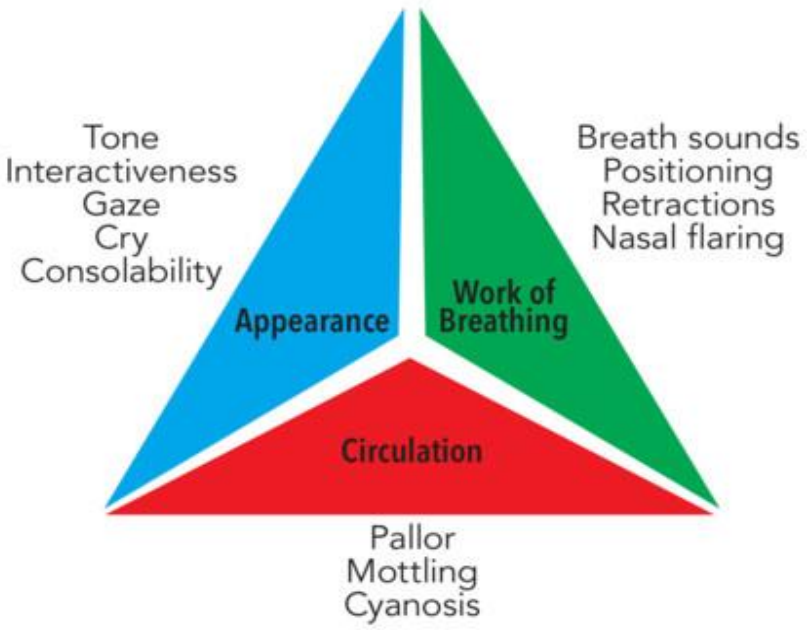
- Follow basic life support and airway algorithms as indicated based on current AHA Guidelines.
- Obtain chief complaint (OPQRST, see Abdominal Pain), SAMPLE history and vitals per patient condition:
  - SAMPLE: **S**igns and Symptoms, **A**llergies, **M**edications, **P**ast medical history, **L**ast oral intake, **E**vents leading up to present illness or injury.
- IN medication administration must be via Mucosal Atomizer Device (MAD).

NOTE: Pedi-Wheel or length-based resuscitation tape may be used to reference pediatric vital signs.

- Utilize monitoring devices pulse oximeter, etc. as appropriate.
- Send medications or a list of the medications; include the dose and frequency of administration to the hospital with the patient

NOTE: For patients with insulin pumps: send extra tubing and medication packets to receiving facility with patient.

The PAT Triangle



- **The Pediatric Assessment Triangle establishes a level of severity, assists in determining urgency for life support measures, and identifies key physiological problems using observational & listening skills.**

- **Appearance** reflects adequacy of: oxygenation ventilation, brain perfusion, CNS function

- One mnemonic used for pediatric assessment is: TICLS.
  - **T**one- Moves spontaneously, sits or stands (age appropriate)
  - **I**nteraction- Alert, interacts with environment
  - **C**onsolability- Stops crying with comfort measures (holding, warmth, distraction)
  - **L**ook/gaze – Makes eye contact with clinician, tracks objects
  - **S**peech/cry – Uses age appropriate speech or crying

- **Breathing**-Work of breathing is a more accurate indicator of oxygenation and ventilation than respiratory rate or breath sounds (standards used in adults)

- **Circulation** reflects adequacy of cardiac output and perfusion of vital organs (core perfusion).

- **Cyanosis** reflects decreased oxygen levels in arterial blood, vasoconstriction and respiratory failure.

- **Mottling** of the skin indicates hypoxemia, vasoconstriction and respiratory failure.

SPINAL MOTION RESTRICTION (SMR)

Introduction

Traditionally, EMS has immobilized all patients with *potential* spinal injury to include backboards and associated adjuncts (B/AA). However, studies indicate that traditional spinal restriction with B/AA has risks and may even cause harm in select cases. SMR has been modified to more accurately reflect appropriate indications and methods for spinal restriction. Spinal precautions for at risk patients remain paramount. This protocol does not indicate that EMS no longer immobilizes the spine; it simply provides a different means of restriction in selected patients.

Blunt trauma (falls, MVC)

1. All patients with clinical indications of a spinal injury (such as focal neurologic deficit including paralysis) and or with altered levels of consciousness (including those who are combative, confused, or intoxicated, i.e. patients who are unable to follow commands) must be immobilized with both a C-collar and a spinal restriction device (e.g., spine board, KED, vacuum splint).
2. Additionally pediatric trauma patients less than 3 years of age with a GCS of < 15 must be immobilized with both a C-collar and a spinal restriction device (e.g. spine board, KED).
3. Other alert trauma patients, including all those listed below, should have a c-collar placed and moved with caution in-line as a unit to the cot. This does not mean on a BB.

- Neck pain
- Midline neck or spinal tenderness
- Pain on motion of the neck
- High risk mechanism (high speed MVC, fall > 10 feet, axial loading injury)

Penetrating Trauma

- Patients with penetrating trauma do not need to be immobilized with either a CC or BB.
- Delays in transport are to be minimized.

Airway or Ventilatory Management

Patients who are immobilized and require airway and or ventilatory intervention (including intubation) may have the collar removed with in-line stabilization performed during the intervention. The collar should then be reapplied.

Other

- Patients who do not tolerate restriction (e.g., shortness of breath, anxiety, and body habitus) should have restriction adjusted to the point of removal if necessary based on clinical response. They should be maintained in the manner of restriction that they can tolerate (e.g., a patient may not tolerate a backboard but may tolerate sitting up with a c-collar).

- Spinal restriction devices may be utilized for movement from a site of injury to the cot. Patients who do not require restriction as above should be removed from the device prior to transport and kept in-line during transport. This is referred to as, “Move patients on hard things; transport on soft things.”

Sporting Injuries

- In an emergency situation with equipment intensive sports such as football, hockey and lacrosse, the protective equipment shall be removed prior to transport to an emergency facility.

SPINAL MOTION RESTRICTION (SMR)

How should I determine the level of Spinal Motion Restriction for potential spinal injury?

For high risk MOI including high speed MVC, falls > 10 ft., axial load injuries and blunt force above the shoulders

Full Spinal Motion Restriction

- Patients with GCS < 15 including confusion and intoxication
- Patients with altered LOC
- Patients with neurologic deficits including paralysis, or clinical indications of a spinal injury
- Patients < 3 y/o with GCS < 15

C-Collar and move in-line to cot

- Patients with neck pain, midline neck tenderness, pain on motion of the neck
- Patients with GCS of 15

Patients Not Requiring SMR

- Penetrating trauma
- Pts not falling into the other two conditions

EXCEPTIONS

- Patients who require airway or ventilatory intervention may have the collar removed with inline stabilization during the intervention
- Patients who do not tolerate restriction should have it adjusted to the point of removal if necessary

AIRWAY MAINTENANCE

- **O_2** as needed. Use the following rates as guidelines:
  - **2 LPM by nasal cannula (NC)** for patients with COPD, unless prescribed higher.
  - **4-6 LPM by NC** for other patients
  - **12-15 LPM by non-rebreather mask (NRM)** for severe trauma patients distressed cardiac patients, patients with respiratory distress, and patients who appear to need high flow **O_2**.
- Ventilate symptomatic patients who have insufficient respiratory rate or depth.

RESPIRATORY RATES BY AGE

Up to 1 year	30-60	7-9 years	16-24
1-3 years	20-40	10-14 years	16-20
4-6 years	20-30	15+ years	12-20

NOTE: COPD patients in severe respiratory distress or with chest pain need the same O_2 devices and flow rates as any other patient in such condition.

CARDIOVASCULAR EMERGENCIES

General Considerations:

- CPR should not be interrupted for more than 10 seconds until spontaneous pulse is established.

CARDIAC ARREST: BASIC LIFE SUPPORT

- Assess patient for respiratory and cardiac arrest.
- Initiate CPR and defibrillate using the most current American Heart Association Guidelines.
- Patient should be transported as appropriate.
- In all cardiac arrests, consider treatable causes(i.e., "**Hs** and **Ts**"):
  - **H:** hypothermia, hypoxia
  - **T:** tension pneumothorax

2015 AHA CPR GUIDELINES

	ADULTS	CHILDREN	INFANTS	NEWBORNS
CPR ORDER	Compression, Airway, Breathing (CAB)			
COMPRESSION DEPTH	At Least 2 Inches	1/3 Depth of Chest (About 2")	1/3 Depth of Chest (About 1½")	1/3 Depth of Chest
COMPRESSION RATE	100-120 per minute			120 per minute
COMPRESSION NOTES	Minimize Interruptions In Chest Compressions Limit Interruptions To < 10 Seconds			
COMPRESSION TO BREATHS RATIO	30:2 1 or 2 Person CPR	30:2 1 Person CPR 15:2 2 Person CPR		3:1
ADVANCED AIRWAY	1 breath every 6-8 seconds (8-10 breaths per min.) About 1 sec per breath duration No interruptions of compressions			40-60 breaths per min.
RESCUE BREATHING	1 breath every 5-6 seconds (10-12 breaths per min)	1 breath every 3-5 seconds (12-20 breaths per min)		40-60 breaths per min

NOTES:

- Use jaw-thrust method to open airway on trauma patients.
- Allow the chest to fully recoil after each compression.
- Change person compressing chest every 2 minutes.
- Attach and use AED as soon as possible.
- Utilize AED as it is programmed. (Even if it is not to AHA guidelines.)

P If available, use age appropriate AEDs or pads.

- Minimize interruptions to compressions before and after each shock to less than 10 seconds.
- Resume CPR beginning with compressions after each defibrillation.
- For pregnant patients in arrest, consider need for manual uterine displacement and perform chest compressions slightly higher on the sternum than normal.

SUSPECTED CARDIAC CHEST PAIN

A Apply **O_2** as appropriate.

A Arrange for rapid ALS transport.

P Chest pain in the pediatric patient is rarely related to a cardiac event. Assessment of other causes (e.g., muscle pain, respiratory difficulties, injury) should be completed to determine the source of pain. Application of supplemental oxygen and transport should be the mainstay of care for these patients. Contact MCP for further advice when needed.

CARDIAC DYSRHYTHMIAS
BRADYCARDIA

A cardiac patient should be considered unstable if they are hypotensive, have altered mental status, or has unresolving chest pain and poor skin color or diaphoresis.

A Call for transport immediately.

P For adequate perfusion, monitor vital signs, and apply oxygen if needed.

P For poor perfusion:

- Perform CPR if HR < 60/min.

TACHYCARDIA

- Call for transport immediately

SHOCK

Perform manual BP on all pts presenting with S/S of shock. SBP is only one component of the overall clinical picture, which may include tachycardia, tachypnea, diaphoresis, restlessness, decreased mentation. Skin may be pale, ashen, cyanotic, cool, or clammy. Be sure to include S/S in report if SBP is < 100.

- Call for transport immediately
- Provide **O_2** as appropriate
- Keep patient warm.

SEPSIS

Sepsis affects at least one million people annually. Patients may be in septic shock with a normal BP. Severe sepsis is characterized by poor perfusion, leading to a buildup of serum lactate and resulting metabolic acidosis. $EtCO_2$ levels decline in the setting of both poor perfusion and metabolic acidosis. To compensate for metabolic acidosis, patients increase their minute ventilation. This increased respiratory rate "blows off" carbon dioxide and lowers $EtCO_2$. At the same time, poor tissue perfusion decreases the amount of blood flow to the alveoli of the lungs, reducing the amount of carbon dioxide that can be exhaled—the most dramatic demonstration of this process is during cardiac arrest.

Sepsis is often associated with a high mortality rate. The key to improve patient outcomes in septic shock is early recognition, fluid resuscitation, O_2 therapy and rapid transport.

When to consider sepsis:

- A patient with a known or suspected infection and an $EtCO_2$ < 32 or > 47, with 2 or more of the following criteria:
  - Respiratory rate ≥ 22
  - Altered mental status (GCS < 13)
  - Temperature > 100.4 (38 C) or < 96.8 (36 C)
  - Heart rate > 90
  - Systolic BP < 100 or MAP ≤ 65. MAP (mean arterial pressure) is considered to be the organ perfusion pressure. MAP = (SBP + 2 X DBP) / 3 and is normally 70 – 110 mm/hg.
- Treatment:
  - O_2

Note: Be especially suspicious of sepsis in geriatric patients with altered mental status

STROKE

A Be prepared to assist ventilations with oral or nasal airway and BVM or {FROPVD (Flow Restricted Oxygen Powered Ventilation Device)}.

A If signs of cerebral herniation are present, ventilate at a rate of 20 respirations per minute.
- {If numeric $EtCO_2$ readings are available, ventilate at a rate to maintain readings at approximately 30 mmHg (30 torr)}.

P Ventilate at a rate of ten faster than normal respiratory rate when the signs of cerebral herniation are present.

- If one or more signs of the Cincinnati Prehospital Stroke Scale are abnormal, and < 4 hours since patient was last seen normal, call a Stroke Alert, and transport to a Stroke Center with TPA capabilities.
  - Cincinnati Prehospital Stroke Scale: (normal or abnormal)
    - Facial Droop (pt. shows teeth or smiles).
    - Arm Drift (pt. closes eyes and holds both arms straight out for about 10 seconds).
    - Abnormal Speech (have pt. say "You can't teach an old dog new tricks.")
- If patient's symptoms occurred > 4 hours and < 8 hours from last time they were known to be free of stroke symptoms or awoke abnormal, arrange for transport to a Comprehensive Stroke Center.
  - MCP will be contacted for a Stroke Alert and for advice regarding transport destination if greater than 8 hours since last seen normal.
- Transport the patient with the bed flat, if able to tolerate. If showing signs of increased ICP, do not lay pt flat.
- Transport historian with patient both to provide patient history and for permission to treat.

Telemedicine stroke center with tPA ready, also known as drip and ship, has tPA capabilities and immediate access to a Neurologist via telemedicine.

Primary Stroke Center: facility with capability to administer tPA and also has an ICU. They can either admit patients or move them on.

Comprehensive Stroke Centers: facility with 24/7 endovascular capabilities.
- Miami Valley Hospital
- Kettering Medical Center

Disorders Mimicking Stroke
- Seizure
- Subdural hematoma
- Brain tumor
- Syncope
- Toxic or metabolic disorders (e.g., hypoglycemia)

TRAUMA EMERGENCIES

General Considerations:

- Use of on-line MCP for medical direction in the field for difficult cases is encouraged.
- Minor trauma patients may be transported to non-trauma centers.
- Major trauma patients are to be transported as soon as possible to the nearest appropriate facility.
- Scene size-up, with rapid assessment and recognition of major trauma or multiple system trauma and effective evaluation of the mechanism of injury are essential to the subsequent treatment.
- Hypothermia is a significant and frequent problem in shock for major trauma patients. Maintain patient's body temperature.
- If patient condition changes, notify hospital.
- When patient is transported by helicopter, the EMS run sheet should be faxed to the receiving trauma center.
- The *only* procedures that should take precedence to transport of major trauma patients are:
  - Airway management
  - Stabilization of neck, back or obvious femur and pelvic fractures on a backboard
  - Exsanguinating hemorrhage control
  - Extrication
- After the trauma patient's extrication, the on-scene time should be limited to **10 minutes or less**, except when there are extenuating circumstances.
- Take a manual BP on all trauma patients.
- Repeat vitals on trauma patients every 5 minutes.

PRE-HOSPITAL FIELD TRIAGE

- Arrange to have patients with the following conditions transported to the nearest hospital:
  - Unstable airway
  - Blunt trauma arrest ≤ 5 minutes from a hospital or penetrating trauma arrest ≤ 15 minutes from hospital
- Drowning; near drowning; strangulation; burns; electromagnetic, chemical, or radiation exposure; heat or cold injury or illness; and asphyxia are considered trauma and these patients should be transported to a Trauma Center.

TRAUMA CRITERIA

- **G** Patients 70 years of age or older will be triaged for evaluation at a Trauma Center for:
  - **G** GCS < 15 with suspected traumatic brain injury (TBI)
  - **G** Systolic BP < 100 mmHg
  - **G** Falls, even from a standing position, with evidence of TBI
  - **G** Pedestrian struck by motor vehicle.
  - **G** Known or suspected proximal long bone (femur/humerus) fracture sustained in MVC.
  - **G** Multiple body regions injured.
- **G** Special consideration should be given for the geriatric trauma patient to be evaluated at a Trauma Center if they have diabetes, cardiac disease, clotting disorders, immunosuppressive disorder, are on anticoagulants, or require dialysis.

Anatomy of Injury:

- All penetrating trauma to head, neck, torso, and extremities proximal to elbow or knee with neurovascular compromise.
- Abdominal injury with tenderness, distention, or seat belt sign
- Chest injury: flail chest or tension pneumothorax
- Two or more proximal long bone fractures

G One proximal long bone fracture in MVC only *(Geriatric Trauma*)

- Evidence of pelvic fracture (exception: isolated hip fracture)
- Spinal cord injury with paralysis

A Burns greater than 10% total body surface area (BSA) or other significant burns involving the face, feet, hands, genitals or airway

P Burns greater than 5% total BSA or other significant burns involving the face, feet, hands, genitals or airway

- Amputation proximal to wrist or ankle
- Evidence of serious injury of 2 or more body systems
- Crush injury to head, neck, torso, or extremities proximal to knee or elbow
- Open skull injury

YES =Transport to Trauma Center	**NO – Assess Physiologic**
Alert Trauma Team	

Physiological Adult:

A GCS less than or equal to 13

A Loss of consciousness greater than five minutes at any time

A Alteration in level of consciousness with evidence of head injury at time of exam or thereafter

A Failure to localize pain

A Respirations < 10 or > 29

A Needs ventilatory support

A Tension pneumothorax

A Pulse > 120 in combination with any other physiologic criteria

A SBP < 90 or absent radial pulse with carotid pulse present

Physiological Pediatric:

P GCS less than or equal to 13

P Loss of consciousness greater than five minutes at any time

P Alteration in level of consciousness with evidence of head injury at time of exam or thereafter

P Failure to localize pain
P Evidence of poor perfusion (e.g., weak distal pulse, pallor, cyanosis, delayed capillary refill, tachycardia)
P Evidence of respiratory distress or failure (e.g., stridor, grunting, retractions, cyanosis, nasal flaring, hoarseness, or difficulty speaking)
P Respiratory rate less than 20 per minutes in infants less than 1 year old.

Physiological Geriatric:

G **GCS** < 15 with evidence of TBI
G Loss of consciousness greater than five minutes at any time
G Alteration in level of consciousness with evidence of head injury at time of exam or thereafter
G Failure to localize pain
G Respirations < 10 or > 29
G Needs ventilatory support
G Tension pneumothorax
G Pulse > 120 in combination with any other physiologic criteria
G SBP < 100 or absent radial pulse with carotid pulse present

YES = Transport to Trauma Center	NO = Evaluate Mechanism of Injury
Alert Trauma Team	

Mechanism of Injury:

- Auto-pedestrian or auto-bicycle injury with significant (> 5 mph) impact
- Death in same passenger compartment
- Ejection from motor vehicle
- Extrication time > 20 minutes

A Fall > 20 feet
P Fall greater than 3 times child's height

- High-speed auto crash
  - Speed > 40 mph
  - Intrusion into passenger compartment > 12 inches
  - Major auto deformity > 20 inches
- Open motor vehicle crash > 20 mph or with separation of rider from vehicle
- Pedestrian thrown or run over.
- Unrestrained rollover
- Vehicle telemetry data consistent with high risk of injury

YES = Consider Trauma Center	NO = Check Special Situations
May consult with Medical Control Physician if needed	

Special Situations:

- Pre-existing cardiac or respiratory disease
- Insulin dependent diabetes, cirrhosis, morbid obesity, seizure disorder
- Patient with bleeding disorder or on anticoagulants
- Immuno-suppressed patients (renal dialysis, transplant, cancer, HIV)

P Congenital disorders

YES = Consider Trauma Center	NO = To Local Hospital

TRANSPORT GUIDELINES

Trauma Center or Facility Capabilities:

- Level I and II Trauma Centers can care for the same trauma patients.
- Level III Trauma Centers offer services, based on individual hospital resources that provide for initial assessment, resuscitation, stabilization, and treatment of the trauma patient.
- In some areas of the region a Level III Trauma Center is the only trauma facility within 30 minutes ground transport time. This hospital may act as the primary receiving facility for the critically injured patient.
- In areas where the trauma patient is closer to a Level III Trauma Center, but a Level I or Level II Trauma Center is still within 30 minutes, the EMS Provider should decide whether the patient would benefit more from an immediate evaluation, stabilization, and treatment at the Level III Trauma Center, or from direct transport to a Level I or Level II Trauma Center.
- In areas of the region where there are no Trauma Centers within 30 minutes ground transport time, the acute care hospital may act as the primary receiving facility for critically injured trauma patients, or EMS Provider may arrange for air medical transport from the scene.

P If a pediatric patient meets the trauma triage guidelines, transport to a Pediatric Trauma Center. If transportation time is > 30 minutes, transport to the nearest acute care hospital, or EMS providers may arrange for air medical transport from the scene.

- All pregnant trauma patients should be transported to the nearest Adult Trauma Center with labor and delivery capabilities**,** unless transport time > 30 minutes.

Air Medical Transportation:

- Prolonged delays at the scene waiting for air medical transport should be avoided.
- Cardiac arrest is **not** appropriate for air transport.
- In the rural environment, direct transfer of trauma patients by air medical transport may be appropriate and should be encouraged.
- Consider the time involved in landing, packaging, loading, and unloading the patient in deciding whether air transport is necessary. It is often faster to use ground transport if the patient is within 15 miles of the Trauma Center.

