FOREWORD

This document, at its core, represents the delegation of physician medical practice to a group of trusted Clinicians. It is designed to be an enabling rather than restrictive document. It is crafted to provide guidance in the treatment of common clinical presentations rather than the myriad of unusual cases we may encounter. In essence this document provides a framework for the care we provide. Clinicians are expected to consult the On-Line Medical Control Physician when faced with a situation where further clinical guidance or clarification is required.

Each treatment protocol is formatted in color coded boxes representing BLS, ALS, and OLMC treatments, as well as clinical pearls for optimizing care. New in this version are the boxes for Quality Measures and References to facilitate moving towards evidenced based protocols wherever possible. The components of these boxes are bulleted rather than numbered to allow the clinician to tailor their care but should generally be followed in order. Occasionally, flowcharts are used to illustrate stepwise decision and treatment algorithms. You will not see “general supportive care” components such as IV, O2, or monitor listed in each protocol unless they are specifically required when not necessarily obvious. Clinicians should use their judgment and provide these foundational steps in care to all patients who require them regardless of whether or not they are specifically listed in the protocol. In the electronic version of the document located at www.pinellascounty.org/ems/mom, hyperlinks will allow you to navigate to the needed protocol and reference materials rapidly and seamlessly.

As this document represents our work in the ever-evolving discipline of medicine, we share a responsibility to our patients to continuously revise, refine, and improve our care and the treatment guidelines in this document. It is anticipated that revisions will be made on a routine and ongoing basis.

The “2016 Version 1 of the Pinellas County EMS Medical Operations Manual” is hereby authorized for use effective September 7, 2016.

Angus M. Jameson MD MPH
EMS Medical Director
Pinellas County
# Table of Contents

## ADMINISTRATIVE

| AD1 | Priority Dispatch and Response Modes to 911 Calls |
| AD2 | Ambulance Requests on a Non-Emergency Line |
| AD3 | Poison Information Center Consultation |
| AD4 | MPDS Local Options |
| AD5 | Mental Health Transport Unit |
| AD6 | EMS Supply Handling - Ambulance |
| AD7 | EMS Supply Handling - First Responder |
| AD8 | Blood Pressure Screening |
| AD9 | Florida Department of Motor Vehicles Medical Reporting Form |
| AD10 | Mutual Aid Medical Care Procedure |
| AD11 | Newborn Babies Surrendered at Fire/EMS Stations |
| AD12 | Staging |
| AD13 | Wheelchair Transport |
| AD14 | Reserved for Future Use |
| AD15 | Post Exposure Prophylaxis (PEP) |
| AD16 | BLS/ALS Pharmaceutical and Medical Supply Authorizations and Substitutions |
| AD17 | Philips MRx Clinical Configuration |
| AD18 | Trauma Transport Protocol |
| AD19 | Controlled Substance Management |

## CLINICAL STANDARD

<p>| CS1 | Universal Approach to Patient Care |
| CS2 | Patient Bill of Rights |
| CS3 | Patient Safety Protocol |
| CS4 | Definition of a Patient |
| CS5 | Hospital Destination Policy |
| CS6 | Refusal of Care |
| CS7 | Deceased Persons/Obvious Death/Withholding Resuscitation |
| CS8 | Honoring DNRO/POLST Forms |
| CS9 | Reserved for Future Use |
| CS10 | Patient Care Report and Transfer of Care |
| CS11 | Approach to Mass Casualty Incidents (MCI) |
| CS12 | Reserved for Future Use |
| CS13 | Interfacility Transfers |
| CS14 | Mandatory Reporting Requirements |
| CS15 | Online Medical Control (OMC) |
| CS16 | Blood Alcohol Specimen |
| CS17 | Involuntary Transport Policy |
| CS18 | Narrative Documentation |
| CS19 | Special Patient Protocol |
| CS20 | Transport Resource Utilization |
| CS21 | Medical Operations at Incidents with Ongoing Threats (Active Shooter Response) |</p>
<table>
<thead>
<tr>
<th><strong>AIRWAY</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1</strong></td>
<td>Foreign Body Airway Obstruction</td>
<td></td>
</tr>
<tr>
<td><strong>A2</strong></td>
<td>Asthma/Chronic Obstructive Pulmonary Disease (COPD)</td>
<td></td>
</tr>
<tr>
<td><strong>A3</strong></td>
<td>Tracheostomy Emergencies</td>
<td></td>
</tr>
<tr>
<td><strong>A4</strong></td>
<td>Carbon Monoxide (CO) Monitoring and Toxicity</td>
<td></td>
</tr>
<tr>
<td><strong>A5</strong></td>
<td>Cyanide Poisoning - Smoke Inhalation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>CARDIAC</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>C1</strong></td>
<td>Suspected Acute Coronary Syndromes (ACS)</td>
<td></td>
</tr>
<tr>
<td><strong>C2</strong></td>
<td>Bradycardia</td>
<td></td>
</tr>
<tr>
<td><strong>C3</strong></td>
<td>Tachycardia (Wide/Narrow)</td>
<td></td>
</tr>
<tr>
<td><strong>C4</strong></td>
<td>Cardiogenic Shock</td>
<td></td>
</tr>
<tr>
<td><strong>C5</strong></td>
<td>Medical Cardiac Arrest</td>
<td></td>
</tr>
<tr>
<td><strong>C6</strong></td>
<td>Congestive Heart Failure (CHF) and Pulmonary Edema</td>
<td></td>
</tr>
<tr>
<td><strong>C7</strong></td>
<td>Post Medical Cardiac Arrest Care</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MEDICAL</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>M1</strong></td>
<td>Abdominal Pain/Nausea and Vomiting</td>
<td></td>
</tr>
<tr>
<td><strong>M2</strong></td>
<td>Allergic Reactions and Anaphylaxis</td>
<td></td>
</tr>
<tr>
<td><strong>M3</strong></td>
<td>Behavioral Emergencies</td>
<td></td>
</tr>
<tr>
<td><strong>M4</strong></td>
<td>Cerebral Vascular Accident (CVA)</td>
<td></td>
</tr>
<tr>
<td><strong>M5</strong></td>
<td>Diabetic Emergencies</td>
<td></td>
</tr>
<tr>
<td><strong>M6</strong></td>
<td>Drowning/Near Drowning - Adult</td>
<td></td>
</tr>
<tr>
<td><strong>M7</strong></td>
<td>Heat Emergency</td>
<td></td>
</tr>
<tr>
<td><strong>M8</strong></td>
<td>Cold Emergency</td>
<td></td>
</tr>
<tr>
<td><strong>M9</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>M10</strong></td>
<td>Preeclampsia/Eclampsia</td>
<td></td>
</tr>
<tr>
<td><strong>M11</strong></td>
<td>Obstetrical Emergencies</td>
<td></td>
</tr>
<tr>
<td><strong>M12</strong></td>
<td>Poisoning and Overdose</td>
<td></td>
</tr>
<tr>
<td><strong>M13</strong></td>
<td>Acute Pain Management</td>
<td></td>
</tr>
<tr>
<td><strong>M14</strong></td>
<td>Seizures</td>
<td></td>
</tr>
<tr>
<td><strong>M15</strong></td>
<td>Gastrointestinal (GI) Hemorrhage</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TRAUMA</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T1</strong></td>
<td>General Trauma Care</td>
<td></td>
</tr>
<tr>
<td><strong>T2</strong></td>
<td>Traumatic Cardiac Arrest</td>
<td></td>
</tr>
<tr>
<td><