Exceptions to Transportation Guidelines:

- It is medically necessary to transport the victim to another hospital for initial assessment and stabilization before transfer to a Trauma Center.
- It is unsafe to transport the victim directly to a Trauma Center due to adverse weather or ground conditions or excessive transport time.
- Transporting the victim to a Trauma Center would cause a shortage of local emergency medical services resources.
- No appropriate Trauma Center is able to receive and provide trauma care to the victim without undue delay.
- Before transport begins, the patient requests to be taken to a particular hospital even if it is not a Trauma Center. If the patient is a minor or otherwise considered incapable of making medical decisions, an adult relative or other legal representative may make this request.

MAJOR TRAUMA

Patients meeting criteria for transport to a Trauma Center are considered “Load and Go.”

- Place the patient in a correct position to maintain the airway.
- Open pneumothorax: cover wound with an occlusive dressing, tape down three sides.
- Tension pneumothorax:
  - Lift one side of any occlusive dressing.
- Flail chest: immobilize with a bulky dressing or towels taped to the chest.
- For pregnant patient in arrest consider need for manual uterine displacement and perform chest compressions slightly higher on the sternum than normal.

CRUSH SYNDROME TRAUMA

- History**:** Entrapped or under an extreme load and crushed.
- Contact MCP immediately and prior to relieving the load.
- Signs and symptoms**:** hypotension, hypothermia, abnormal ECG findings, pain and anxiety
- Monitor and reassess
- Special considerations**:**
  - Potential for multiple system trauma
  - Potential for hypo or hyperthermia.

HEMORRHAGE CONTROL

- Control of life-threatening external hemorrhage takes priority over any other treatment.
- Constant, direct pressure is the primary method of bleeding control.
- If direct pressure fails to control bleeding from extremities, use a tourniquet.
  - {Commercial tourniquets such as the CAT or SOFTT are recommended.}
  - Only use wide, flat materials such as cravats or BP cuffs as improvised tourniquets.
  - For injuries to the leg or forearm, place a tourniquet as proximal as possible to the torso on the femur or humerus.
  - Tighten the tourniquet until the bleeding stops.
  - If bleeding persists, place another tourniquet abutted to the first tourniquet.
  - Document time and location. Be sure that the transporting crew is aware of the tourniquet**.**
- {For life-threatening hemorrhage that can't be controlled by a tourniquet, consider {hemostatic dressings, e.g., Combat Gauze, or ChitoFlex PRO}. These can be used on or in the chest or abdomen. Place in direct contact with the source of bleeding and apply a pressure dressing or use Kerlix}>
- **DO NOT USE GRANULAR AGENTS.**
- Treat for hypovolemic shock as indicated.
- Call for transport immediately.

HEAD INJURY

- Evaluate patient condition: including level of consciousness
- Signs of cerebral herniation:
  Dilated and unresponsive pupils, bradycardia, posturing, decreased mental status.
- Ventilate at 20 breaths per minute when signs of cerebral herniation are present:
  - Ventilate to maintain $EtCO_2$ readings of 30 mmHg (30 torr).

P Ventilate at a rate of ten faster than normal respiratory rate when the signs of cerebral herniation are present:

Maintain good ventilation at rate of about one breath every 5-6 seconds (10-12 per minute), with high flow oxygen. Prophylactic hyperventilation for head injury is not recommended. Cerebral herniation syndrome is the only situation in which hyperventilation (rate of 20 per minute; pediatric rate of 10 faster than normal rate) is indicated.

Hypoventilation increases the level of CO_2 in the brain causing cerebral vasodilatation and increased swelling. Hyperventilation decreases the level of CO_2 and causes cerebral vasoconstriction, hypoxia and ischemia. Both hypoventilation and hyperventilation could cause cerebral hypoxia and increases mortality.

In cerebral herniation, there is a sudden rise in intracranial pressure. Portions of the brain may be forced downward, applying great pressure on the brainstem. This is a life-threatening situation characterized by a decreased LOC that rapidly progresses to coma, dilation of the pupil, an outward-downward deviation of the eye on the side of the injury, paralysis of the arm and leg on the side opposite the injury, or decerebrate posturing. When this occurs, the vital signs frequently reveal increased blood pressure and bradycardia. The patient may soon cease all movement, stop breathing, and die. If these signs are developing in a head injury patient, cerebral herniation is imminent and aggressive therapy is needed. Hyperventilation will decrease ICP. In this situation, the danger of immediate herniation outweighs the risk of ischemia.

EXTREMITY INJURIES

- For open fractures, control bleeding with direct pressure and cover with dry, sterile dressing.
- Apply appropriate splinting device.
- To reduce swelling, elevate extremity and apply ice.

Good Splinting Practices:

- Document distal sensation and circulation pre & post splinting and pre & post spinal restriction.
- Open wounds should be covered with a sterile dressing before splinting.
- Apply a well-padded splint to immobilize above and below the injury.
- If in doubt, splint a possible injury.

NOTE: The patient who requires a load and go approach can be adequately immobilized by careful packaging on the long spine board. Additional splinting can be done en route to the hospital as time and the patient's condition permit.

DROWNING AND NEAR DROWNING

- Consider spinal restriction.
- Consider possibility of hypothermia.
- Evaluate neurological status.
- Near drowning patients should be transported to a Trauma Center.

HYPOTHERMIA

- Move patient to warm environment, remove all wet clothing, dry the patient, and cover with blankets.
- Avoid any rough movement that may cause cardiac dysrhythmias or cardiac arrest. It may be beneficial to consider spinal restriction measures.
- Assess neurological status.
- It may be necessary to assess pulse and respirations for up to 45 seconds to confirm arrest.
- Consider possibility of other medical conditions (e.g., overdose, hypoglycemia).
- Hypothermic patients should be transported to a Trauma Center.
- If patient arrests:
  - CPR continuously
  - If severe hypothermia (< 86°F (30°C)) is strongly suspected, limit defibrillation attempts to one except on orders from MCP.
  - If body temperature is > 86°F (30°C), follow normal arrest protocols.
- Oxygenate the patient with 100% O_2.
- Resuscitative efforts should be continued while in transit, even if there is no response.
- Patient should be transported to a Trauma Center.

FROSTBITE

- Protect injured areas. Remove clothing and jewelry from injured parts.
- Do not attempt to thaw injured part with local heat.
- Maintain core temperature.
- Severe frostbite injuries should be transported to a burn center.

BURNS or SMOKE INHALATION

General Considerations:

- It is strongly recommended that at dispatch, agencies immediately call for the nearest available cyanide antidote cache whenever any of the following occur:
  - Dispatched on a report of a person trapped with exposure to fire or smoke in an enclosed area.
  - Dispatched on a report of an incident involving hydrogen cyanide.
  - Report of a Mayday or firefighter down with exposure to fire or smoke in an enclosed area.
- Stop the burning and minimize contamination.
- Patients with severe burn patients should be transported to a burn center unless ETA > 30 minutes.
- Keep patient warm.
- Superficial and partial thickness burns < 10% may have wet dressings applied.
- Burns > 10% BSA may be covered with clean, dry sheets or dressings.
- Remove clothing and jewelry from injured parts. **Do not remove items which have adhered to the skin.**
- Inhalation injuries with an unsecured airway should be transported to the nearest facility.
- Chemical burns are HazMat situations and must be grossly decontaminated at the scene.
- BP may be taken over damaged tissue if no other site is accessible.

SPECIFIC CARE:

- Assess for respiratory distress, stridor, hoarseness, sooty sputum, singed eyebrows and nares, or burns of the face or airway.
- Determine type of burn and treat:
  - Radiation burns:
    - Treat critical medical conditions first.
    - Treat as thermal burns except when burn is contaminated with radioactive materials, then treat as a HazMat situation. Decontaminate the patient.
    - Consider contacting HazMat team for assistance in contamination cases
  - Inhalation Burns:
    - Provide **O_2.**

CARBON MONOXIDE (CO) POISONING

- Provide high flow **O_2** to all suspected CO poisonings.
- Pulse oximeter will give false readings and should not be utilized.

HEAT EXPOSURE

General Considerations

- Geriatric patients, pediatric patients, patients with a history of spinal injury, and diabetics are most likely to suffer heat-related illnesses. Other contributory factors may include heart medications, diuretics, cold medications, and psychiatric medications.
- Heat exposure can occur due to increased environmental temperatures, prolonged exercise or a combination of both. Environments with temperatures above 90°F and humidity over 60% present the most risk.

Specific Care

- Move patient to a cool environment.
- Remove patient's clothing. Apply water to the skin to cool the patient.
- Apply cold packs to underarms and groin area.
- Cold water submersion is an acceptable method for cooling heat stroke patients. You may encounter patients in cooling body bags. The goal is to lower temperature to < 102.5^0F.
- If conscious and not vomiting or extremely nauseous, provide oral fluids.
- Be prepared for seizures.
- Consider other medical conditions (e.g., overdose, hypoglycemia, CVA) and treat accordingly.
- Hyperthermia patients should be transported to a Trauma Center.

EYE INJURIES

- If possible, contact lenses should be removed. Contacts should be transported with patient.
- Use nasal cannula with IV tubing for irrigation.
- Chemical Burns:
  - Irrigate immediately with **NS** or water for a minimum of 30 minutes or until patient transport is completed.
  - Determine chemical involved. Bring MSDS, if available.
- Major Eye Trauma:
  - Do not irrigate if penetrating trauma.
  - Cover both eyes to limit movement.
  - Do not use a pressure or absorbent dressing on or near any eye that may have ruptured, or have any penetrating trauma.
  - The patient should be transported with head elevated at least 30°.

RESPIRATORY DISTRESS

- Evaluate breath sounds:
- Obtain Pulse Oximeter and capnography reading.
- Provide high flow **O_2**.

PULMONARY EDEMA

- Assess for and note: cyanosis, clammy skin, absence of fever, coughing, wheezing, labored breathing, diaphoresis, pitting edema, bilateral lower lobe rales, tachypnea, apprehension, JVD, and inability to talk.
- Provide **0_2**

ASTHMA or EMPHYSEMA or COPD

- Provide **O_2** as needed.
- Call for transport..

ALLERGIC REACTION or ANAPHYLAXIS

- If severe allergic reaction:
  - **P** If < 15 kg, **EpiPen Jr**
  - **P** If ≥ 15 kg and < 30 kg, **Adult EpiPen**
  - If ≥ 30 kg, give both **Adult EpiPen and EpiPen Jr**
- If applicable, apply ice pack.

SEIZURES

- BVM and nasopharyngeal airway *during* seizure as needed
- Maintain normothermia.
- When obtaining history be sure to include the following:
  - Description of seizures, areas of body involved, and duration
  - Other known medical history; (e.g., head injury, diabetes, drugs, alcohol, stroke, heart disease, recent fever or illness, possible toxicological agents)

OVERDOSE or POISONING

EMS personnel should contact MCP for suspected poisonings. Poison Control is intended for use by the general public.

- Manage airway.
- Gather appropriate history.
- Ingested Poison
  - Container and remaining medication should be transported with the patient.
- If the patient has depressed respirations or has a high index of suspicion of narcotic overdose, or there is suspicion of drug abuse in cardiac arrest, administer **Naloxone.**
- Consider patient restraint before administration of **Naloxone**.

A **Naloxone 2 mg IN**. Titrate to achieve adequate respirations. May repeat as many as needed.

P **Naloxone:**
- ≤ 20 kg **0.1 mg/kg IN,** (max dose 2 mg).
- > 20 kg **2 mg IN.** Titrate to adequate respirations.

NOTE: Naloxone administration should be to improve respirations in an unresponsive patient with a hypoventilation condition and not to awaken an unconscious patient. It should be given slowly. Narcan can precipitate narcotic withdrawal with all of its problems. Once Naloxone is administered, it is encouraged that the patient be transported by EMS.

NOTE: Most pediatric patients with respiratory depression do not have narcotic overdose. They are either septic or have respiratory failure.

ABDOMINAL PAIN

- Ensure an abdominal exam which includes inspection, auscultation and palpation is performed and documented on every patient with abdominal pain.
- Assess and document pain using the OPQRST acronym:
  - O = Onset
    - Was the onset sudden or gradual?
  - P = Provocation and Palliation
    - What causes it?
    - What makes it better or worse?
  - Q = Quality
    - What kind of pain is it?
  - R = Region and Radiation
    - Where is the pain located?
    - Does it radiate?
  - S = Severity and Scale
    - Does it interfere with activities?
    - How does it rate on a severity scale of 1 to 10?
  - T = Timing and Type of Onset
    - How often does it occur?
    - When did it begin?
- Position of comfort
- Give nothing by mouth.
- Assess for trauma, pregnancy, illness, or potential ingestion.

OBSTETRICAL EMERGENCIES

- **ABSOLUTELY NO PREGNANT PATIENTS TO DAYTON CHILDREN'S HOSPITAL**
- Consider the possibility of ectopic pregnancy in females of child-bearing age.
- Aggressively treat for hypovolemic shock. Do not rely on standard vital sign parameters.
- Give psychological support to patient and family.
- Be sure to send all expelled tissue to the hospital.
- Ask for first day of last menstrual period.
- Pregnant patients of any age $\geq$ 20 weeks gestation should be taken to maternity department; < 20 weeks gestation should go to the emergency department.
- Pregnant trauma patients should be transported to an Adult Trauma Center with labor and delivery capabilities

CARDIAC ARREST IN PREGNANCY

- Causes of cardiac arrest include: pulmonary embolism, trauma, hemorrhage, and congenital or acquired cardiac disease.
- Follow all cardiac arrest protocols while awaiting transport.
- To minimize effects of the fetus pressure on venous return, apply continuous manual displacement of the uterus to the left, or place a pillow under the right abdominal flank and hip.
- Administer chest compressions slightly higher on the sternum than normal.

THIRD TRIMESTER BLEEDING

- Place patient in left lateral recumbent position.
- Apply continuous manual displacement of the uterus to the left, or place a wedge (pillow) under the right abdominal flank and hip.

CHILDBIRTH

General Considerations

- The patient should be transported to a hospital with obstetrical capabilities unless delivery is imminent (the baby is crowning during a contraction).
- Visualize the perineal area only when contractions are less than five minutes apart.
- Place a gloved hand inside the vagina only in the case of breech delivery with entrapped head, or prolapsed umbilical cord.
- Apply gentle pressure on the baby's head with a flat hand to prevent an explosive delivery.
- Run reports must be completed for each patient. The newborn is a separate patient from the mother.

Specific Care

- Obtain history of patient condition and pregnancy, including contraction duration and interval, due date, first day of last menstrual period, number of pregnancies, number of live children, prenatal care, multiple births, possible complications, and drug use.
- Keep the newborn warm.
- Cut the umbilical cord and then place the baby to suckle at the mother's breast.
- Obtain one, five and ten minute APGAR scores if time and patient condition permit.

NOTE: Fundal Height refers to the level of the upper part of the uterus.

Changes in Fundal Height During Pregnancy:

Above the symphysis pubis:	>12-16 weeks gestation
At the level of the umbilicus:	20 weeks
Near the xiphoid process:	within a few weeks of term

DELIVERY COMPLICATIONS

- Place mother on **O_2** by NRB.
- **Cord around baby's Neck**:
  - As baby's head passes out of the vaginal opening, feel for the cord.
  - Initially try to slip cord over baby's head.
  - If too tight, clamp cord in two places and cut between clamps.

- **Breech Delivery**:
  - When the appendages or buttocks first become visible, the patient should be transported immediately to the nearest facility.
  - If the head is caught, support the body and insert two fingers forming a "V" around the mouth and nose.

- **Excessive Bleeding**:
  - Treat for shock.
  - Post-delivery, massage uterus firmly and put baby to mother's breast.

- **Prolapsed Cord**:
  - When the umbilical cord is exposed prior to delivery, check cord for pulse.
  - The patient should be transported immediately with hips elevated and a moist dressing around cord.
  - Insert two fingers to elevate presenting part away from cord, distribute pressure evenly if occiput presents.
  - Do not attempt to reinsert cord.

Obtain **APGAR** scores at 1, 5 and 10 minutes post-delivery.

SCORE	0	1	2
Appearance	Blue or pale	Body pink; extremities blue	Completely pink
Pulse	Absent	Slow (< 100)	> 100
Grimace	No response	Grimace	Cough or sneeze
Activity	Limp	Some flexion of extremities	Active motion
Resp. effort	Absent	Slow or Irregular	Good crying

NEWBORN CARE & RESUSCITATION

General Considerations

- **P** As soon as the baby is born:
  - Dry.
  - Warm.
  - Maintain airway.
    - Place in the sniffing position (1" towel under shoulders).
    - Suction infant until airway is clear.
- **P** If the newborn delivers with meconium-stained amniotic fluid, but is vigorous, with strong respirations, good muscle tone, and heart rate > 100 BPM; follow the same suctioning procedures as for infants with clear fluid.
- **P** If the newborn delivers with meconium-stained amniotic fluid and is depressed, has poor respiratory effort, decreased muscle tone, or heart rate < 100 BPM; suction *before* taking other resuscitative steps.
- **P** Bulb suctioning is preferred. Mechanical suction may be used on infants only if the suction pressure does not exceed 100 mmHg or 136 cmH_2O.
- **P** If drying and suctioning has not provided enough tactile stimulation, try flicking the infant's feet or rubbing the infant's back. If this stimulation does not improve the infant's breathing, then BVM assist may be necessary.
- **P** Avoid direct application of cool oxygen to infant's facial area as may cause respiratory depression due to a strong mammalian dive reflex present immediately after birth.
- **P** Use length-based resuscitation tape (e.g., Broselow Tape).

Specific Care

- **P** After delivery of the infant;
  - Assess the airway and breathing.
  - Dry.
  - Position head lower than body.
- **P** Ventilate with BVM at 40-60/min:
  - To increase HR if < 100
  - For apnea or persistent central cyanosis.
- **P** HR < 60 begin CPR.
  - Compress at 120/min.
  - Compression to Ventilation ratio of 3:1

SAFE HARBOR

- **P** Voluntary Separation of Newborn Infant
- **P** Safe Harbor (Ohio House Bill 660) is designed to allow desperate parents to separate from their babies to hospitals, EMS, or law enforcement agencies, confidentially.
- **P** Stipulations of separation:
  - Infant can be no more than 30 days old.
  - Infant can have no signs of abuse or neglect.
- **P** History which should be obtained:
  - Date and time of birth
  - Any family medical history
  - Information regarding prenatal care
  - Information about the birth.
- **P** Information should be obtained in a manner which will not lead to the revealing of the identity of the parents. Information collected should be based on patient (infant) care needs and assure confidentiality.
- **P** The infant should be transported to the hospital.

FEVER

- **P** All infants < 2 months of age with a history or reported temperature of > 38.0^0 C. (100.4^0 F.) or < 35.6^0 C. (96.0 ^{0}F.) should be transported to the hospital.

APPARENT LIFE THREATENING EVENT (ALTE)

An Apparent Life Threatening Event involves any infant < 1 year of age that is witnessed with a frightening event by an observer and involves some combination of the following:

Apnea
Choking or gagging
Color change (cyanosis, pallor)
Change in muscle tone (limpness, sometimes rigidity)

***Children who experience an ALTE event often times have a normal exam on assessment. However, they should be transported to the hospital for further assessment. It is possible they have a serious underlying condition and the observed symptoms may reoccur. Assume the history given by the caregiver is accurate. Be persistent about the seriousness of the event and the need to transport.**

- Also referred to as a BRUE (Brief Resolved Unexplained Event)
- Support ABCs
- Obtain a medical history- most common causes of ALTE include: gastroesophageal reflux disease (GERD), nervous system disorders (such as seizures or brain tumors), and infections (such as meningitis). Less common causes include heart disorders, metabolic disorders, child abuse, and narrowing or blockage of the airways. A cause cannot be determined in 50% of ALTE cases.
- Perform a complete a Head–to-Toe physical exam.
- Keep warm, transport to the hospital

THE FOLLOWING SHOULD BE NOTED, BUT NOT LIMITED TO:

Document symptoms of the event given by the observer:

- Was the child apneic, cyanotic or limp during event?
- Infant's color, respirations and muscle tone
- Was seizure-like activity noted?
- Was any resuscitation attempted or did event resolve spontaneously?
- How long did the event last?

Past Medical History:

- Recent trauma, infection (e.g., fever, cough)
- History of gastroesophageal reflux (GERD)
- History of congenital heart disease
- History of seizures
- Medication history
- Birth defects

Examination/Assessment:

- Head-to-Toe exam for trauma, bruising, or skin lesions
- Check anterior fontanel: is it bulging, flat or sunken?
- Pupillary exam
- Respiratory exam for rate, pattern, work of breathing and lung sounds
- Cardiovascular exam symmetry of brachial and femoral pulses
- Neuro exam for level of consciousness

Observe for repeated event of reported occurrences

PEDIATRIC ABUSE or NEGLECT

P Ohio Revised Code requires that EMS providers report incidents of abuse to their county's children's services agency, or to a municipal or county peace officer. Hospitals have copies of the GDAHA-supplied EMS Social Services Referral Form. These should be used both to report cases of abuse to the appropriate agencies and to allow hospital social services staff to provide a continuum of care.

P Simply notifying hospital personnel about concerns of maltreatment do not meet mandated EMS reporting responsibilities. If any maltreatment is suspected, the EMS provider MUST, by law, notify the local public children services agency or law enforcement as soon as possible.

Pediatric Public Social Services Agencies			
County	**Phone**	**After Hours Phone**	**Fax**
Butler	(513) 887-4055	(513) 868-0888	(513) 887-4260
Champaign	(937) 484-1500	Contact County SO (937) 484-6092	(937) 484-1506
Clark	(937) 327-1700	(937) 324-8687	(937) 327-1910
Darke	(937) 548-7129	(937)-548-2020	(937) 548-8723
Greene	(937) 562-6600	(937) 372-4357	(937) 562-6650
Miami	(937) 335-4103	Contact County SO (937) 440-3965	(937) 339-7533
Montgomery	(937) 224-5437	(937) 224-5437 (same as daytime)	(937) 276-6597
Preble	(937) 456-1135	(937) 456-1135 (same as daytime)	(937) 456-6086
Shelby	(937) 498-4981	Contact County SO (937) 498-1111	(937) 498-1492
Warren	(513) 695-1558	(513) 695-1600	(513) 695-1800

ADULT ABUSE or NEGLECT

A EMS **MUST**, by law, report all alleged or suspected adult abuse or neglect to the appropriate agency. Ohio Revised Code requires providers to report incidents of abuse to their county's adult protective services agency or local law enforcement as soon as possible. **Simply notifying hospital personnel about concerns of maltreatment does NOT meet the mandated EMS reporting responsibilities.**

A Hospitals have copies of the GDAHA-supplied EMS Social Services Referral Form. These should be used both to report cases of abuse to the appropriate agencies and to allow hospital social services staff to provide a continuum of care. EMS departments may contact GDAHA at 228-1000 or www.gdaha.org for a supply of these forms.

- White copy—send to the appropriate agency (call as well).
- Yellow copy—leave with the hospital records.
- Pink copy—retain with EMS copy of the run sheet.

A Document all efforts that EMS made to report the suspected abuse on the run sheet; include name of agency notified, method used, and name of person contacted.

Adult Public Social Services Agencies			
County	**Phone**	**After Hours Phone**	**Fax**
Butler	(513) 887-4081	Not Listed (County SO: 513-785-1000)	(513) 785-5969
Champaign	(937) 484-1500	Contact County SO (937) 484-6092	(937) 484-1506
Clark	(937) 327-1700	(937) 324-8687	(937) 327-1910
Darke	(937) 548-7129	(937)-548-2020	(937) 548-4928
Greene	(937) 562-6315	Not Listed (County SO: 937-562-4800	(937) 562-6177
Miami	(937) 440-3471	Contact County SO (937) 440-3965	(937) 335-2225
Montgomery	(937) 225-4906	Not Listed (County SO: 937-225-4357	(937) 496-7464
Preble	(937) 456-1135	(937) 456-1135 (same as daytime)	(937) 456-6086
Shelby	(937) 498-4981	Contact County SO (937) 498-1111	(937) 498-1492
Warren	(513) 695-1420	(513) 425-1423	(513) 695-2940

PATIENT COMPETENCY and CONSENT, PSYCHIATRIC and COMBATIVE PATIENTS

Per Ohio Revised Code, an EMT, AEMT, or a Paramedic may not "pink slip" (transport to the hospital for mental health evaluation against their will) an individual who is alert and oriented, even if they are threatening harm to themselves or others. Only a health officer (such as police, crisis worker, psychiatrist, or physician) can pink slip a person. The GMVEMSC strongly recommends that each EMS department, in consultation with its medical director and local law enforcement, have a procedure to deal with these types of situations. This does not preclude action being taken to prevent imminent harm to the patient or others, if it is safe to do so.

- Determine patient competency and consent.
- Obtain medical history:
  - Suicidal or violent history
  - Previous psychiatric hospitalization, when and where
  - Location where patient receives mental health care
  - Medications, recreational drugs and alcohol: amount, names
- Do not judge, just treat.
- All patients who are not making rational decisions and who are a threat to themselves or others should be transported for medical evaluation. Threat of suicide, overdose of medication, drugs or alcohol and threats to the health and well-being of others are considered not rational.
- Consider a patient to be incapable to make medical decisions if they are:
  - Suicidal
  - Confused
  - Severely developmentally or mentally disabled and injured/ill
  - Intoxicated
  - Injured/ill with an altered mental status
  - Physically/verbally hostile
  - Unconscious
- Consider and treat possible medical causes for patient's condition:
  - Hypoxia
  - Hypoglycemia
  - Drug intoxication/side effects/drug withdrawal
  - Seizures and postictal states
  - Intracranial hemorrhages
- Consider staging until police have made the scene safe.
- Have patient searched for weapons.
- A restrained patient should not be transported in the prone position with hands and feet behind their back or sandwiched between backboards or other items.
- Recheck often a restrained patient's ability to breathe.
- Have the ability to remove restraints if the patient vomits or develops respiratory distress
- Explain the need for restraint to the patient.
- Document thoroughly the restraints used, on which limbs, and justification for restraints.
- Our region has limited inpatient hospital beds for mental/behavioral health (MH/BH) patients. Most hospitals in our region do not have an inpatient MH/BH unit.
- In many cases resulting from a general 9-1-1 call for MH/BH issues, the patient will be treated and released, and can adequately be cared for in **any** ED. Further, all of these patients require medical screening.
- It is difficult for law enforcement or EMS to triage MH/BH patients who require inpatient treatment from those who don't.
- When patients have been seen on the same day by a MH/BH professional (e.g., Crisis Care, Eastway, etc.) who indicates to EMS that the patient will need inpatient hospitalization, the MH/BH professional should provide appropriate paperwork at the time of transport, and may indicate where the patient should be transported, with one option being the closest hospital.

- When calls are received directly from adult patients, take the patient preferentially to a facility where the individual has previously been treated and where the patient's medical records and providers are available.
- In all other cases, adult patients should be transported to the closest ED.
- Pediatric patients (< age 16) with MH/BH issues, including those with underlying medical issues, should be transported to Dayton Children's Hospital Emergency Department.
- Exceptions to the above:
    - It is medically necessary to transport the patient to the closest hospital for stabilization.
    - It is unsafe to transport the patient to the preferred/recommended facility due to adverse weather or ground conditions or excessive transport time.
    - Transporting the patient to the preferred/recommended facility would cause a critical shortage of local EMS resources.
    - Patient requests transport to a different facility.

SALT TRIAGE SYSTEM (MCI)

The **SALT** (**S**ort, **A**ssess, **L**ife-Saving Intervention, **T**reatment/Transport) triage system was developed by the Centers for Disease Control and Prevention (CDC) to address limitations in START and other triage systems. It has been endorsed by numerous national EMS groups. It is designed to reduce triage time and has an additional triage category to better utilize resources, and CDC has proposed SALT as the national standard for MCI triage.

Use **SALT** triage to assess any significant number of victims rapidly. It can be used easily and effectively by all EMS personnel. Triage materials, such as new tags, were provided to EMS agencies throughout our region by a federal grant through Dayton MMRS.

Primary and Secondary Triage Prior to Transport

- Initial Triage
  - Use triage ribbons (color-coded strips), not triage tags, during initial triage. One should be tied to an upper extremity in a VISIBLE location (on the right wrist, if possible).
    - RED – Immediate
    - YELLOW – Delayed
    - GREEN – Minimal
    - GRAY – Expectant*
    - BLACK – Dead (both ribbons and triage tags use a black & white Zebra stripe rather than black for easier visibility in low light).
    - ORANGE and Polka Dot Ribbon - used in addition to one of the above ribbons to indicate victim has been contaminated with a hazardous material. The dots are to make the Orange easier to distinguish from Red.
  - Move as quickly and safely as possible, making quick decisions. Remember that the victim will be re-triaged, probably multiple times, and the category will be revised, up or down, whenever needed.
  - Over-triage can be as harmful as under-triage. If everyone is tagged red, those who are truly red will receive delayed treatment, delayed transport, and delayed definitive care.
  - *Note: Expectant does NOT mean dead.
    - It means the patient is unlikely to survive given the current resources.
    - Treatment and transport should be delayed until more resources, field or hospital, are available. If there are delays in the field, consider requesting orders for palliative care, e.g., pain medications if time and resources allow.
- Secondary Triage
  - Secondary Triage **must** be performed on all victims prior to transport.
  - Treatment Area may also be the Casualty Collection Point (CCP), or the CCP may be separate.
    - Patients should be reassessed periodically, including when moved to a CCP, or when their condition or resources change.
  - Utilize Triage Tags and complete pertinent and available information on the tag.
    - Affix the tag to the victim **using the triage ribbon**.
    - Tags are applied after patients enter the Treatment Area or CCP, or by Transport Group if the patient is being directly removed without going to the Treatment Area.
  - Orange Ribbons (indicating contaminated patients) are removed during decon.
    - EMS always has responsibility for performing primary decontamination prior to transport, however, the hospital must be aware of both contamination and decontamination.
    - When contaminated patients are discovered, each of those patients initially receives two ribbons: one with a triage category (Red, Yellow, Green, Gray, or Black, Zebra, and the other the Orange polka-dot ribbon.
    - Make sure to decon under the ribbons.
    - After patients are deconned, the orange ribbon is removed
    - Triage Tags for such patients get two check marks on the Orange strip: both Dirty and Decontaminated. That way the hospitals know the patient has had field decon, but may still be somewhat “dirty”.

        - **Notify hospitals of an MCI involving victim contamination.** Consider use of the Regional Hospital Notification System.
    - Use Triage Tags with individual barcodes consistent with this Standing Order and the Ohio patient tracking system (OHTrac).
- Priority for transport is determined in the Treatment Area or by the Transport Group.
- Patient allocation, that is, distribution of patients among various hospitals, is one of EMS' most crucial tasks.
    - **Do not overload any hospital**, regardless of transport distance to other hospitals.
    - In an MCI, many trauma patients will need to be transported to non-Trauma Centers. **All hospitals** will accept and stabilize trauma patients during MCIs.
    - As Transport assigns patient allocation, consider the likelihood that the closest hospitals may be overwhelmed by patients who were not transported by EMS.
    - In large scenarios, consider activation of the Forward Movement of Patients Plan.
        - An introduction to Forward Movement of Patients is included in these Standing Orders under the heading Crisis Standards of Care in Massive Events. Full information on the process can be found in the Dayton MMRS Regional MCI Plan Template.

SORT, ASSESS, LIFE-SAVING INTERVENTION, TREATMENT/TRANSPORT PROCESS
S – Sort

- Global Sorting: Action 1
    - Action: "Everyone who can hear me please move to [designated area] and we will help you" (use loud speaker if available)
    - Goal: Group ambulatory patients using voice commands
    - Result: Those who follow this command – last priority for individual assessment (Green)
    - Assign someone to keep them together (e.g., PD, FD, a bystander) and notify Incident Command or EMS Group/Branch of number of patients and their location. ***Do not forget these victims.*** Someone must re-triage them as soon as possible.
    - In smaller incidents, such as a motor vehicle crash with a few victims where you do not want any of them to move on their own, skip Action 1, and go to Global Sorting Action 2
- Global Sorting: Action 2
    - Action: "If you need help, wave your arm or move your leg and we will be there to help you as soon as possible"
    - Goal: Identify non-ambulatory patients who can follow commands or make purposeful movements
    - Result: Those who follow this command – second priority for individual assessment
- Global Sorting: Result
    - Casualties are now prioritized for individual assessment
        - Priority 1: Still, and those with obvious life threat
        - Priority 2: Waving/purposeful movements
        - Priority 3: Walking
- Begin assessing all non-ambulatory victims where they lie, performing the four Life Saving Interventions (LSIs) as needed, but only within your scope of practice, and only if the equipment is readily available.
- Each victim must be triaged as quickly as possible.

Assess:

- **Is the patient breathing?**
    - If not, open the airway. In children, consider giving two rescue breaths.
    - If the patient is still not breathing, triage them to **BLACK**, using a zebra-striped ribbon. Do not move the patient except to gain access to a living patient.
    - If patient is breathing, conduct next assessment.

- **Assess for the following:**
    - Can the patient follow commands or make purposeful movements?
    - Does the patient have a peripheral pulse?
    - Is the patient not in respiratory distress?

- Is hemorrhaging under control?
  - If the answer to **any** of those questions is no and the patient **IS** likely to survive given current resources, tag them as **RED (Immediate).**
  - If the answer to **any** of those questions is no and the patient is **NOT** likely to survive given current resources, tag them as **GRAY (Expectant).**
  - If the answer to **all** of those questions is yes but injuries are not minor and require care, tag patient as **YELLOW (Delayed).**
    - **YELLOWs have serious injuries and need care, though not as urgently as REDs. On secondary triage, some Yellows will need higher priority transport than others.**
      - If the answers to **all** of those questions is yes and the injuries are minor, tag patient as **GREEN (Minimal)**.

- **Two mnemonics for the four Assess Questions:**

  - CRAP:
    - C – Follows Commands
    - R – No Respiratory Distress
    - A – No (uncontrolled) Arterial bleeding
    - P – Peripheral Pulse Present
  - A second mnemonic is the use of good or bad. Don't be confused by the double negatives in two of the questions. Instead, think of the questions in terms of "bad" or "good". If the answer to the questions is "bad" (i.e., can't follow commands, absent peripheral pulse, respiratory distress, or uncontrolled hemorrhage are all "bad"), then the patient is tagged either RED or GRAY.

Life Saving Interventions:

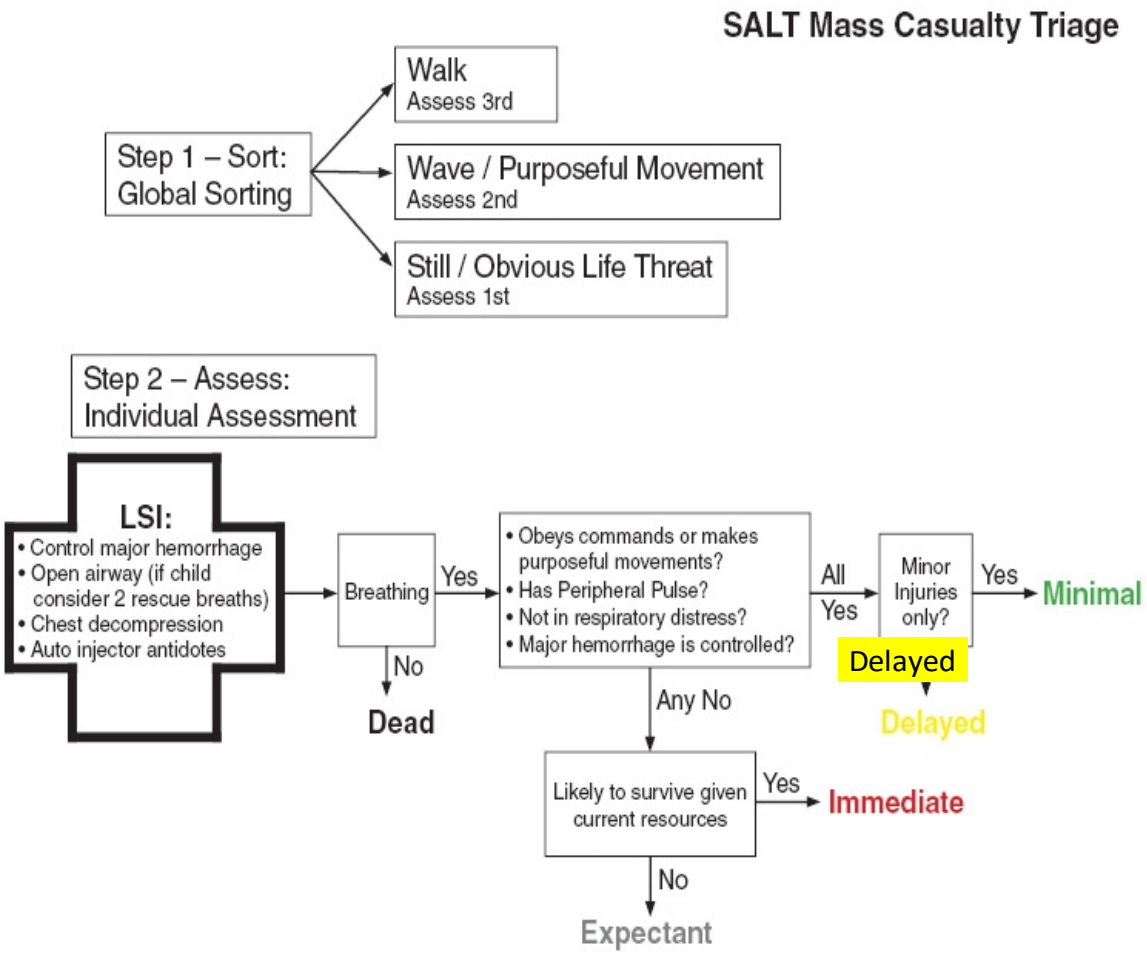
- **Only** correct life-threatening problems during triage.
  - Control major hemorrhage
  - Open airway (if child, consider giving two rescue breaths)
  - Needle chest decompression
  - Auto injector antidotes

Treatment/Transport:

- Transport/treatment priority is typically given to **RED (Immediate)**, **YELLOW (Delayed)**, then **GREEN (Minimal)**.
  - **GRAY (Expectant)** patients should be treated/transported as resources allow.
- Patients should be reassessed periodically, including when moved to the CCP, or when their condition or resources change.

Special Considerations:

- Even after applying Triage Tags, the main indicator of patient condition is the Triage Ribbon. If the patient's condition or the triage priority changes, indicate that on the tag. **Continue to use the same tag, even if the condition changes repeatedly, changing the ribbon to indicate the patient's current condition.**


SALT Mass Casualty Triage
Step 1 – Sort:
Global Sorting
Walk
Assess 3rd
Wave / Purposeful Movement
Assess 2nd
Still / Obvious Life Threat
Assess 1st
Step 2 – Assess:
Individual Assessment
LSI:
• Control major hemorrhage
• Open airway (if child consider 2 rescue breaths)
• Chest decompression
• Auto injector antidotes
Breathing
Yes
No
Dead
• Obeys commands or makes purposeful movements?
• Has Peripheral Pulse?
• Not in respiratory distress?
• Major hemorrhage is controlled?
All
Yes
Minor Injuries only?
Yes
Minimal
Delayed
Delayed
Any No
Likely to survive given current resources
Yes
Immediate
No
Expectant

CRISIS STANDARDS OF CARE IN MASSIVE EVENTS

Some incidents are so large as to require extraordinary EMS procedures. Those scenarios are sometimes referred to as Mass Casualty Events (MCEs), instead of Mass Casualty Incidents (MCIs). This Standing Order introduces EMS procedures which could be utilized in very large emergency scenarios, or when the duration is extended.

"Crisis Standards of Care" is a new term, but not a new concept. EMS uses altered standards during triage. With concerns about pandemics, there is more planning for possible crises. Crisis Standards of Care during an MCE may be partially issued by the State, and could result in a temporary expansion of the EMS scope of practice.

In some circumstances, EMS may be authorized to triage selected patients for transport to other healthcare facilities. These could include Urgent Care Centers, an "Acute Care Center" (ACC) or a "Neighborhood Emergency Help Center" (NEHC), or a Disaster Medical Assistance Team (DMAT).

Dayton MMRS is required to have a plan called, "Forward Movement of Patients." The intent of this plan is to relieve the burden on local hospitals by transporting patients, possibly directly from the scene, to more distant hospitals.

In the event of an MCE, especially one lasting days or longer, Greater Miami Valley EMS Council, with the approval of the Regional Physicians Advisory Board (RPAB), may promulgate "Just in Time Standing Orders" (JITSO). With approval from Ohio Department of Public Safety, these orders might include triage standards for transport to other healthcare facilities and other crisis standards of care; possibly exceeding the standard scope of practice for EMS.

A regional protocol for Functional Needs Shelter Triage has been added to the Optional Standing Orders Manual and is also available at gmvemsc.org on the Training Materials page. The protocol is used to help determine whether individuals with functional needs can be safely sheltered in a Red Cross Shelter during a disaster.

This Shelter Triage Protocol is a pre-approved Just-In-Time Standing Order (JITSO), authorized by the RPAB for use by an EMS agency assisting the Red Cross with shelter Triage. It is intended to be printed and given to paramedics, nurses, and other healthcare personnel at the time of a shelter operation.

At the option of local department chiefs and medical directors, the same protocol can be used during a disaster to determine patients who would be more appropriate for transport to Red Cross Shelters than to hospitals. That concept was endorsed by RPAB, and was used on the East Coast during Hurricane Sandy. In those cases, EMS should, if possible, contact the shelter before transporting. If locations or contact information for shelters is not known, contact the County EMA or the Red Cross. When transporting these non-emergency patients to shelters, it is critical that the patients bring their medications and medical equipment with them.

HAZMAT

Initial Actions

- Personnel safety
  - Consider potential for secondary devices.
  - PPE
  - Personnel & Equipment staging
- Call for additional resources.
  - (Medic Units, Engines for personnel/resources/Decon, **HazMat**, Law Enforcement, etc.)
- Field Decontamination
  - Remove **all** contaminated clothing. This action may remove as much as 85% of solid or liquid and virtually all of gaseous contaminants.
  - Thoroughly wash with {Dawn} dishwashing detergents paying special attention to skin folds and other areas where simple irrigation may not remove it.
  - If a patient has been contaminated with any fuel, irrigate well. For example, diesel fuel can cause chemical burns if left in contact with the skin.
  - A patient should not be transported until gross decon is completed.
- Contact Medical Control and the hospital immediately to allow time for their set-up of decontamination equipment.
  - Provide the following information:
    - Estimated number of confirmed or potential adult and pediatric patients
    - Signs and symptoms exhibited by the patients
    - Name and identification information of the contaminant if known, or as much information as possible
    - Form of the contaminant (liquid, gas, etc.) if known
    - Routes of exposure of the patients (percutaneous, inhalation, ingestion, etc.) if known
    - Additional anticipated decontamination needs if necessary
  - ♦ In the event of an MCI involving cyanide or nerve agents, request an "Antidote free" order, allowing you to treat all of the patients on the scene with the appropriate antidote, rather than calling for patient orders individually.

HAZARDOUS DRUG EXPOSURES AND SPILLS

- Hazardous drug situations include:
  - Patients who have continuous IV chemotherapy at home.
  - Patients who have just had IV chemotherapy at the clinic or hospital and their body fluids could have traces of hazardous drug for 48 hours.
  - Patients taking oral chemotherapy drugs.
- Potential routes of exposure include:
  - Absorption through skin or mucous membranes
  - Accidental injection by needle stick or contaminated sharps
  - Inhalation of drug aerosols, dust, or droplets
  - Ingestion through contaminated food, tobacco products, beverage, or other hand-to-mouth behavior
- EMS should don PPE whenever there is a risk of hazardous drug being released into the environment.
  - Handling leakage from tubing, syringe, and connection sites
  - Disposing of hazardous drugs and items contaminated by hazardous drugs
  - Handling the body fluids of a patient who received hazardous drugs in the past 48 hours
  - Cleaning hazardous drug spills
- Guidelines for PPE:
  - Gloves: Double gloves are recommended. Latex gloves provide no chemical protection. Nitrile gloves are recommended for routine patient care of Haz-mat patients including chemo patients. Change gloves every 30 minutes.
  - Disposable non-permeable gowns
  - Respirators: NIOSH-approved respirator mask
  - Eye and face protection: wear a face shield whenever there is a possibility of splashing.

- Procedures:
  - Use universal precautions when handling any body fluids of a patient who has received chemotherapy within 48 hours.
  - Accidental skin exposure: Remove contaminated garments, place in leak-proof plastic bag, and immediately wash contaminated skin with soap and water. Rinse thoroughly.
  - Accidental eye exposure: immediately flush eye with saline solution or water for at least 30 minutes or until patient transport is completed.
  - Wipe up liquids with an absorbent pad or spill-control pillow.
  - Disposal of hazardous drugs and materials contaminated with hazardous drugs per MSDS or Haz Mat Team direction
  - Report and document spills as required.
- For more information, contact:
  - The homecare agency that is supplying the infusion.
  - The physician who ordered the infusion.
  - A hospital pharmacy, if necessary (there should be a label on the IV bag with the drug's name, concentration and dosage.
  - Consult with the appropriate Haz-Mat team.

HAZMAT: BIOLOGICAL

- ♦ {In preparation for the possibility of a bioterrorist attack, Departments may store a supply of **Ciprofloxacin (Cipro)** or **Doxycycline**. They can provide prophylaxis against Anthrax, Cholera, and some protection against Plague.}
- Dayton MMRS maintains a supply of **Cipro** and **Doxy** sufficient to provide treatment for the first three days for all firefighters, EMS personnel, law enforcement officers, EMA personnel, public safety dispatchers, and their immediate families for use in a bioterrorist attack. These may be obtained when needed by contacting **937-333-USAR (8727).**

HAZMAT: CYANIDE

- In any case of known or strongly suspected cyanide intoxication, Cyanide antidote caches provided by Dayton MMRS are located throughout the region. To request a cache, call the Montgomery County RDC at **937-333-USAR (8727)**, and they will contact the cache agency closest to your incident. Those agencies have all agreed to respond on a mutual aid basis to your incident. If there are no paramedics on scene, be sure to request that the responding agency come with a paramedic.
  It is strongly recommended that agencies immediately call for the cyanide antidote cache whenever any of the following occur:
  - Dispatched on a report of a person trapped in a structure fire
  - Dispatched on a report of an incident involving cyanide
  - Report of a Mayday or firefighter down in a structure fire
- Provide 100% **O_2**
  - If unconscious, provide 100% **O_2** by BVM.
- CPR if indicated.
- ♦ It is critical to control any seizure activity, using **CANA Auto-injector.**
- In MCIs with suspected cyanide poisoning:
  - Control any seizure activity, using **CANA Auto-injector.**

HAZMAT: HYDROFLUORIC ACID (HF)

- Deaths have been reported from burns involving < 3% Body Surface Area. Ensure safety of EMS.
  - Begin decon and irrigate the chemical burn with water as quickly as possible.
- Flush affected eyes and skin with copious amounts of water or **Normal Saline** for a minimum of 30 minutes or until patient transport is completed.
- If ingested, do not induce vomiting. Dilute with water or milk.

ORGANOPHOSPHATE or NERVE AGENT EXPOSURE TREATMENT

General Considerations:

- Signs and Symptoms:
  - SLUDGEMM: Salivation, Lacrimation, Urination, Defecation, GI Upset, Emesis, Miosis, Muscle Twitching
- Mild to moderate cases should be treated with one or two doses of Mark I kits or Duodotes.
- Severe cases will generally require repeating every 5 minutes up to 3 doses.
- Atropine in these circumstances is **not** for bradycardia, which may or may not be present.
- Primary endpoints for treatment are diminished airway secretions (lungs are clear to auscultation), hypoxia improves, airway resistance decreases, and dyspnea improves
- Organophosphate poisonings may require more Atropine (> 3 Mark I Kits or 3 DuoDotes).
- Ohio law and GMVEMSC Standing Orders permit EMRs to administer Organophosphate/nerve agent antidotes by auto-injector only.
- Nerve agent/organophosphate antidotes are to be used to treat symptomatic patients, not given prophylactically

Specific Care: Organophosphate or Nerve Gas Poisoning

- **O_2**
- Treat any case of known or suspected Organophosphate or Carbamate (e.g., insecticides such as Parathion or Malathion); or nerve agent (e.g., Tabun, Sarin, Soman, VX) exposure as below:
- ♦ Administer **Atropine** every 5 minutes, as available until lungs are clear to auscultation. **Atropine** by **Mark I** auto-injector #1 (adults and children weighing over 90 pounds), by **AtroPen** auto-injector for children, or by **DuoDote**.
- ♦ Adults and children > 40 kgs, give Mark I **Atropine auto-injector or DuoDote**

P ♦ Children weighing 20 - 40 kgs, give the **1.0 mg Atropen auto-injector.**

P ♦ Children weighing < 20 kgs, give the **0.5 mg Atropen auto-injector**.

- ♦ Follow **Atropine** with **2-PAM (Pralidoxime**) which is **Mark I auto-injector Item 2** for older children and adults**.** If **DuoDote** was used, no second auto-injector is needed.
- Treat seizures with **Diazepam Auto-injector (CANA)**.

Administering the Nerve Agent Antidote Auto-Injector Kit:

- Anterolateral thigh is the recommended auto-injector site for both adults and pediatrics.
- Using the Mark I:
  1. Grasp syringe #1 (**Atropine)** and position the green tip of the AtroPen on victim's outer thigh Push firmly until auto-injector fires. Hold in place for 10 seconds to ensure Atropine has been properly delivered.
  2. Grasp syringe #2 (2-Pam) and position the black tip of the Combo Pen on victim's outer thigh. Push firmly until auto-injector fires. Hold in place for 10 seconds to ensure Pralidoxime has been properly delivered
- Procedures for DuoDotes, pediatric AtroPens, and Diazepam auto-injectors are similar.

Antidote Resources:

EMS Department Resources:

- {EMS Departments are authorized to stockpile large quantities of **Atropine, 2-PAM**, auto-injectors, and supplies (e.g., needles, syringes)}.
- GMVEMSC drug bags include:
  - **2 DuoDotes** (**Atropine** (2 mg) and **2-PAM** (600 mg) administered through a single auto-injector).
  - **2 Pediatric AtroPens (**1 each: 0.5 mg, 1.0 mg)
  - 1 Multi-dose 1 mg vial of **Atropine**

- **Dayton MMRS maintains a supply of organophosphate and cyanide antidotes in each county in Ohio Homeland Security Region 3.**
  - To obtain Dayton MMRS antidotes: call **937-333-USAR (8727).** The closest department with an antidote cache will respond as a mutual aid request.
  - Dayton MMRS antidotes may be requested for incidents too small to require a CHEMPACK.
  - If requesting a CHEMPACK, **simultaneously call 937-333-USAR (8727)** and request MMRS antidotes.

CHEMPACK Resources:

- Containers with enough antidotes to treat about 500 victims of a nerve agent or organophosphate incident
- CHEMPACK procurement:
  - ♦ Obtain MCP approval
- ♦ In an MCI, contact OSP Central Dispatch **866-599-LERP (5377)** and request a CHEMPACK and indicate that it meets both of the following criteria:
  - The Organophosphate or nerve agent has been identified, or patients are exhibiting signs and symptoms of exposure.
  - **AND** the need for antidotes is greater than the available resources.
  - Simultaneously contact **937-333-USAR (8727)** and request additional Nerve Agent Antidotes:
    - Regional drug cache to be used for incidents too small for a CHEMPACK
    - Has additional drugs that are not available in the CHEMPACK (e.g., Cyanide antidotes)
- OSP Central Dispatch will:
  - Notify closest CHEMPACK hospital
  - Dispatch Troopers to deliver the CHEMPACK to the MCI's staging area.
  - Troopers will expect EMS to sign a form indicating receipt.
- CHEMPACK contains:
  - **Atropine**—blocks effects of excess acetylcholine
    - 0.5 mg AtroPen auto-injectors (for patients < 20 kgs)
    - 1.0 mg AtroPen auto-injectors (for patients 20 - 40 kgs)
    - Multi-dose vials
  - **Pralidoxime Chloride (2-PAM)**—reduces levels of acetylcholine
    - 600 mg auto-injectors
    - Multi-dose vials
  - **Diazepam (Valium)**—treats seizures.
    - **Convulsive Antidote, Nerve Agent (CANA)** (10 mg **Diazepam** auto-injector)
    - Multi-dose vials
  - Mark I Kits (for patients > 40 kgs)
    - 2 mg **Atropine** auto-injector
    - 600 mg **2-Pam** auto-injector
- CHEMPACK types (both contain same drugs)
  - Hospital CHEMPACK contains more multi-dose vials for more precise dosing of children and long-term patients. Hospital CHEMPACKs are partitioned into thirds, each being marked with a red, yellow, or blue dot. Hospitals have the option to keep the red dot materials for potential use at their hospital. If a hospital opens its CHEMPACK, it must notify OSP Central Dispatch. (Hospitals may also request material from Dayton MMRS by calling **937-333-USAR (8727).**
  - EMS CHEMPACK contains more auto-injectors for ease of administration in the field.
- Limitations of CHEMPACKs:
  - Only useful against nerve agents or organophosphate
  - Only to be utilized when other resources are inadequate for number of victims.
  - CHEMPACKs opened contrary to guidelines will not be replaced by CDC and will result in the loss of a $250,000 asset.

HAZMAT: PEPPER SPRAY

- **{Sudecon Wipes}** can assist in the decontamination of patients or public safety personnel who have been sprayed with Pepper Spray.

REGIONAL HOSPITAL NOTIFICATION SYSTEM (RHNS)

Our area now has a Regional Hospital Notification System. The purpose is to provide one number for EMS, hospitals, and EMAs to call that will make rapid, simultaneous notifications in a Mass Casualty Incident/Event (MCI/MCE), or other major emergency.

The system can be used when an incident could involve a significant number of the region's hospitals. To activate the system, an incident commander calls **937-333-USAR (8727),** and requests a "Regional Hospital Notification." The agency calling must ask for a Dispatch Supervisor, and should provide the information below:

- Name of agency
- Nature of emergency
- Location of emergency
- General statement on severity, such as approximate number of victims
- Any other information to be conveyed

The Montgomery County Regional Dispatch Center (RDC) will immediately put out a computerized message to the RHNS Group with that information.

Activation of the RHNS will send simultaneous notifications to all of the following:

88th Medical WPAFB
Atrium Medical Center
Dayton Children's Hospital
Community Blood Center
Dayton MMRS Med. Director
GDAHA
Good Samaritan Hospital
Grandview Hospital
Greene Memorial Hospital
Huber Heights-GVH
Joint Township Memorial
Kettering Medical Center
Kindred Hospital
Lifecare Hospital
Mercy Hospital
Miami Valley Hospital
Miami Valley Hospital South
Miami Valley - Jamestown
Mont. Co. Off. of Emer Mgmt.
Reg. Healthcare Syst. Coord.
Reg. MMRS/RMRS Coord.
Reg. Public Health Coord.
Reid Memorial Hospital
Soin
Southview Hospital
Springfield Reg. Med. Cen.
Sycamore
Upper Valley Medical Center
VA Medical Center
Wayne Healthcare
Wilson Memorial Hospital

ABBREVIATIONS

Some abbreviations are case sensitive while others are content sensitive. Any words that can be readily abbreviated using a period have been left out of this list.

abdomen	abd
abdominal aortic aneurysm	AAA
abortion	Ab
acute coronary syndrome	ACS
acute myocardial infarction	AMI
acute pulmonary edema	APE
acute renal failure	ARF
acute respiratory distress/syndrome	ARD/ARDS
administer rectally	p.r.
advanced cardiac life support	ACLS
advanced directive	AD
advanced life support	ALS
after	p̄
against medical advice	AMA
alcohol	ETOH
alert & oriented	A&O
alert/verbal/pain/unresponsive	AVPU
antecubital fossa	AC
arteriosclerotic heart disease	ASHD
as necessary or needed	prn
as soon as possible	ASAP
aspirin	ASA
at	@
at bedtime	h.s.
atrial fibrillation	a-fib
atrial flutter/ tachycardia	AF/AT
atrioventricular	AV
automatic external defibrillator	AED
automatic transport ventilator	ATV
backboard	BB
bag-valve mask	BVM
basic life support	BLS
before	ā
below the knee amputation	BKA
births, number of	para
black	B
blood pressure	BP
blood sugar	BS
body substance isolation	BSI
body surface area	BSA
bowel movement	BM
bradycardia	brady
breaths per minute	bpm
by mouth	po
by or through	per
cancer	CA
capillary refill time	CRT
carbon dioxide	CO_2
carbon monoxide	CO

centimeter	cm.
cerebral palsy	CP
cerebrospinal fluid	CSF
cerebrovascular accident	CVA
cervical immobilization device	CID
cervical spine	C-spine
change	Δ
chest pain	CP
chief complaint	CC
chronic obstructive pulmonary disease	COPD
chronic renal failure	CRF
circulatory/sensory/motor	CSM
clear to auscultation bilaterally	CTAB
complaining of	c/o
congestive heart failure	CHF
coronary artery bypass graft	CABG
coronary artery disease	CAD
cubic centimeter	cc.
date of birth	DOB
dead on arrival	DOA
decreasing	↓
degree(s)	°
delirium tremens	DT's
dextrose in water – 50%	D50
dextrose in water - 10%	D10
diabetes mellitus	DM
diagnosis	Dx
dilation & curettage	D&C
discontinue	d/c
do not resuscitate	DNR
drop (s)	gtt (s)
dyspnea on exertion	DOE
electrocardiogram	ECG / EKG
emergency department	ED / ER
endotracheal tube	ETT
epinephrine	EPI
Equal to or greater than	≥
Equal to or less than	≤
esophageal detection device	EDD
esophageal obturator airway	EOA
estimated	Est.
estimated time of arrival	ETA
every	q̄
external jugular vein	EJV
fever of unknown origin	FUO
for example	e.g.
foreign body	FB
four times a day	qid
fracture	fx

French	Fr.
gallbladder	GB
gastrointestinal	GI
gauge	Ga
Glasgow Coma Scale	GCS
gram	g or gm
greater than	>
gunshot wound	GSW
hazardous materials	HazMat
head, ears, eyes, nose, throat	HEENT
Headache	H/a
heart block	HB
heart rate	HR
history	Hx
hypertension	HTN
Incident Command	IC
increasing	↑
inferior	inf.
insulin dependent diabetes	IDDM
intercostal space	ICS
intracranial pressure	ICP
intramuscular	IM
intranasal	IN
intraosseous	IO
intravenous	IV
intravenous push	IVP
joule	J
jugular venous distension	JVD
Kendrick Extrication Device	KED
kilogram	kg
labor & delivery	L&D
last normal menstrual period	LNMP
left	(L)
Left lower/upper extremity	LLE/LUE
Left lower/upper lobe	LLL/ LUL
left lower/upper quadrant	LLQ/LUQ
left bundle branch block	LBBB
less than	<
lights and siren	L&S
liters per minute	lpm
liter	L.
loss or level of consciousness	LOC
mass casualty event	MCE
mechanism of injury	MOI
medial	med.
medical control physician	MCP
metered dose inhaler	MDI
microgram	mcg.
milliequivalent	mEq
milligram	mg.
milliliter (same as cc.)	ml.
motor vehicle collision	MVC

multiple casualty incident	MCI
multiple sclerosis	MS
myocardial infarction	MI
nasal cannula	NC
nasopharyngeal airway	NPA
nausea & vomiting	N&V
newborn	NB
nitroglycerine	NTG
no known drug allergies	NKDA/NKA
non-rebreather mask	NRM
nonsteroidal anti-inflammatory	NSAID
normal saline	NS
normal saline lock	NSL
normal sinus rhythm	NSR
not applicable / available	n/a
nothing by mouth	NPO
O2 % of arterial blood	SpO2
obstetrics	OB
oropharyngeal airway	OPA
over the counter	OTC
overdose	OD
packs per day	p/d
parts per million	ppm
past medical history	PMH
patient	pt.
pelvic inflammatory disease	PID
penicillin	PCN
peptic ulcer disease	PUD
peripheral inserted central cath	PICC
pharyngo tracheal lumen airway	PtL
pregnancies, number of	Gravida
premature ventricular complex	PVC
prior to my arrival	PTA
pulmonary embolism	PE
pulse	P
pulse, motor, sensation	PMS
pulseless electrical activity	PEA
pupils (=) round reactive to light & accommodation	PERRLA
right bundle branch block	RBBB
right lower/upper extremity	RLE/RUE
right lower/upper lobe	RLL/RUL
right middle lobe	RML
rapid sequence induction	RSI
respiratory rate	RR
returned to service	RTS
rheumatic heart disease	RHD
right	R
right lower/upper quadrant	RLQ/ RUQ
secondary / second degree	2°
sedate to intubate	StI
sexually transmitted disease	STD
shortness of breath	SOB

signs/symptoms	S/S
sino-atrial	SA
sinus bradycardia	SB
sinus tachycardia	ST
standard operating procedure	SOP
standing orders	SO
ST Elevation MI	STEMI
subcutaneous	SQ
sublingual	SL
sudden infant death syndrome	SIDS
supraventricular tachycardia	SVT
symptoms	Sxs
systolic blood pressure	SBP
tachycardia	tach(y)
temperature	T
temporomandibular joint	TMJ
that is	i.e.
three times a day	tid
tibia	Tib
times	×
to keep open	TKO
tourniquet	TQ
tracheal deviation	TD
transport	Tx
transcutaneous pacing	TCP
transfer	x-fer
Transient ischemic attack	TIA

treatment/medication	Rx
tuberculosis	TB
twice a day	bid
unconscious	unc.
unequal / not equal	≠
Unified Command	UC
unknown	unk.
upper/lower	U/L
upper respiratory infection	URI
urinary tract infection	UTI
ventricular fibrillation	VF/ VFib
ventricular tachycardia	VT/ VTach
vital signs	VS
warm & dry	w/d
week	wk.
weight	wt.
white	W
with	$\overline{c}$
within normal limits	WNL
without	$\overline{s}$ or w/o
Wolff Parkinson-White	WPW
year	yr.
years old	y/o or yo

RIGHTS OF MEDICATION ADMINISTRATION

1. Right Medication
    a. Make sure that the medication is the correct medication indicated by the GMVEMS Standing Orders and check it against the medication label.
    b. Double-check the generic vs. non-generic names of medications. Many names are similar and have a potential for error. If you aren't sure, reference your SO Manual or Quick Reference Guide!
    c. Check the expiration date on the label.
2. Right Patient:
    a. Confirm patient ID and confirm absence of allergies or other contraindications for your patient.
    b. In multiple patient or mass casualty situations, confirm that the medication is being delivered to the correct patient.
3. Right Dose:
    a. Check the SO dose against the medication label for the **correct concentration**.
    b. Recheck dosage calculations and verify accuracy.
    c. Confirm that the correct dose has been drawn up.
    d. Use your references!
4. Right Route:
    a. Check the standing order and the medication label for the correct route.
    b. Confirm the route of administration for the medication; IM, PO or IN.
    c. Confirm that the dose is correct for the chosen route, since some dosages will vary depending on the route.
    d. Make sure the route is accessible.
5. Right Time:
    a. Give the medication over the proper time duration per the Standing Orders.
6. Right Documentation:
    a. Document medication, dose, time of administration and duration of administration, route and patient response.

RUN DOCUMENTATION REQUIREMENTS

Every crew transporting a patient is expected to provide a full run sheet to the hospital.
An abbreviated version of a run report, sometimes called a "quick sheet" may be left at the time of transport, but the hospital MUST receive a full, final copy of the run sheet within three hours (with rare exceptions, e.g., major incidents). When a quick sheet is used, it MUST include (at a minimum) all the following:

- Patient's full name
- Age
- Chief complaint
- History of the Present Illness/MOI
- PMH
- Medications
- Allergies
- Vital signs with times
- Prehospital assessment and interventions along with the timing of any medication or intervention and patient response to such interventions

ATROPINE
PACKAGED:

2 mg AtroPen auto-injector (in Chempack and Drug Cache)
1 mg AtroPen auto-injector (in Chempack and Drug Cache
0.5 mg AtroPen auto-injector (in Chempack and Drug Cache)

.

NOTE:
Atropine is also one component of the Mark 1 kits or as a DuoDote (in with the HazMat Drugs in GMVEMSC Drug Bags).

INDICATION:
Organophosphate or Nerve Agent poisoning (regardless of cardiac rate)

ADULT:
Organophosphate or Nerve Gas poisoning: Mark 1 Kit Item one, or Duodote until lungs are clear to auscultation. There is no max dose for Atropine for Organophosphate or Nerve Agent poisoning.

PEDI:
.Organophosphate or Nerve Gas poisoning: Atropine or (AtroPen) Auto-injector.
< 20 kgs: 0.5 mg (AtroPen) Auto-injector
20 kgs to 40 kgs: 1.0 mg (AtroPen) Auto-injector
> 40 kgs: 2.0 mg (AtroPen) Auto-injector
There is no max dose for Atropine for Organophosphate or Nerve Agent poisoning.

THERAPEUTIC ACTION:
Anticholinergic

CONTRAINDICATIONS:
None for severe organophosphate exposure.
Tachycardia
Hypersensitivity to Atropine
Obstructive disease of GI tract
Obstructive neuropathy
Unstable cardiovascular status in acute hemorrhage with myocardial ischemia
Narrow angle glaucoma
Thyrotoxicosis

PRECAUTIONS AND SIDE EFFECTS:
Tachycardia, paradoxical bradycardia when pushed too slowly or when used at doses less than 0.5 mg, palpitations, dysrhythmias, headache, dizziness, anticholinergic effects (dry mouth, nose, skin, photophobia, blurred vision, urinary retention, constipation), nausea, vomiting, flushed hot dry skin, allergic reactions
Atropine causes papillary dilation rendering the pupils nonreactive. Pupil response may not be useful in monitoring CNS status.

REQUIRES MCP:

ADULT: Organophosphate Nerve Agent Poisoning—Yes

PEDI: Organophosphate Nerve Agent Poisoning—Yes

DIAZEPAM
(Valium) CANA Pen

PACKAGED: 10 mg auto-injector

INDICATION: Seizures associated with Organophosphate or Nerve Agent MCI.

NOTE: Available in CHEMPACK and Drug Cache.

THERAPEUTIC ACTION:
Treats alcohol withdrawal and grand mal seizure activity, used to treat anxiety and stress

CONTRAINDICATIONS:

PRECAUTIONS AND SIDE EFFECTS:
Hypotension, reflex tachycardia (rare), respiratory depression, ataxia, psychomotor impairment, confusion, nausea
May cause local venous irritation

DOSE:
ADULT: 10 mg IM Auto-injector
PEDI: 10 mg IM Auto-injector

REQUIRES MCP:
ADULT: Yes
PEDI: Yes

DUODOTE

PACKAGED: Auto-injector 2 mg Atropine and 600 mg Pralidoxime Chloride (2-Pam)

NOTE: Available in CHEMPACK and Drug Cache

INDICATION:
Organophosphate or Nerve Agent Poisoning

ADULT:
Single auto-injector containing 2 mg Atropine and 600 mg 2-Pam
(See individual drug listing for specific information on drugs)

PEDI:
Single auto-injector containing 2 mg Atropine and 600 mg 2-Pam

THERAPEUTIC ACTION:
Anticholinergic as a result of WMD MCI; also reactivates cholinesterase

CONTRAINDICATIONS:

PRECAUTIONS AND SIDE EFFECTS:
Tachycardia, paradoxical bradycardia when pushed too slowly or when used at doses less than 0.5 mg, palpitations, dysrhythmias, headache, dizziness, anticholinergic effects (dry mouth, nose, skin, photophobia. blurred vision, urinary retention, constipation), nausea, vomiting, flushed, hot, dry skin, allergic reactions.
Atropine causes papillary dilation rendering the pupils nonreactive. Pupil response may not be useful in monitoring CNS status.
Use with caution in myasthenia gravis, renal impairment, pregnancy, lactation or children.

REQUIRES MCP:
ADULT: Yes
PEDI: Yes

EPINEPHRINE EPIPEN

PACKAGED: Auto-injector: Adult EpiPen 0.3 mg
Or EpiPen Jr. 0.15 mg

INDICATION:
Anaphylaxis or Allergic Reaction

ADULT:
Anaphylaxis:
If ≥ 30 kg, give both Adult EpiPen and EpiPen Jr
- ♦ May repeat in 5 minutes

PEDI:
Anaphylaxis:
- **P** If < 15 kg, **EpiPen Jr**
- **P** If ≥ 15 kg and < 30 kg, Adult EpiPen

THERAPEUTIC ACTION:
Directly stimulates alpha and beta adrenergic receptors in dose-related fashion
Causes bronchodilation, vasoconstriction, and increased cardiac output

CONTRAINDICATIONS:

PRECAUTIONS AND SIDE EFFECTS:
Headache, nausea, restlessness, weakness, dysrhythmias, including ventricular tachycardia and ventricular fib, hypertension, precipitation of angina pectoris, tachycardia
May increase myocardial oxygen demand
Syncope has occurred following epinephrine administration to asthmatic children

REQUIRES MCP:
ADULT: No, Repeat = yes
PEDI: No

NALOXONE
(Narcan)

PACKAGED: 2 mg in 2 ml vial, 1 mg/ml

NOTE: Naloxone administration should be to improve respirations in an unresponsive patient with a hypoventilation condition and not to awaken an unconscious patient. It should be given slowly. Narcan can precipitate narcotic withdrawal with all of its problems. If the patient has a pulse, Naloxone should be given before intubation. Once Naloxone is administered, it is encouraged that the patient be removed by EMS.

Most pediatric patients with respiratory depression do not have narcotic overdose. They are either septic or have respiratory failure.

INDICATIONS:
Respirations depressed or high index of suspicion of narcotic overdose.
Suspicion of drug abuse in cardiac arrest.

ADULT:
2 mg intranasally, IN using MAD. May repeat as many as needed.
Titrate to adequate respirations.

PEDI:

P Naloxone:
- ≤ 20 kg **0.1 mg/kg IN,** (max dose 2 mg).
- > 20 kg **2 mg IN.**
- Titrate to adequate respirations.

THERAPEUTIC ACTION:
A competitive narcotic antagonist

CONTRAINDICATIONS:
Hypersensitivity
Use with caution in narcotic-dependent patients who may experience withdrawal syndrome (including neonates of narcotic-dependent mothers).

PRECAUTIONS AND SIDE EFFECTS:
Tachycardia, hypertension, dysrhythmias, nausea and vomiting, diaphoresis, blurred vision, opiate withdrawal.
May not reverse hypotension.
Caution should be exercised when administering to narcotic addicts (may precipitate withdrawal with hypertension, tachycardia and combative behavior).
After administration of **Naloxone**, patient transport by EMS is encouraged.

REQUIRES MCP:
ADULT: No
PEDI: No

PRALIDOXIME (2-PAM)
(Mark I Auto-injector, Item 2)

PACKAGED: 600 mg Auto-injector

INDICATION:
To be used following Atropine in Organophosphate, or Nerve Gas Poisoning both for treatment of civilian patients at the scene, as well as for protection of public safety personnel who walk into scene & become unexpectedly contaminated.

ADULT:
600 mg IM Auto-injector

PEDI:
Children > 20 kg: 600 mg IM Auto-injector

THERAPEUTIC ACTION:
Reactivates cholinesterase after poisoning with anticholinesterase agents (Organophosphate or Nerve Gas)
Reverses muscle paralysis after organophosphate poisoning

CONTRAINDICATION:
Hypersensitivity

PRECAUTIONS AND SIDE EFFECTS:
Use with caution in myasthenia gravis, renal impairment, pregnancy, children.
Can spread to child through breast feeding

REQUIRES MCP:
ADULT: Yes
PEDI: Yes

GREATER MIAMI VALLEY EMS COUNCIL

2017 EMR SKILL SHEETS

Revised: 10/2016

EMRS: Use these skill sheets and protocol to study for Skills Testing.

SKILLS TESTERS: Record Pass/Fail on Individual's Test Summary Sheet. Use these and additional adult/pediatric mega code sheets as guidelines for grading. It is only necessary to make enough copies of this packet for testers (those who have gone through Train the Trainer sessions).

Adult Mega Code - Separate EMR Mega Code sheets used for testing.

Automated External Defibrillator ----------52

Oxygen Administration

Non-rebreather mask----------53
Nasal Cannula----------53
Bag Valve Mask ----------53

Medications

Intranasal Medication Administration----------51
Epipen----------54
Medication Administration---------- 55

Adult Protocol Skill Evaluation
Intranasal Medication Administration

NAME: _____ DATE:_____

Level: EMR ____EMT ____Advanced ____Paramedic_____

STEPS	1st Test	2nd Test	3rd Test
Assures that patient is being ventilated adequately, if necessary			
Asks patient for known allergies			
Clearly explains procedure to patient			
Selects, checks and assembles equipment			
Medication			
Appropriate syringe, needle and mucosal atomizer device (MAD®)			
Sharps container			
Alcohol swabs			
Sterile gauze			
Administers medication			
Selects correct medication by identifying			
Right patient			
Right medication			
Right dosage/concentration			
Right time			
Right route			
Also checks medication for:			
Clarity			
Expiration date			
Assembles syringe and needle while maintaining sterility			
Cleanses rubber stopper, draws appropriate amount of medication into syringe and dispels air while maintaining sterility			
Reaffirms medication			
Disposes of needle in proper container and attaches mucosal atomizer device			
Takes or verbalized appropriate PPE precautions			
Stops ventilation of patient, if necessary and removes mask			
Inserts mucosal atomizer device into nostril and briskly depresses the syringe plunger (1/2 medication up each nostril)			
Disposes/verbalizes proper disposal of syringe and MAD			
Resumes ventilation of patient, if necessary			
Verbalizes need to observe patient for desired effect and side effects			

ADULT PROTOCOL SKILL EVALUATION
SUBJECT: AUTOMATED EXTERNAL DEFIBRILLATORS

NAME_____ DATE_____

LEVEL: _____Paramedic _____Advanced _____EMT ____ EMR

STEPS	**1st Test**	**2nd Test**	**3rd Test**
A. Perform an initial assessment of the patient.			
B. Begin CPR with 100% oxygen while preparing AED.			
a. If witnessed arrest, defibrillate.			
b. If unwitnessed arrest, two minutes of CPR prior to defibrillation.			
c. CPR continuously until AED is attached to patient.			
C. Turn on the AED.			
D. Place the defibrillator pads onto the patient.			
E. Stop CPR. Allow AED to analyze rhythm.			
F. If shock is advised, clear all personnel from around the patient.			
G. Resume CPR if no response to the shocks.			
H. Repeat steps E, F and G in two minutes if needed.			

EQUIPMENT:
1. A.E.D. per organization type
2. Simulator

ADULT PROTOCOL SKILL EVALUATION
SUBJECT: OXYGEN ADMINISTRATION

NAME_____ DATE_____

LEVEL: _____EMR

NONREBREATHER MASK

STEPS	1st Test	2nd Test	3rd Test
A. List indications for oxygen delivery by nonrebreather mask.			
B. Assure regulator is on tank, open tank and check for leaks.			
C. Check tank pressure			
D. Attach nonrebreather mask to oxygen.			
E. Prefill reservoir			
F. Adjust liter flow to 12 - 15 LPM.			
G. Apply and adjust mask to patient's face.			

NASAL CANNULA

STEPS	1st Test	2nd Test	3rd Test
A. List indications for oxygen delivery by nasal cannula.			
B. Assure regulator is on tank, open tank and check for leaks.			
C. Check tank pressure			
D. Attach nasal cannula to oxygen.			
E. Adjust liter flow to 4 - 6 LPM.			
F. Apply and nasal cannula to patient.			

BAG-VALVE-MASK

STEPS	1st Test	2nd Test	3rd Test
A. List indications for oxygen delivery by bag-valve-mask			
B. Assure regulator is on tank, open tank and check for leaks.			
C. Check tank pressure			
D. Assemble bag-valve-mask with appropriately sized mask.			
F. Connect reservoir and set oxygen at 12 - 15 LPM.			
G. Create a proper mask-to-face seal while maintaining open airway position.			
H. Ventilate @ appropriate rate and check for chest rise.			

ADULT PROTOCOL SKILL EVALUATION
SUBJECTS: ASSISTING WITH EPIPEN ADMINISTRATION

NAME_____ DATE_____

LEVEL: _____EMT _____ EMR

STEPS	**1st Test**	**2nd Test**	**3rd Test**
A. Contact MCP if necessary			
B. Evaluate the patient, with attention to S&S of anaphylaxis.			
C. Obtain the patient's EpiPen auto-injector.			
D. Assure that it is prescribed to the patient.			
E. Check the medication for expiration date and for cloudiness or discoloration.			
F. Remove the safety cap.			
G. Select the injection site: anterolateral thigh.			
H. Push the injector firmly against the site.			
I. Properly discard the injector.			
J. Monitor the patient and record the results of the treatment.			
K. Record vital signs			

ADULT PROTOCOL SKILL EVALUATION

SUBJECT: MEDICATION ADMINISTRATION

NAME_____ DATE_____

LEVEL: _____EMR

STEPS – Focus is achieving the "Rights" which is expanded to six.	**1st Test**	**2nd Test**	**3rd Test**
NARCAN			
A. **RIGHT PATIENT -** List the indications for the medication.			
B. **RIGHT MEDICATION -** Check the medication for; medication name, expiration date and for cloudiness or discoloration.			
C. **RIGHT DOSE –** Discuss cardiac arrest vs. non-arrest			
D. **RIGHT ROUTE -** List the routes of administration.			
E. **RIGHT TIME** – List duration of infusion or frequency of repeat dose.			
F. **RIGHT DOCUMENTATION**			
EPIPEN ADMINISTRATION			
A. **RIGHT PATIENT -** List the indications for the medication.			
B. **RIGHT MEDICATION -** Check the medication for; medication name, expiration date and for cloudiness or discoloration.			
C. **RIGHT DOSE –** Indicate when both EpiPens are needed. Discuss cardiac arrest vs. non-arrest			
D. **RIGHT ROUTE** - List the routes of administration.			
E. **RIGHT TIME** – List duration of infusion or frequency of repeat dose.			
F. **RIGHT DOCUMENTATION**			
DUODOTES			
A. **RIGHT PATIENT -** List the indications for the medication.			
B. **RIGHT MEDICATION -** Check the medication for; medication name, expiration date and for cloudiness or discoloration.			
C. **RIGHT DOSE –** Discuss cardiac arrest vs. non-arrest			
D. **RIGHT ROUTE** - List the routes of administration.			
E. **RIGHT TIME** – List duration of infusion or frequency of repeat dose.			
F. **RIGHT DOCUMENTATION**			

DRUG BAG EXCHANGE PROGRAM

PURPOSE

To administer and monitor a drug bag exchange program between participating Fire, EMS and Private Ambulance departments and hospitals.

DRUG BAG EXCHANGE COMMITTEE

Co-Chairpersons:	1 Hospital EMS coordinator
	1 Hospital pharmacy representative from each participating county
Members:	EMS Coordinator from each participating hospital
	Pharmacy representative from each participating hospital
	Any interested GMVEMS Council member

MEETINGS

Scheduled:	Two meetings per year: March and September
Unscheduled:	As needed to discuss problem areas

OPERATING GUIDELINES

General

- There are two types of drug bags: **ALS/BLS** and **BLS** (fanny pack style).
- All drug bags, both ALS/BLS and BLS, are the property of the Greater Miami Valley EMS Council.
- There is an initiation fee for each new bag that EMS agencies add to the program.
- There is an annual maintenance fee for each ALS/BLS bag and BLS bag.
- There is an approved policy for replacement of lost or stolen drug bags (see Addendum A).
- To maintain the integrity of the drug bag contents, pharmacy departments' seal each compartment of stocked drug bags with a blue plastic device. The seal should only be broken for administration of prehospital emergency medical treatment by approved EMS personnel. After prehospital emergency medical treatment use, the drug bag should be cleaned and re-sealed with the red plastic device contained inside each drug bag compartment.
- The following actions may be taken for any department found to be in non-compliance with the Drug Bag Exchange Program Operating Guideline regarding opening and resealing the drug bag:
  - Notification of the Fire Chief, EMS Administrator, or Private Ambulance Administrator.
  - The governing agency, e.g., city council, trustees, EMFTS for private ambulance service, will be notified that action is being initiated for the Fire/EMS/Private ambulance service.
  - Removal of all drug bags from all locations of said Fire/EMS/Private ambulance service.
  - Written notification to the following that the said service is in violation of the operating policy of the Drug Bag Exchange Program:
    - Medical Director
    - Regional Physician Advisory Board
    - OH State Pharmacy Board
    - OH Division of EMS
    - All hospitals participating in the drug bag exchange program
- GMVEMS Council maintains an information database for all EMS personnel authorized to participate in the Drug Bag Exchange Program.
- Rosters with certification expiration dates for EMS providers are available via an online database for review and updates.

PARTICIPATION REQUIREMENTS

- Active membership in the GMVEMS Council.
- Each agency in GMVEMSC must understand that Council typically communicates with departments and agencies via email, and that some of those messages concern changes to Standing Orders, pharmaceuticals in our Drug Bags, or other critical issues. Council maintains two lists of emails:
  - The GMVEMSC Listserve
  - A distribution list of Agency Contacts

- As such, to participate in the Drug Bag Program, each agency must provide a minimum of one functioning email contact for each of those lists (may be the same person or different). Council desires to communicate as freely and effectively as possible, and agencies may provide as many as they like for each list, but must have at least one person who can reliably receive messages. Since in rare cases, these messages may be urgent, we encourage use of the "three-deep" rule: provide Council with three (or more) emails for each list.
- **ADDITIONAL REQUIREMENTS FOR DRUG BAG PROGRAM**
  - The protocol testing compliance letter (Addendum I) must be signed by the Chief within two weeks after completion of the written testing cycle, then faxed to Council.
  - The copy of your license needs to go to Council by April 30 of the calendar year. This is required, as the Pharmacy at each hospital needs your license on file in order to exchange drug bags with your department.
  - Complete drug bag updates when scheduled. This is essential. The Pharmacy Board has made it very clear that updates must be completed on time.
  - Provide a signed letter (Addendum C) from each department or agency acknowledging that they must comply with the requirements. This letter will be kept on file with Council.
- ***No department which participates in the Drug Bag Exchange Program shall possess a DEA License.***
- Area hospital participation according to Council guidelines. (See Addendum B).
- Document medical advisor approval for the use of the GMVEMS Council Operating Protocols with a signed, notarized letter, which is attached to the drug license renewal application form with a copy submitted to Council. Notarized letter is not required for renewal unless medications are added or there is a change in Medical Director from previous year.
- Signed agreement to abide by the GMVEMS Council Operating Guidelines for the Drug Bag Exchange Program (see Addendum C).
- Agreement to complete the GMVEMSC annual skills and annual written test between 1 January and 31 May unless otherwise scheduled by Council (see Non-Compliance Procedures).
- **Maintain all drugs at all times in a clean, temperature-controlled environment per Rule 4729-33-03(E) of the OH State Pharmacy Board Administrative Code. The rules can be seen at: http://pharmacy.ohio.gov/rules/4729-33-03.pdf**
- The ideal temperature span is 59-86 degrees F.
- In order to utilize an ALS/BLS or BLS drug bag in the pre-hospital emergency setting, the following equipment shall be available 1 January 2016 unless otherwise noted.
  - BLS Provider:
    - Oxygen
    - Pulse Oximetry
    - Extraglottic Airways
    - CPAP administration and management
    - Oral Glucose
    - Glucometry
    - Ice Packs
    - Suction (non-powered is acceptable)
    - AED (if approved by Medical Advisor)
  - ALS Provider:
    - Oxygen
    - $EtCO_2$ monitoring and detection for intubated patients (Detection day 1, Waveform by 2021)
    - 12-Lead acquisition and interpretation by 2021
    - 12-Lead transmission by 2021
    - MAD
    - IO and device
    - BAAM
    - Digital intubation
    - IV pressure infuser
    - Suction (non-powered is acceptable)
    - Monitor/defibrillator or AED & intubation equipment

LEVELS OF PARTICIPATION

- **Paramedic Level**
  - Each drug bag consists of a navy, standard issue drug bag. A Paramedic can access any of the compartments of bag to obtain medications per his/her protocol.
  - Each standard issue bag is labeled with a metal tag from 850 – up.
  - Upon completion of a transport, the entire bag is exchanged at the receiving hospital *with the appropriate paperwork following the steps above.*

- **AEMT Level**
  - A side compartment labeled "intermediate"
  - The AEMT can access compartments to obtain medications per their protocol. They cannot access the Center Inside Compartment or the Center Controlled Medication Compartment.
  - Upon completion of a transport, the entire bag is exchanged at the receiving hospital *with the appropriate paperwork following the steps above.*
- **Basic Life Support**
  - **The RED BLS compartment on an ALS/BLS bag** or BLS fanny-pack style bag will carry the following medications ONLY: Nitrostat, EpiPen, EpiPen Jr. and baby Aspirin. The EMT can only access this compartment and the Naloxone compartment to treat his/her patient per protocol.
  - Each bag is labeled with a numeric code.
  - Upon completion of a transport, the bag is exchanged at the receiving hospital *with the appropriate paperwork following the steps above.*

EXCHANGE PROCESS

- Each department is assigned to a "home" hospital. The assigned hospital is the central resource for initial fulfillment of medications for the drug bags and wholesale exchanges, replacement, or additions as required by revisions to the GMVEMS Council Standing Orders Protocols. Under normal operating parameters, drug bags can be exchanged at any participating hospital or within the same department.
  - ALS/BLS bags may be exchanged one-for-one with another ALS/BLS bag. BLS bags may be exchanged one-for-one with another BLS bag.
- EMS providers are required to inventory each opened compartment, discard any used sharps and clean any contaminants from bag used, and apply a red seal before exchanging for a replacement bag. The red seal will be looped through the proximal portion of the zipper tab (not the outermost portion of the zipper tab).
- Once you have verified the contents, seal the compartment with the RED tag, **placing the blue seal from the opened compartment back in that compartment**, unless there is a discrepancy. If any old blue seals (from previous runs) are found in the compartment, remove them, and send them to the EMS Coordinator for the receiving hospital. .
- Any discrepancies (missing meds, expired meds, wrong meds or dose, altered or tampered meds, drug bag number discrepancy, etc.) that are identified shall be reported to the GMVEMSC using the Drug Bag Discrepancy Report. (See discrepancy procedure)
- The primary care provider for the patient is responsible for the inventory of the drug bag prior to sealing it. If two departments have accessed a drug bag, they should jointly seal the drug bag.
- Each hospital designates a specific location for the exchange of drug bags. EMS personnel are **required** to complete the Sign In/Out log when exchanging a drug bag. Once sealed, any provider can exchange the drug bag.
- EMS Providers are responsible for ensuring that all blue seals on the new bag are intact when logging out an exchanged bag.

DOCUMENTATION OF DRUG USAGE

- Fentanyl, Ketamine, Morphine, Versed and Valium are controlled drugs. They must be tracked from the time they are dispensed into the drug bag through the time of administration.
- To insure the medications are properly accounted for, all AEMTs and Paramedics will document:
  - The drug name
  - The amount used
  - The amount wasted
  - The signature of the two witnesses if wastage (the person wasting the medication can sign as a witness).
- The GMVEMSC run sheets have a dedicated area for this documentation and required signature lines. Those using other types of run sheets should document the above information and the required signatures. **Some hospitals also require the use of the GMVEMSC approved Controlled Drug Usage Form in addition to documentation on the run sheet. This GMVEMSC approved form must be filled out for any controlled drug use, even if there is no wastage**. This information shall be on both the original EMS department form and the hospital copy for reference if needed.

WASTED DRUG PROCEDURE

- Fentanyl, Ketamine, Morphine, Versed and Valium are controlled drugs. If a medication is only partially administered, the paramedic or AEMT must account for the all of the unused portion.
- To insure the medications are properly accounted for, all paramedics and AEMTs will document:
  - The drug name
  - The amount used
  - The amount wasted
  - The signature of a second witness if there is wastage.
- One witness will be the paramedic or AEMT wasting the medication and the second witness signature will be the nurse/physician/pharmacist or EMT who witnessed the disposal of the medication. Both witnesses will sign the run sheet.
- It is preferred to have a nurse or physician witness drug wastage. A pharmacist can also be a witness if a nurse or physician is not available**.** Using another EMS provider to witness wastage should be avoided unless the EMS provider cannot obtain a nurse, physician, or pharmacist as a witness. EMS personnel witnessing drug wastage can be of higher, equal or lower certification level.

GENERAL NON-COMPLIANCE PROCEDURES

- Each department and department medical director(s) will be notified if the annual written test and skills check-off has not been completed within the prescribed time period.
- The Ohio State Board of Pharmacy will be notified that a department or individual members of a department have not completed the annual written test and skills check-off within the prescribed time period.
- Hospital EMS coordinators and pharmacy departments will receive a list of departments or individuals within a department that are not in compliance with the operating guidelines. At the end of the testing season, if a department does not have 100% of their personnel completing both skill and written tests (or explanations for individuals not in compliance) noted in the Standing Orders database, then appropriate action, up to and including the removal of department from the Drug Bag program, may be taken by the chair of the drug bag committee.
- If copy of drug license(s) is not received by due date, GMVEMS Council notifies EMS department medical director. GMVEMS Council reserves the right to initiate the non-compliance action process for any Fire/EMS/Private Ambulance service that does not provide documentation for drug license(s) renewal.

DRUG BAG DISCREPANCIES

- **EMS providers are required to inventory each opened pouch prior to applying the red seal.**
- All discrepancies (missing meds, expired meds, wrong med or dose, altered or tampered meds, drug bag number discrepancy, etc.) that are identified shall be reported to GMVEMSC using the Drug Bag Discrepancy Report (Addendum E).
- **If at any time, an EMS provider encounters a discrepancy he/she will:**
  - Notify his/her EMS Officer of the discrepancy.
  - If the discrepancy was discovered after opening the bag, retain the blue seal and the hospital sticker that was attached to the drug bag in question.
  - If the EMS provider is at the hospital, he/she will log the bag in using the normal procedure at that hospital while retaining the blue seal.
  - He/she will advise the pharmacist or EMS Coordinator of the discrepancy and that he/she will be initiating the Discrepancy form as described below (pharmacist may request a copy of the Discrepancy form).
  - The EMS Officer may contact the EMS Coordinator if assistance is needed.

Discrepancies Involving Controlled Drugs and/or Potential Tampering:

- When an issue arises concerning any of the following, a collaborative effort between the EMS organization/provider and the Hospital EMS Coordinator/Pharmacist shall be made in an attempt to resolve the issue:
  - A controlled drug (Fentanyl, Ketamine, Valium, Versed, or Morphine)
  - A stolen, missing or lost bag
  - Any medication that appears to have been altered or tampered with.
- If the issue cannot be resolved, the following steps shall be taken:
  - If the discrepancy was discovered by the EMS organization/provider, the person designated by the organization/provider shall comply with the requirements of OAC 4729-9-15 and GMVEMSC requirements as indicated below.
  - If the discrepancy was discovered by the hospital, the person designated by the hospital shall comply with the requirements of OAC 4729-9-15 and GMVEMSC requirements as indicated below.
- Required reporting for unresolved issues involving Controlled Drug or potential/suspected tampering or lost or stolen drug bags pursuant Federal and State Laws and GMVEMSC Protocol include:
  - Contact the Ohio State Board of Pharmacy by telephone at (614) 466-4143. Advise them you want to report a dangerous drug discrepancy. They will connect you with the appropriate person. (OAC 4729-9-15)
  - File a report with the appropriate law enforcement authorities (ORC 2921.22).
  - Notify the Drug Enforcement Agency (DEA) within 30 days of discovery using DEA Form 106 available electronically at: https://www.deadiversion.usdoj.gov/webforms/app106Login.jsp. A 30-day extension may be requested in writing from the DEA. (CFR 1301.76(b)).
  - Submit a completed GMVEMSC Drug Bag Discrepancy Report located at Addendum #E, with appropriate supporting documentation, to the GMVMESMC.

Discrepancies Not involving Controlled Drugs and/or Potential Tampering

- Examples may include:
  - Non-controlled drugs that were not in the bag
  - Wrong number of medications or doses
  - Wrong drug concentration
  - Expired medications found
  - No expiration date on tag
  - Medications improperly labeled
  - Empty vials/packaged left in bag
  - Unsealed medications

- Wrong medication administered
- Unsealed pouch discovered
- Bag logged out with red seal (used bag)

- If discovered by EMS, the EMS Officer will initiate the Discrepancy form. He/she shall provide a copy of the form and the Blue Seal to the Hospital EMS Coordinator and shall fax a copy of the report to the GMVEMSC (937-228-1035).
- If the Hospital discovers the discrepancy, the EMS Coordinator will initiate the Discrepancy Form and submit to GMVEMSC. If the EMS Coordinator is able to determine which EMS agency/hospital is responsible for the discrepancy, the agency/hospital will be notified and will receive a copy of the Discrepancy Form and the Blue Seal if applicable.

The GMVEMSC will:

- Maintain a record of all discrepancies that occur.
- Follow up with the agencies involved as needed.
- Advise the Drug Bag Chairperson of any and all discrepancies and action taken.

The Drug Bag Committee Chairperson will:

- Report at the bi-annual Drug Bag Committee meetings for discussion and resolutions to all discrepancies encountered.
- Assist the Council and or affected departments with any issues or questions that may result.

DRUG BAG BLUE SEALS

- **Blue seals**:
  - Blue seals are used by the pharmacy that inventories and restocks the ALS/BLS drug bags. The blue seals will have a hospital sticker attached to the seal that identifies the hospital and pharmacist that inventoried the bag and the expiration date of the next drug to expire. The inner compartment of the ALS bag and Intermediate will be sealed with a blue seal and will have the expiration date noted. The blue seal will be looped through the proximal portion of the zipper tab (not the outermost portion of the zipper tab). EMS should verify the blue seal is intact and has an expiration date before accepting the bag. When EMS opens a drug bag compartment, keep the blue seal in your possession until you have verified the contents are accounted for. Once you have verified the contents, seal compartment with RED tag, placing the blue seal in the compartment, unless there is a discrepancy.

- **Red Seals:**
  - Red seals identify ALS/BLS bags as being used. EMS providers are required to inventory each opened pouch, discard any used sharps and clean any contaminants from bag used and then take red seal from the inside compartment (supplied by pharmacy when restocking the ALS/BLS bag) and seal the used compartment. The red seal will be looped through the proximal portion of the zipper tab (not the outermost portion of the zipper tab).

Hospital Pharmacies should use the same style colored seals to maintain continuity of the system. Hospital pharmacists can purchase these seals through the GMVEMSC office.

ADDENDUM A

Lost or Stolen Drug Bag Policy

RE:	Lost or Stolen Drug Bags
APPROVED:	June 1994
PURPOSE:	To provide a uniform mechanism for the investigation and reporting of lost or stolen drug bags.

EMS DEPARTMENT SHALL:

- Develop and implement an internal investigation mechanism for lost or stolen drug bags. The internal investigation mechanism should include:
  - Determine if drug bag was left at the scene.
  - Determine if drug bag was not exchanged on last run.
  - Determine if drug bag is in the wrong vehicle.
  - Interview all personnel who had access to the drug bag.

- The GMVEMSC will seek the assistance of the Drug Bag Co-Chair to check with all hospitals to determine if the bag might be in inventory or be alerted if it shows up at one of the hospitals.

- EMS Officer will initiate the Drug Bag Discrepancy Form and follow instructions for reporting lost or stolen drug bags. Completed paperwork and reports will be submitted to GMVEMSC.

- The GMVEMSC will contact the hospital EMS Coordinator with whom the EMS Department is assigned to work out a drug bag replacement. The EMS Coordinator will contact *GMVEMSC for a drug bag replacement after all paperwork is submitted and GMVEMSC will assess a fee for replacement bag to be paid for by the EMS Department receiving the replacement bag.*

ADDENDUM B

HOSPITAL PARTICIPATION POLICY

APPROVED: 29 November 2001

GENERAL PURPOSE:
To ensure uniformity of hospital pharmacy participation in the DBEP.

The Hospital Shall:

- Purchase (at cost), fill, and maintain a supply of bags sufficient to meeting the needs of an average day, plus a few extra to meet peak demands for bag replacement.

- Accept responsibility for filling new bags for departments or vehicles as assigned by Council, at hospital expense.

- Assign one licensed pharmacist and an EMS coordinator to attend and participate in the Standing Orders and Drug Bag Exchange Program Committees.

- Agree to pay annual dues and any fees assessed by Council that are approved by the DBEP Committee and the GMVEMSC Council that pertain to the DBEP.

GMVEMSC SHALL:

- Maintain a current State Drug Licenses for all participants in the DBEP.

- Furnish hospital pharmacy with a current listing of all departmental personnel authorized to access the GMVEMSC drug bags and copy of the protocol.

- Assign departments to hospitals in both a geographic and otherwise equitable fashion.

ADDENDUM C

AGREEMENT LETTER

Please type or print legibly

*DEPARTMENT/SERVICE:*_____

*CONTACT PERSON:*_____

TELEPHONE: _____

FAX: _____

This department/service agrees to abide by the GMVEMS Council Drug Bag Exchange Program and Standing Orders operating guidelines.

*SIGNATURE:*_____

Fire Chief, EMS Administrator, or Private Ambulance Administrator.

*DATE:*_____

Return to:

GMVEMSC

241 Taylor, Suite 130

Dayton OH 45402

Phone: 937-228-1288

Fax: 937-228-1035

ADDENDUM D

New Member Policy requiring Drug (ALS/BLS) bag for licensure of their ALS/BLS unit

Those Agencies who have applied for membership and require a GMVEMSC drug bag to license their units may request a GMVEMSC drug Bag to be available 24 hours prior to the Ohio Medical Transportation Board (OMTB) inspection date providing they have done the following:

1. Have applied for a GMVEMSC membership
2. They have provided a copy of their State Pharmacy License
3. Have been given a provisional membership by the GMVEMSC Executive Committee if the inspection is before regularly scheduled Council meeting.
4. Personnel must be checked off on Standing Orders and data entered on GMVEMSC data base.
5. Medical Director must submit a notarized letter to the State Pharmacy Board with License application stating they approve their department to use the GMVEMSC protocols.
    i. Medical Directors have the right to limit their personnel from using certain medications or procedures within the scope of the GMVEMSC protocols.
    ii. Medical Directors may elect to change or add medications or procedures to the protocol. The Medical Director must include those protocols in addendum to the GMVEMSC, be responsible for the training and documentation of training in of their protocol as well as purchasing and maintaining those drugs that are not included in the standard inventory of the GMVEMSC ALS or BLS.

The agency has 72 hours to show proof of a temporary permit from the date of inspection to the GMVEMS Council office. If they cannot demonstrate an OMTB permit in that time the Drug bag must be returned to the Hospital to which the agency is assigned or the hospital that provided the drug bag.

ADDENDUM E
GMVEMSC Drug Bag Discrepancy Report

If at any time an EMS provider encounters a discrepancy he/she will notify their EMS Officer of the discrepancy. If the discrepancy was discovered after opening the bag, retain the blue seal and the hospital sticker that was attached to the drug bag in question. If the EMS provider is at the hospital, they will log the bag in using the normal procedure at that hospital. They will advise the pharmacist or EMS Coordinator of the discrepancy and that they will be initiating the Discrepancy form as described below (pharmacist may request a copy of the Discrepancy form).

Date of report:_____ Bag Number:_____ Date Discrepancy discovered:_____
Discovered by:_____ Hospital/EMS Dept making discovery:_____

Have blue Hospital seal? YES/NO If yes - Attach seal to report
Tracking:
Date bag was logged out:_____ from (hospital)_____ To (EMS agency)_____ Date Bag turned in: _____ to (hospital)_____
Description of the discrepancy: (Attach addendum if additional space needed)

Describe efforts to resolve the discrepancy: (Attach addendum if additional space needed)

Was the discrepancy satisfactorily resolved? _____ If not, what steps are to be taken:_____

Who will be responsible for any required reporting:_____
Reporting requirements:
Was a police report filed? _____ Date: _____ By whom? _____
Was a DEA report filed? _____ Date: _____ By whom? _____

Required documents submitted to GMVEMSC By:_____ Date:_____

For Drug Bag committee use:

Wrong Med stocked		Bag logged out with red seal	
Expired meds found		Empty vials/packages found	
Wrong dose packaged		Open pouch found	
Missing Meds		Unsealed bottles found	
Wrong number packaged		Med found in wrong compartment	
No exp date on tag		Wrong med administered	
Atrovent/Albuterol not labeled		Lost or stolen bag	
Damaged medications		Other:	
Other:			

GMVEMSC – White ***Pharmacy - Yellow*** ***EMS Department - Blue***

ADDENDUM F

OAC 4729-9-15

Report of theft or loss of dangerous drugs, controlled substances, and drug documents.

(A) Each prescriber, terminal distributor of dangerous drugs, or wholesale distributor of dangerous drugs shall notify the following upon discovery of the theft or significant loss of any dangerous drug or controlled substance, including drugs in transit that were either shipped from or to the prescriber, terminal distributor of dangerous drugs, or wholesale distributor of dangerous drugs:

(1) The state board of pharmacy, by telephone immediately upon discovery of the theft or significant loss;

(2) If a controlled substance, the drug enforcement administration (DEA) pursuant to section 1301.76(b), Code of Federal Regulations;

(3) Law enforcement authorities pursuant to section 2921.22 of the Revised Code.

(B) Controlled substance thefts must also be reported by using the Federal DEA Report form whether or not the controlled substances are subsequently recovered and/or the responsible parties are identified and action taken against them. A copy of the federal form regarding such theft or loss shall be filed with the State Board of Pharmacy within thirty days following the discovery of such theft or loss.

(1) An exemption may be obtained upon sufficient cause if the federal form cannot be filed within thirty days.

(2) A request for a waiver of the thirty-day limit must be requested in writing.

(C) Each prescriber, terminal distributor of dangerous drugs, or wholesale distributor of dangerous drugs immediately upon discovery of any theft or loss of:

(1) Uncompleted prescription blank(s) used for writing a prescription, written prescription order(s) not yet dispensed, and original prescription order(s) that have been dispensed, shall notify the state board of pharmacy and law enforcement authorities.

(2) Official written order form(s) as defined in division (Q) of section 3719.01 of the Revised Code shall notify the state board of pharmacy and law enforcement authorities, and the drug enforcement administration (DEA) pursuant to section 1305.12(b), Code of Federal Regulations.

ADDENDUM G
OAC 4729-33-03 Security and storage of dangerous drugs

(A) Overall supervision and control of dangerous drugs is the responsibility of the responsible person. The responsible person may delegate the day-to-day tasks to the emergency medical service (EMS) organization personnel who hold appropriate certification to access the dangerous drugs for which they are responsible.

(B) All dangerous drugs must be secured in a tamper-evident setting with access limited to EMS personnel based on their certification status except for sealed, tamper-evident solutions labeled for irrigation use. All registrants shall provide effective and approved controls and procedures to deter and detect theft and diversion of dangerous drugs.

(C) Only paramedics, advanced emergency medical technician, registered nurses, physicians, and pharmacists who are associated with that EMS organization may have access to any controlled substances maintained by the EMS organization. Other persons employed by the EMS organization may have access to controlled substances only under the direct and immediate supervision of a paramedic, an advanced emergency medical technician as defined in rules 4765-16-01 and 4765-16-02 of the Administrative Code, a registered nurse, or a physician in emergency situations.

(D) Administration of dangerous drugs by EMS personnel is limited to the scope of practice, as determined by the State Board of Emergency Medical Services, for the individual's certification level and the protocols as established by the medical director or when the individual is acting within their certification level pursuant to direct prescriber's orders received over an active communication link.

(E) All dangerous drugs will be maintained in a clean and temperature-controlled environment.

(F) Any dangerous drug that reaches its expiration date is considered adulterated and must be separated from the active stock to prevent possible administration to patients.

(G) Any non-controlled dangerous drug that is outdated may be returned to the supplier where the drug was obtained or may be disposed of in the proper manner.

(I) Destruction of outdated controlled substances may only be done by a State Board of Pharmacy agent or by prior written permission from the State Board of Pharmacy office.

(J) Destruction of partially used controlled substances can be accomplished, with the appropriate documentation, by two licensed health care personnel, one of which must have at least an advanced emergency medical technician, as defined in rules 4765-16-01 and 4765-16-02 of the Administrative Code, level of training.

(K) Any loss or theft of dangerous drugs must be reported upon discovery, by telephone, to the State Board of Pharmacy, local law enforcement and, if controlled substances are involved, to the Drug Enforcement Administration. A report must be filed with the State Board of Pharmacy of any loss or theft of the vehicle or storage cabinets containing dangerous drugs used by the EMS organization.

(L) Any dangerous drug showing evidence of damage or tampering shall be removed from stock and replaced immediately.

ADDENDUM H

Ambulance Restocking Policy

EMS Supply Exchange Program
September 23, 2014

History

The member hospitals of GDAHA have supported Emergency Medical Services agencies in the region for decades. In 1998, GDAHA received permission (Advisory Opinion No. 98.7) from the Department of Health & Human Services to continue to exchange drugs (GMVEMSC Drug Bag Program) and supplies with EMS agencies and avoid violating the anti-kickback (safe harbor) statute of the Social Security Act. The hospitals named in the advisory are in the eight (8) county West Central Region: Champaign, Clark, Darke, Greene, Miami, Montgomery, Preble and Shelby.

In December 2001, the Centers for Medicare and Medicaid Services issued an Ambulance Final Rule on Ambulance Restocking Safe Harbor. Elements of the Safe Harbor include: 1) Billing and Claim Submission; 2) Documentation; 3) Not Tied to Referrals; and 4) Compliance with other laws.

Current Situation

EMS agencies and personnel need to understand the benefits of the EMS Supply exchange program, as offered by GDAHA members participating in this program. EMS agencies and personnel must also realize that they must adhere to the agreement, particularly the areas highlighted below:

1. **Written records describing each of the medical supplies and/or medications utilized by the patient during the transport.** For all transports to Member Hospitals, the EMS agencies will provide the receiving Hospital Member with copies of such written records **upon arrival at the Hospital**.
2. Participating hospital members will restock EMS agency ambulances, at no charge to EMS agency, with the medical supplies and/or medications which were **utilized by the patient during the transport to the receiving Hospital.**

Hospitals will not restock items used on patients delivered to another hospital. It is the responsibility of the EMS agencies to restock items used on patients delivered to a hospital that is not a participant in the Agreement. **Participating hospitals will restock drug bags.**

Hospitals are not required to participate in this restocking program. This is a benefit to EMS Agencies in the region. Restocking an ambulance at a participating hospital for items used on a patient delivered to a hospital not participating in the agreement, will jeopardize this program.

Hospitals will not provide medical supplies to a new ambulance, or an old ambulance being returned to service. These ambulances must be stocked for the first time by the EMS agency.

ADDENDUM I

Protocol Testing Compliance

I, _____(Chief's Name Printed), do hereby certify that all

members of _____(Agency/ Department Name)

have completed the _____ (Year) GMVEMSC Protocol Testing as of _____ (Date

of Completion) with the exception of the following personnel:

(List anyone who has not completed testing)

_____

Chief's Signature

GREATER DAYTON AREA HOSPITAL ASSOCIATION
GREATER MIAMI VALLEY EMERGENCY MEDICAL SERVICES COUNCIL
GREATER MONTGOMERY COUNTY FIRE CHIEFS' ASSOCIATION
POLICY STATEMENT FOR
TEMPORARY REROUTING OF EMERGENCY PATIENTS

To avoid misunderstanding, all parties are cautioned to use the word **"rerouting," never "closed."**

Patients are never rerouted for patient's economic considerations.

The following patients are NOT rerouted:

RESPIRATORY AND/OR CARDIAC ARREST
CARDIAC & STROKE ALERT CRITERIA PATIENTS
MAJOR TRAUMA
MATERNITY
SERIOUS BURNS
HIGH RISK NEONATAL
DIALYSIS PATIENT
AIR MEDICAL TRANSPORT
HYPERBARIC
RECENTLY DISCHARGED PATIENTS (48 hours)

When conditions exist that may hinder the timely treatment of additional emergency cases, the Designated Hospital Official will declare the "Rerouting of Emergency Patients to be in Effect." The hospital will update the "GDAHA SurgeNet Web Page." The Hospital will notify their appropriate dispatch center, identify the hospital, name and title of caller, as needed. The hospital will then notify (by prior agreement, this can be via the SurgeNet Web Page) at least the following organizations:

1. The emergency department of each metropolitan hospital:
   a. The Dayton Children's Hospital
   b. Good Samaritan Hospital
   c. Grandview Medical Center
   d. Kettering Medical Center
   e. Miami Valley Hospital
   f. Miami Valley Hospital South
   g. Southview Medical Center
   h. Sycamore Medical Center
2. The appropriate emergency medical services – refer to individual hospital call list
3. The emergency department of non-metropolitan hospitals:
   a. Wayne Hospital, Greenville
   b. Atrium Medical Center, Middletown
   c. Wilson Memorial Hospital, Sidney
   d. Springfield Regional Medical Center
   e. Mercy Memorial Hospital, Urbana
   f. Upper Valley Medical Center, Troy
   g. Greene Memorial Hospital, Xenia
   h. Department of Veterans Affairs - Medical Center
   i. 88th Medical Center, WPAFB

Communicate the following information:

Rerouting of emergency patients is requested by name _____ hospital due to overcrowding. One of the following categories of rerouting may be requested. Hospitals MUST specify what category is being rerouted using the following options:

Reroute all Emergency Patients
Reroute all but major trauma (Trauma Centers Only)
Reroute Intensive and/or Coronary Care Patients Only.

After two (2) hours hospitals will be notified by page and/or email to review their reroute status.

It will be the responsibility of the **rerouting hospital to cancel their rerouting status and:**

1. Update the GDAHA SurgeNet Web Page
2. Use the same notification protocols used to initiate the rerouting procedure as appropriate

LOCKDOWN: the hospital has activated its disaster plan because of an internal emergency, bomb threat, or other situation rendering it unable to accept patients.

INFORMATIONAL CATEGORIES:

On occasion, hospitals will not be able to handle a certain category of patients. For example:

- CAT Scan is not available; stroke or head trauma patients should be diverted;
- Haz-mat patients should be diverted;
- A physician specialty is not available;

The hospital that is diverting this certain category of patients will not be considered rerouting in these circumstances. This will be shown on the web page as SPECIAL SITUATION – see Notes/Call.

THREE HOSPITALS NEED TO REROUTE

In the event that overcrowding and rerouting exists at the same time at two (2) hospitals in close geographic proximity (Addendum A) and the third hospital in the same geographic area needs to reroute, by prior agreement, all hospitals will terminate their rerouting **for a minimum of two hours (Forced Open)**. It will be the responsibility of the third hospital to initiate communication with the other rerouting hospitals' individuals responsible for reroute to review the situation. If any of the rerouted hospitals can stop rerouting they will do so, to avoid all hospitals having to stop rerouting.

REROUTING EMERGENCY

If none of the three hospitals can stop rerouting, then a "rerouting emergency" will be declared and the following procedures will be followed.

1. Update the GDAHA SurgeNet Web Page
2. All three hospitals will call previously notified agencies and inform them that rerouting emergency has been declared.
3. When a rerouting emergency is declared, Dayton Children's Hospital will remain available to accept patients up to 21 years of age *(no maternity patients*).
4. Squads should transport patients to their assigned reroute emergency "home base" hospital(s) (See Addendum B):

Note: During mutual aid or out of district transport as aided agency/district.

When emergency medical service personnel respond to an emergency call and the patient and/or physician requests him to proceed to a hospital which is rerouted, the emergency medical services personnel will have the responsibility of advising the patient and/or physician that "due to overcrowding of the hospital patient care may be jeopardized." **If the patient and/or physician still requests to be transported to the rerouted hospital, the emergency medical services personnel will contact and consult with a Medical Control physician in the emergency department of the rerouted hospital.**

All concerned parties should acknowledge the situation in which emergency medical services personnel (in the absence of a physician's judgment) may determine the victim to be in critical need of immediate medical care and decide to transport the victim to the nearest hospital, even though overcrowded conditions exist in the hospital. Any discussion concerning the decision of the emergency medical services personnel should be done privately and after the patient care has been initiated.

Emergency medical service personnel should use their radios, cellular phone or dispatcher to notify the rerouting hospital in unusual circumstances (critical illness or injury, multi-victim incidents, etc.).

GREATER DAYTON AREA HOSPITAL ASSOCIATION

POLICY STATEMENT FOR
TEMPORARY REROUTING OF EMERGENCY PATIENTS

ADDENDUM A

Geographic Areas:

1. In the event that overcrowding and rerouting exists at the same time at two (2) hospitals in the list below and a third hospital in the list below needs to reroute, by prior agreement no hospitals will reroute for two (2) hours.
    a. Good Samaritan Hospital
    b. Grandview Medical Center
    c. Kettering Medical Center
    d. Miami Valley Hospital

2. In the event that overcrowding and rerouting exists at the same time at two (2) hospitals in the geographic groups below and a third hospital needs to reroute, by prior agreement no hospitals will reroute for two (2) hours.

    a. Greene Memorial and two (2) of the following: Miami Valley, Kettering, Grandview, Southview or Miami Valley Hospital South.
    b. Upper Valley Medical Center and two (2) of the following: Good Samaritan, Grandview, Miami Valley, or Wilson Memorial Hospital in Sidney.
    c. Any three (3) of the following: Atrium Medical Center, Southview, Sycamore, Kettering and Miami Valley South.
    d. Wayne Hospital, Good Samaritan and Grandview.

PKB/pbt
8-24-09

ADDENDUM B
GREATER DAYTON AREA HOSPITAL ASSOCIATION

REROUTE EMERGENCY
EMS – HOSPITAL PROPOSED PAIRING

Reroute Emergency is declared when three or more hospitals in the same geographic area are extremely overcrowded and none of the three hospitals feel that they can stop rerouting. When a rerouting emergency is declared the following procedures will be followed.

1. The third rerouting hospital will coordinate communications with the designated administrative person in charge, at the other rerouting hospitals.
2. **Each GDAHA hospital** will notify the home base EMS agencies assigned to them, as well as other squads that they normally notify out of the GDAHA service area, and inform them that a **Rerouting Emergency** has been declared. Squads should transport patient to their assigned "*home base*" hospital. Only Good Samaritan Hospital will notify Harrison Township. Only Miami Valley Hospital will notify Dayton Fire Department. Only Sycamore Hospital will notify Miami Township.
3. Following notification of EMS, hospitals able to maintain Normal Operation should not change their status on the web page to Reroute Emergency, until conditions warrant that change.
4. Squads should CONSIDER utilizing outlying hospitals or other hospitals in normal status.
5. Dayton Children's Hospital will remain available to accept patients up to 21 years of age. *(No maternity patients.)*
6. Rerouting Emergency **DOES NOT** apply to the following categories of patients: respiratory and/or cardiac arrest; Trauma, maternity, serious burns, high risk neonatal, dialysis patient, air medical transport, hyperbaric, **cardiac or stroke** alert patients, or recently discharged patients (48 hours).
7. **After a maximum of two (2) hours all hospitals in Reroute Emergency must reevaluate their status.**
8. ***Squads should transport patients to their assigned reroute emergency "home base" hospital(s) as follows:***
   Note: During mutual aid or out of district transport as aided agency/district

Good Samaritan Hospital
Brookville
Clayton, Englewood, Union
Dayton Fire Department #16
Eaton
Harrison – Turner Road
New Lebanon
Lewisburg
Trotwood
West Alexandria
North Central
Phillipsburg

McCullough Hyde Hospital-Oxford
Camden

Upper Valley Medical Center
Miami County Squads

Greene Memorial Hospital
Cedarville Township
Cedarville University
Central State University
Jefferson Township
Miami Township
New Jasper Township
Silvercreek Township
Spring Valley
Xenia
Xenia Township

Grandview Medical Center
Box 21
Butler Township
Dayton Fire Department #2, 8, 13, 14
Harrison – I-75 & Needmore
Vandalia

Kettering Medical Center
Dayton Fire Department #15, 18
Kettering (4 units)
Miami Valley Fire District #55
Moraine (4 units)

Miami Valley Hospital
Dayton Fire Department #11, 10
Jefferson Township
Oakwood
Riverside
University of Dayton Public Safety

Miami Valley Hospital South
Bellbrook
Kettering #36
Sugarcreek (2 units)
Washington Township #44

Southview Medical Center
Clearcreek Township
Miami Valley Fire District #52
Washington Township #41, 42, 43, 45
Wayne Township

Sycamore Medical Center
Farmersville
Miami Valley Fire District #51, 53, 54
West Carrollton
Germantown
JEMS

Springfield Reg. Med Center
Hustead EMS
Madison Township
Harmony Township
Springfield Township
Pleasant Township
SFRD Medic
German Township
Pike Township
Bethel Township
Mad River Township
Moorefield Township

Wayne Healthcare
Darke County Squads

Wilson Memorial Hospital
Shelby County Squads

Atrium Medical Center
Gratis
Lebanon
Mason
Monroe
Turtlecreek
Middletown

Clinton Memorial Hospital-Wilmington
Massie Township

Reid Hospital-Richmond, Indiana
NW Fire – New Paris

Huber Heights Emergency
Huber Heights
New Carlisle
Bethel Miami

Soin Medical Center
Beavercreek
Fairborn

Pkb/pbt
8-24-09

ADDENDUM C

GREATER DAYTON AREA HOSPITAL ASSOCIATION
EMS REROUTE PAGER

A summary of the hospital reroute status is sent every 15 minutes. The following is an explanation of the abbreviations used

HOSPITAL NAME ABBREVIATIONS

DCH – Dayton Children's Hospital
GSH – Good Samaritan Hospital
GVH – Grandview Medical Center
GMH – Greene Memorial Hospital
KMC – Kettering Medical Center
SRMC – Springfield Regional Medical Center
MVH – Miami Valley Hospital
MVS – Miami Valley Hospital South
AMC – Atrium Medical Center, Franklin
SVH – Southview Medical Center
SYC – Sycamore Medical Center
UV – Upper Valley Medical Center
VA – Department of Veterans Affairs Medical Center
WAY – Wayne Hospital, Greenville
WMH – Wilson Memorial Hospital
WP – 88th Medical Center, WPAFB

HOSPITAL STATUS ABBREVIATIONS

NORM – Normal Operations
ALL – Reroute all Emergency Patients
MTO – Reroute all but major trauma (Major Trauma Only)
ICOR - Reroute Intensive and/or Coronary Care Patients Only
FO – Forced Open
EMR – Emergency Reroute
CALL – Special Situation Call the ED
LOCK – Internal Emergency ED is Closed

PKB/pbt
8-24-09

HOSPITAL CAPABILITIES CHART

HOSPITAL	Trauma Center Level A or P	Burn Center	Interventional Cardiac Cath Lab 24/7	Stroke Telemedicine with tPA ready 0-4 hrs	Stroke Primary tPA 0-4 hrs	Stroke Comprehensive 24/7 0-8 hrs	L & D
Atrium	A 3		Cardiac	Y	Y		Y
Dayton Children's Hos	P 2	Y					
Fort Hamilton			Cardiac	Y	Y		Y
Franklin Emer Ctr				Y			
Good Sam			Cardiac	Y	Y		Y
GSH North				Y			
Grandview	A 3		Cardiac	Y	Y		
Greene	A 3			Y			
Huber Emer Ctr				Y			
Jamestown				Y			
Kettering	A 2		Cardiac	Y	Y	KMC	Y
Mason				Y			
McCullough-Hyde				Y		Y	
Mercy Urbana				Y			
Miami Valley	A 1	Y	Cardiac	Y	Y	MVH	Y
MVH South				Y			Y
Preble Emer Ctr				Y			
Reid			Cardiac	Y			Y
Soin Medical	A 3			Y	Y		Y
Southview			Cardiac	Y	Y		Y
Springfield RMC			Cardiac	Y			Y
Sycamore				Y	Y		
Upper Valley				Y			Y
VA							
Wayne				Y			Y
West Chester	A 3		Cardiac	Y			Y
Wilson				Y			Y
WPAFB							Y

Notes: Comprehensive stroke centers have the capability of endovascular intervention 24/7.
Primary stroke centers have CT and tPA capabilities and focus on evaluating patients for intravenous tPA.
Telemedicine with tPA ready offers immediate access to a Neurologist.

RED = NO GREEN = YES	**TRAUMA CENTER LEVEL A or P**	**BURN CENTER**	**CARDIAC** Interventional Cath 24/7	**STROKE** 0-4 Hours Telemedicine tPA Ready	**STROKE** 0-4 Hours Primary Center	**STROKE** 24/7 0-8 Hours Comprehensive Endovascular Interventional	**L & D**
HOSPITALS							
Atrium	A 3						
Bethesda Arrow Sp							
Dayton Children's	P 2						
Fort Hamilton							
Franklin Emer Ctr							
Good Sam							
GSH North							
Grandview	A 3						
Greene	A 3						
Huber Emer Ctr							
Jamestown							
Kettering	A 2						
Mason							
McCullough-Hyde							
Mercy - Urbana							
Miami Valley	A 1						
Miami Valley South							
Preble Emer Ctr							
Reid							
Soin Medical	A 3						
Southview							
Springfield RMC							
Sycamore							
Upper Valley							
VAMC							
Wayne Healthcare							
West Chester	A 3						
Wilson Health							
WPAFB							

Notes: Comprehensive stroke centers have the capability of endovascular intervention 24/7.
Primary stroke centers have CT and tPA capabilities and focus on evaluating patients for intravenous tPA.
Telemedicine with tPA ready offers immediate access to a Neurologist.

Hospitals in **bold type** ask to be called for every patient.

	PHONE	FAX
Atrium Medical Center, Mason	513-229-3672	
Atrium Medical Center, Middletown	513-424-3924	513-420-5133
Bethesda Arrow Springs	**513-282-7222**	**513-282-7220**
Bethesda, Butler County	**513-893-8222**	**513-893-8321**
Children's Hospital South	**937-641-4444**	
Dayton Children's Hospital	**937-641-4444**	**937-641-5301**
Fort Hamilton	513-867-2144	513-867-2581
Franklin Emergency Center	937-458-4728	937-458-4737
Good Samaritan Hospital **Maternity**	937-275-9722 **937-734-7579**	937-276-8217
Grandview Hospital	937-723-3419	937-723-4609
Good Samaritan Hospital North	937-540-1067	937-734-5977
Greene Memorial Hospital	937-372-2297	937-352-3501
Huber Heights Emergency Center	937-558-3301	937-552-3349
Jamestown (MVH)	937-374-5274	937-374-5275
Kettering Medical Center	937-395-8080	937-395-8347
Mercy Memorial Hospital	937-484-6160	937-484-6183
McCullough-Hyde Hospital	**513-524-5353**	**513-523-0144**
Miami Valley Hospital **Maternity**	937-208-2440 **937-208-2408**	937-208-2521 **937-208-2651**
Miami Valley South Hospital **Maternity**	937-438-2662 **937-438-5817**	937-438-2262
Preble Emergency Center	937-456-8328	937-456-8377
Reid Memorial Hospital, Richmond, IN	**765-983-3161**	**765-983-3038**
Soin Medical Center **Maternity**	937-702-4525 **937-702-4525**	937-702-4509
Southview Hospital **Maternity**	937-435-1832 **937-401-6850**	937-401-6158 **937-401-6861**
Springfield Regional Medical Center	**937-523-1400**	**937-523-1950**
Sycamore Hospital	937-384-8766	937-384-8729
Upper Valley Medical Center Maternity	937-440-4600 937-440-4181	937-440-4346 937-440-4340
Veterans Administration Medical Center	**937-262-2172**	**937-267-5364**
Wayne Health Care, Greenville	**937-547-5777**	**937-547-5790**
West Chester Hospital **Maternity**	**513-298-7777** **513-298-7777**	**513-298-8978**
Wilson Memorial Hospital	937-492-4457 937-492-4512	937-498-4201
WPAFB Medical Center	**937-257-3295**	**937-656-1673**

Hospitals in **bold type** ask to be called for every patient.

Updated: November 2016

Greater Miami Valley EMS Council
Infectious Disease Exposure Reporting Policy

A. PURPOSE

This document provides public safety personnel (including fire, EMS, and law enforcement) and hospitals with a set of standard guidelines and expectations for defining, responding to, and following up on an infection control exposure incident involving an emergency response provider.

B. BLOODBORNE EXPOSURE

1. DEFINITION OF A BLOODBORNE EXPOSURE

An EXPOSURE incident that may place a public safety worker at risk for Hepatitis B Virus (HBV), Hepatitis C Virus (HCV), or Human Immunodeficiency Virus (HIV) infections or other blood borne pathogens that includes:

a. A percutaneous injury (e.g., a needle stick or cut), **or**
b. Contact of mucous membrane or non-intact skin (e.g., exposed skin that is chapped, abraded, or afflicted with dermatitis) with blood, tissue, or other body fluids that are potentially infectious.

What is NOT an exposure?

a. A percutaneous injury with a clean or sterile needle or instrument.
b. Intact skin splashed with potentially infectious blood, body fluid, or tissue.

2. POST EXPOSURE PROCEDURE

a. An exposed public safety worker should take the following immediate "first aid" action steps:
   - ☒ Immediately irrigate the involved area.
   - ☒ Flush eyes with copious amounts of normal saline, if indicated.
   - ☒ Wash skin vigorously with soap and water. If soap and water is not available, rinse area with another available solution such as normal saline or a water-based liquid. Waterless hand cleaners are not recommended for post-exposure gross decontamination, but can be used when other options are not available.

b. Employee shall report the exposure incident to the receiving hospital and to their immediate supervisor.
c. Exposed employees are REQUIRED to register as a patient at the receiving hospital (same receiving hospital as the source).
d. Once at the receiving hospital, the exposed employee should locate and complete the "Request for Information by Emergency Care Workers (RIECW)" form (see Appendix A). When completed, the form should be submitted to the nurse handling the exposed employee's care in the Emergency Department (ED).
e. The EMS Coordinator for the receiving hospital can serve as a liaison between the organization and the hospital. The department's infection control officer (ICO) or designated supervisor [1]should, upon receiving notification that there has been an exposure incident, notify the receiving hospital's EMS Coordinator.
f. Follow-up care/exam(s) will be provided to each employee involved when indicated. All follow-up care/exam(s) will be coordinated through your employer.

3. TESTING THE SOURCE PATIENT

a. A blood sample is required to determine whether a patient has HIV, HBV or HCV. Blood/Body Fluid (B/BF) testing of a source patient includes the following (MMWR, June 29, 2001):

- ☒ HIV antibody
- ☒ HBV surface antigen (HBsAg)
- ☒ HCV antibody

[1] For the purpose of this policy the "*department's Infection Control Officer (ICO), designated* supervisor*, or designee*" refers to the person responsible for reporting and coordinating an exposed employee's incident within that Public Safety entity.

b. If the source patient is TRANSPORTED to a hospital:

   1) The ED obtains patient consent and the blood specimen for testing.
   2) In the event that the patient refuses to or cannot give consent (e.g., due to an altered level of conscious) a hospital's "infection control committee… or other body of a health care facility performing a similar function" has the authority to obtain the HIV screening when there has been a significant exposure (Ohio Revised Code §3701.242).

c. If the source patient REFUSES TRANSPORT to a hospital:

   1) If the patient refuses to give consent for blood sampling and refuses transport, the public safety worker must follow up with their ICO or designee. At this point it is a legal matter to obtain the source patient's blood for testing (Ohio Revised Code §3701.247). Following a significant exposure in which the source patient refuses to provide a blood sample and refuses transport, the employee should seek immediate medical evaluation and counseling for themselves (MMWR, Sept. 30, 2013).
   2) In cases where the patient refuses transport, or in exposure incidents where the source patient is unknown, an exposed employee should follow the steps outlined in Section 5-Patients Not Transported to a Hospital.
   3) EDs or hospitals will not run source patient blood samples if the source patient is not a patient at their hospital.

4. SOURCE PATIENT (TRANSPORTED TO HOSPITAL) RESULTS

   a. Hospital-run HIV test results should be available within an hour (may be longer for "stand alone" or smaller EDs); HBV and HCV results may not be available for several days.
   b. The exposed employee is expected to remain a patient in the ED until they have received the results of the rapid HIV test and any additional counseling from the attending physician.
   c. The employee is expected to communicate his/her follow-up needs to your department's ICO or designated supervisor.
   d. Written notification of positive test results shall be provided directly to the affected employee by the hospitals designated infection control point of contact within three (3) days after oral notification (Ohio Revised Code §3701.248).
   e. Confidentiality of the source patient and public safety worker information shall be maintained at all times. Only information pertaining to source patient results will be released to the organization's ICO or designee and/or an employee who is still present in the ED as described above. The department ICO or designee and the public safety worker shall not disclose any medical information publicly about the source patient.

5. PATIENTS NOT TRANSPORTED TO A HOSPITAL BY EMS

   a. Employees should notify their immediate supervisor, and their immediate supervisor should notify the organization's ICO or designee. Federal regulations dictate that, "following report of an exposure, the employer shall make immediately available to the exposed employee a confidential medical evaluation and follow-up" (OSHA 29 CFR, 1910.1030(f) (3)).
   b. Exposed employee should be directed to any ED for treatment.
   c. Employee shall locate, complete, and sign the Request for Information by Emergency Care Workers (RIECW) Form (Appendix A), which should be available, completed, and submitted to the nurse handling care in the ED.
   d. If the public safety worker is aware that the patient went to an ED by other means, the employee's supervisor may call the ED charge nurse of the patient's destination and notify them of the exposure, with a request to obtain baseline testing of the source patient. The written Request for Notification of Test Results shall be faxed to the ED charge nurse as soon as possible by the employee or the department's ICO.

6. PROPHYLAXIS FOR BLOOD/BODY FLUID EXPOSED PUBLIC SAFETY WORKER

a. Post-exposure prophylaxis (PEP) treatment may be offered to the public safety worker by the ED or workplace health provider in accordance with current clinical guidelines and local PEP protocols. Additionally, the employee may wish to consult their personal physician.

1) The decision to take PEP includes a risk-based assessment based on known or unknown source patient and type of exposure.
2) Employees receiving PEP treatment should be followed up within 72 hours of starting treatment.
3) The PEP treatment decision should consider laboratory results when available.

b. HIV prophylaxis:

1) Decisions about chemoprophylaxis can be modified if additional information becomes available.
2) Public safety workers must register as ED patients to receive HIV prophylaxis from the hospital.
3) HIV PEP should be started as soon as possible.
4) Consideration should be given by the ED for expert consultation and guidance on HIV PEP (e.g., infectious disease physician, MMWR, 2011) or the National Clinicians' Post Exposure Prophylaxis Hotline @ #888-448-4911).
5) Counseling should be made available through the agency's employee assistance program (EAP) or by contractual agreements. Hepatitis Prophylaxis:

c. Hepatitis Prophylaxis

1) Hepatitis Prophylaxis is dependent on the public safety worker's vaccine status. A small percentage of immunized individual's protection from the vaccine declines over time, which may require Hepatitis B Immunoglobulin (HBIG) and additional doses of the Hepatitis B vaccine to protect against both the current exposure and future exposures. The results of the HBV Surface Antibody test will demonstrate the employee's immunity to HBV, but are not typically given in the ED as the results of the HBV Surface Antibody test are usually not available immediately. Employees must follow up with his/her organization's workplace health provider for related prophylaxis as soon as possible.
2) There is no prophylaxis for HCV at this time. In cases of positive source HCV results, the employee should follow up with his or her workplace health provider for medical evaluation and care.

7. PUBLIC SAFETY WORKER BASELINE TESTING

a. Baseline testing of the exposed public safety worker is the employee's choice. Agencies should maintain signed statements of employees who decline baseline testing/evaluation at the time of an exposure.
b. Baseline testing is the term given to the set of initial laboratory tests that should be drawn on an exposed employee. This data may be used to compare future assessments in determining if an infectious disease was contracted. Baseline testing is not emergent; however, evaluation for PEP as discussed above should be considered urgent and care sought immediately.
c. In cases where PEP was determined not an appropriate emergency treatment, the public safety worker should seek follow up care as instructed. This follow up should be by the organization's workplace health provider. This follow up should optimally occur the next day and no later than seven days post exposure (MMWR, 2001).
d. In cases where the source patient testing is negative but the public safety worker still wants further testing, the employee is encouraged to follow up with their private physician or your department's workplace health provider.

e. Public safety worker baseline testing includes at minimum:

1) HIV antibody
2) Hepatitis B surface antibody
3) Hepatitis B surface antigen
4) Hepatitis C virus antibody

C. RESPIRATORY EXPOSURE

1. Respiratory exposure is defined as contamination with an infectious agent through the respiratory tract. This occurs via one of two routes (CDC, Rationale for Isolation Precautions in Hospitals, 1996):

    a. Via airborne infectious agents with small-particle residue [5 μm or smaller] of evaporated droplets containing microorganisms that remain suspended in the air for long periods of time (example is tuberculosis, rubella, and varicella virus).
    b. Via droplet infectious agents which are propelled a short distance (less than three feet) through the air by coughing or sneezing: these droplets are acted upon rapidly by gravity (examples are meningitis, pertussis and influenza).

2. Respiratory exposures may not be immediately known by the public safety worker, especially if the patient is not overtly symptomatic.

3. IMMEDIATE ACTIONS OF THE AIRBORNE-EXPOSED PUBLIC SAFETY WORKER
    a. Don PPE as soon as possible at the scene or during transport if the patient is known to have a respiratory infection or is coughing or spraying secretions.
    b. If secretions are splashed or coughed into the eyes or other mucous membranes, flush with copious amounts of normal saline as soon as possible.
    c. The public safety worker who suspects a respiratory exposure or is notified of such an exposure should:
        ☒ Notify the department ICO that an exposure occurred
        ☒ Notify the ED charge nurse of the exposure upon delivery of the patient
        ☒ Complete the *Request for Notification of Test*. In these cases being checked in as an ED patient may or may not be necessary.

        Upon receipt of the source patient's diagnosis, follow-up care and prophylaxis may be necessary for those exposed. At this point exposed employees may have to return to the receiving hospital and be checked in as a patient to receive care. In other situations follow-up care and prophylaxis may come from your department's workplace health provider.

4. PROPHYLAXIS FOR THE AIRBORNE-EXPOSED PUBLIC SAFETY WORKER

    a. If an exposed employee needs prophylaxis, prophylaxis should be coordinated thru the receiving (or notifying) hospital or when immediately available at the department's workplace health provider's clinic.

5. TESTING THE SOURCE PATIENT
    a. Source testing for respiratory exposures is done by the hospital based on patient symptoms.

6. SOURCE PATIENT RESULTS

    a. The hospital ICO or designee will notify the department ICO or designee of the infectious agent as soon as possible after symptoms of clinical presentation, or within 48 hours of a positive infectious agent determination.
    b. Your organization's ICO, possibly after consulting with your department physician, will assess the potential exposure of the employee based on the interaction history with the source patient and the agent involved.
    c. Confidentiality of source patient and the employee's information shall be maintained at all times. Only information pertaining to source patient results will be released to the department's ICO.

D. BLOOD or BODY FLUID & AIRBORNE EXPOSURES BY CORONER'S CASES

1. In cases where there is a public safety worker exposure during resuscitation efforts, it is recommended that crews transport the patient to the hospital where source testing can be performed, rather than follow field termination procedures. However, in some incidents, exposure of a public safety worker may occur from a deceased victim who must remain at a scene for a period of time pending a coroner's investigation.

2. Immediate actions of the exposed provider:

    a. Decontaminate self as described in previous sections.
    b. Notify the department ICO or designee that the exposure occurred.
    c. At the direction of the department ICO or designee, seek treatment at an ED or at your organization's workplace health provider.
    d. Consider prophylaxis based on the index of suspicion.

3. Actions of the ICO or designee:

    a. The Coroner or Coroner's Investigator shall be notified as soon as possible by the department's ICO or designee that an exposure has occurred.
    b. A *Request for Information by Emergency Care Workers* form (Appendix A) shall be forward to the Coroner's Office as soon as possible after notification.

4. Testing the source patient:

    a. The Coroner shall make every effort to test a source patient by the next business day of being notified of the exposure. In some cases, the Coroner may elect to send a specimen to an outside lab for testing. The public safety worker shall not wait for testing results from the Coroner to seek medical evaluation.

5. Source patients test results:

    a. The Coroner or Deputy Coroner shall notify the department ICO or designee of source patient test results as soon as possible. Oral notification of source HIV status (positive or negative) shall be provided to the department ICO or designee within two days of test results, and written notification of positive test results shall be provided within three days after oral notification (ORC §3701.248).

APPENDIX A

REQUEST NO. 10349

REQUEST FOR INFORMATION
BY EMERGENCY CARE WORKERS

PLEASE PRINT - Use Blue or Black Ink - PRESS HARD

This form is for use by emergency care workers to request information on the presence of a contagious or infectious disease (if known) of a person, alive or dead, who has been treated, handled, or transported for medical care by an emergency care worker.

Before you can be provided with this information, you must believe that you have suffered significant exposure through contact with the person about whom you are requesting the information. A significant exposure means:

(1) A percutaneous (break in skin or needle stick) or mucous membrane exposure (eyes, nose, mouth) to the blood, semen, vaginal secretions, or spinal, synovial (joint, bone, tendon), pleural (lung), peritoneal (abdomen), pericardial (heart), or amniotic fluid of another person; or

(2) Exposure to a contagious or infectious disease.

You may expect to receive a reply to this request within 2 days after contagious or infectious disease testing results are known. This may be longer than 2 days after you submit your request. A written notification will follow. Your supervisor will also be informed.

Deposit top (white) copy in designated area or with charge nurse. Submit yellow copy to your agency or employer. Retain pink copy.

The requestor should follow his/her agency's or employer's exposure control plan for post-exposure follow up.

PLEASE PRINT CLEARLY

1. Your Name: _____

2. Your Home Address: _____
   City/State/Zip: _____

3. Your telephone number: Home: _____ Work: _____ Pager: _____

4. Have you completed more than two (2) injections in Hepatitis B series. Yes _____ No _____

5. Employer or volunteer agency for whom you were administering health care when exposure occurred:
   Employer or Agency: _____
   Address: _____
   City/State/Zip: _____ Phone: _____

6. Name of your supervisor at above listed place of employment or volunteer agency: _____
   _____

7. Regarding the exposure, what was
   Name of Source Patient: _____
   Date: _____ Time: _____
   Place: _____
   Manner of exposure:
   _____ Dirty Needle Stick
   _____ Splash - Eye, Nose, Mouth
   _____ Broken Skin Exposure
   _____ Unprotected Mouth to Mouth
   Other: **Describe the Incident (be specific)** _____
   _____

This is to attest that the above statements are true and correct to the best of my knowledge and belief.

Your Signature: _____ Date: _____

ACKNOWLEDGEMENT

Name of Health Care Facility/Coroner: _____
Name of Person Receiving Request: _____
Signature of Person Receiving Request: _____
Received: Date _____ Time _____

White: Hospital/Coroner Yellow: Agency/Employer Pink: Requestor's Copy

APPENDIX B

RESPONSE TO EMERGENCY CARE WORKER REQUEST FOR MEDICAL INFORMATION

REQUEST NO. _____

THIS INFORMATION HAS BEEN DISCLOSED TO YOU FROM CONFIDENTIAL RECORDS PROTECTED FROM DISCLOSURE BY STATE LAW. YOU SHALL MAKE NO FURTHER DISCLOSURE OF THIS INFORMATION WITHOUT THE SPECIFIC, WRITTEN, AND INFORMED RELEASE OF THE INDIVIDUAL TO WHOM IT PERTAINS, OR AS OTHERWISE PERMITTED BY STATE LAW. A GENERAL AUTHORIZATION FOR THE RELEASE OF MEDICAL OR OTHER INFORMATION IS NOT SUFFICIENT FOR THE PURPOSE OF THE RELEASE OF HIV TEST RESULTS OR DIAGNOSES, DISCLOSED ON THIS FORM.

1. Date of oral report: _____ Person giving report: _____
   Report given to worker ☐ Supervisor ☐ Supervisor's name _____
   Written report will be given to worker and supervisor within 3 working days following oral notification of final results.

2. Date of written report: _____ Person sending report: _____
   Report sent to worker ☐ supervisor ☐ Supervisor's name _____

3. Your request for information has been received.
   a. _____ The request has been rejected because: _____
   _____
   Presence of a contagious or infections disease at this time is unknown due to:
   b. _____ No tests were performed.
   c. _____ The source person in question has refused HIV testing.
   d. _____ Source patient discharged home.
   e. _____ No blood available
   f. _____ Source patient discharged to health care facility/coroner's office/funeral home.
   Address of facility/coroner's office/funeral home (if known):
   _____
   g. The following tests were performed on source patient with **negative results**: _____
   _____
   h. Testing on source person in question was **positive for**: _____
   _____

Comments: _____
_____
_____
_____

4. Written and oral report included:
   - ☐ Name of disease
   - ☐ Signs & symptoms of disease
   - ☐ Date of Exposure
   - ☐ Incubation period of disease
   - ☐ Mode of transmission
   - ☐ (Medical) precautions necessary to prevent transmission
   - ☐ Recommended prophylaxis (if any)
   - ☐ Suggested treatment
   - ☐ Appropriate Counseling

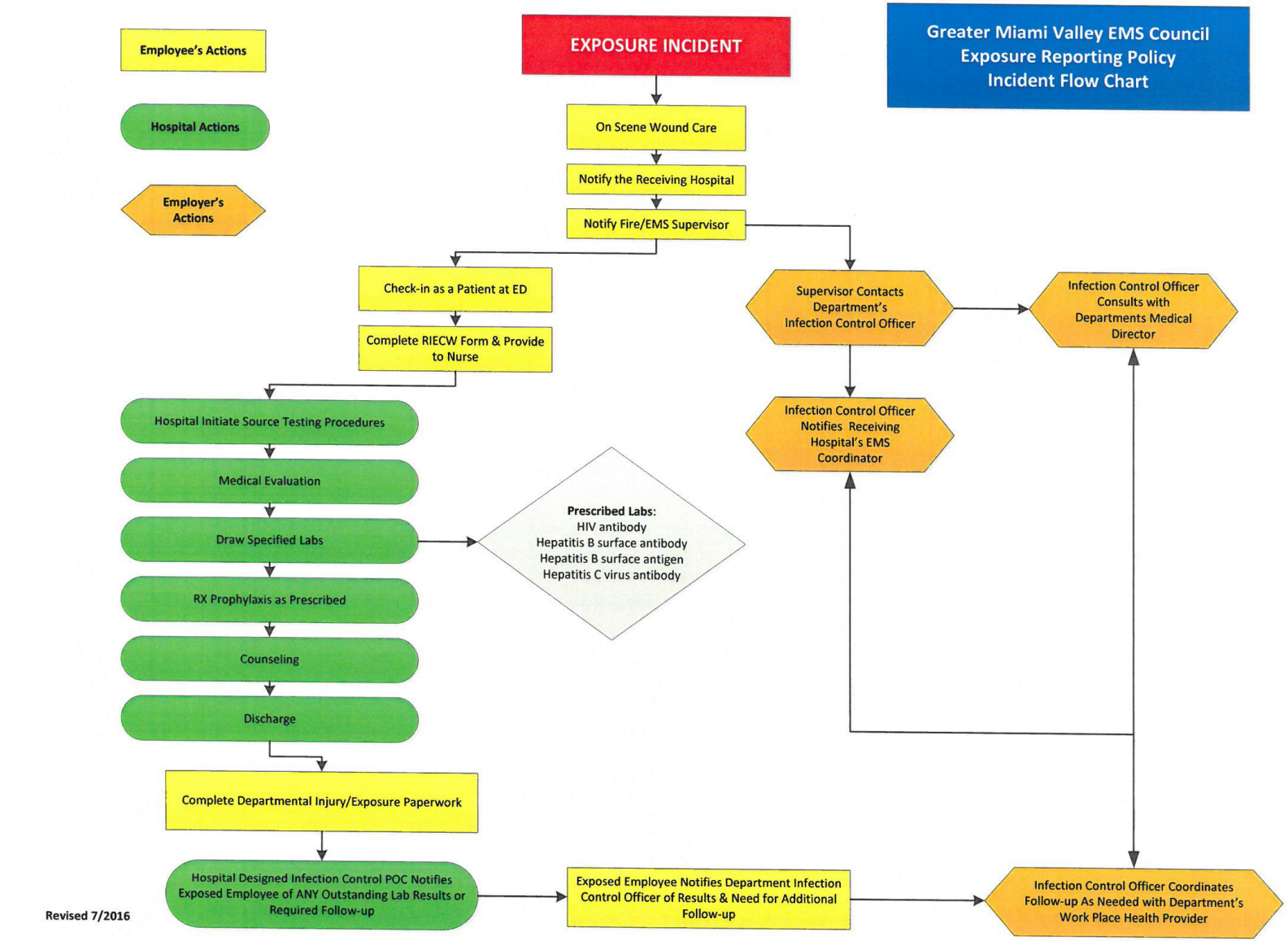
5. Sources of materials provided regarding disease: _____
   _____

6. It is expected that the emergency care worker will consult a physician in cases of true disease exposure. It is understood by provider of report and recipients that decisions related to prophylaxis, treatment, and counseling will be at the discretion of that physician.

THIS RESPONSE PROVIDES ALL INFORMATION AVAILABLE AS OF THE DATE OF THIS WRITTEN RESPONSE. ANY ADDITIONAL REQUEST WILL NEED TO BE SUBMITTED FOR ANY FUTURE INFORMATION REGARDING THIS PATIENT.

White: Requestor's Copy Yellow: Agency/Employer Pink: Hospital Infection Control Committee/Coroner

4-2014


Greater Miami Valley EMS Council
Exposure Reporting Policy
Incident Flow Chart
Employee's Actions
Hospital Actions
Employer's Actions
EXPOSURE INCIDENT
On Scene Wound Care
Notify the Receiving Hospital
Notify Fire/EMS Supervisor
Check-in as a Patient at ED
Complete RIECW Form & Provide to Nurse
Supervisor Contacts Department's Infection Control Officer
Infection Control Officer Consults with Departments Medical Director
Infection Control Officer Notifies Receiving Hospital's EMS Coordinator
Hospital Initiate Source Testing Procedures
Medical Evaluation
Draw Specified Labs
Prescribed Labs:
HIV antibody
Hepatitis B surface antibody
Hepatitis B surface antigen
Hepatitis C virus antibody
RX Prophylaxis as Prescribed
Counseling
Discharge
Complete Departmental Injury/Exposure Paperwork
Hospital Designed Infection Control POC Notifies Exposed Employee of ANY Outstanding Lab Results or Required Follow-up
Exposed Employee Notifies Department Infection Control Officer of Results & Need for Additional Follow-up
Infection Control Officer Coordinates Follow-up As Needed with Department's Work Place Health Provider
Revised 7/2016

Region 2 EMS Providers,

This Training Manual has been produced as a result of countless hours of work by a diverse cross section of the EMS community in the Region. The members of the Standing Orders and Continuing Education Committees, and the RPAB have put countless hours into this document. The groups have responded to changes in medication availability, procedural changes and have used your input to improve these documents.

There are companion documents and additional resources that are available for you to either view online or/ download for further explanation on the Training and Testing process for 2017. The first of these is the "2017 Implementation Guide". It addresses the new philosophy, CEUs, and other important information regarding the testing. The other is the Ohio Public Safety "Scope of Practice" document. We hope to have additional supplemental material posted on the website soon.

The Training Manuals and processes would not have been possible without the strong foundation left by the many past chairpersons of the Continuing Education Committee and all of the council members. Thank you to all who have volunteered and critiqued these manuals.

I would like to take time for a special thank you to Bill Mangas and Terri Norris who have managed the written testing process for many years. Terri has managed the GMVEMSC website for years. They have both moved on to new adventures. Best wishes!

I would also like to thank Dr. Randy Marriott and all of the RPAB members.

Sincerely,

Jack A. Mix
Standing Orders Co-Chair

2016 EMR Changes

p. 2 Added note about patients with oxygen needs.
P. 4 Changed title Spinal Immobilization Protocol to Spinal Motion Restriction. Changed immobilization to restriction as appropriate throughout the manual.
P. 5 Under SMR, added statement about the removal of athletic equipment for the injured athlete prior to transport to any facility.
P. 8 Repeat vitals on trauma patients every 5 minutes.
P. 10 Added statement about destination of pregnant trauma patients.
P. 15 Deleted Altered Level of Consciousness, covered elsewhere.
P. 16 Added statement about destination of pregnant trauma patients.
P. 49 Modified equipment requirements to participate in the drug bag program beginning 1 Jan 2016

May repeat Narcan IN as many times as is needed.

Hospital phone numbers changed

2017 EMR CHANGES

p. 1 Added ALTE, PAT, Sepsis and Infectious Disease Protocol
p. 2 Any patient in respiratory distress on oxygen shall remain on oxygen until care is transferred to hospital.
p. 5 Added PAT
p. 6 Clarified use of c-collar on patients ≥ age 70 and deleted SMR for penetrating trauma.
p. 7 Added new SMR chart
p. 9 Changed title to 2015 CPR Guidelines
p. 9 Changed compression rate to 100-120 per min.
p. 13 Added Open skull fracture to anatomy of injury criteria per state change
p. 13 Changed intubation criteria in Physiological Adult to Needs ventilatory support per state change
p. 13 Added: Respiratory rate less than 20 per minute in infants less than 1 year old per state change
p. 13 Changed intubation criteria in Geriatric to Needs ventilatory support per state change
p.14 Added Vehicle telemetry consistent with high risk of injury to Mechanism of Injury per state change
p. 16 Deleted time frames for crush syndrome. Call MCP immediately when a crushed patient is encountered and prior to relieving the load.
p. 16 Corrected verbiage for tourniquet application.
p. 19 Added information about calling for a Cyanide antidote kit
p. 21 Modified weights for administration of Epinephrine
p. 22 Emphasized the need to perform and document abd. exams on pts with abd. pain
P. 22 ABSOLUTELY NO PREGNANT PATIENTS TO DAYTON CHILDREN'S HOSPITAL
p. 26 Added ALTE
p. 27 Changed headings to Adult and Pediatric Abuse
p. 37 Changed pounds to kilograms for Atropine
p. 77 Added L&D capability to McCullough Hyde
p. 78 Changed name to Dayton Children's Hospital throughout
p. 80 Added Infectious Disease Protocol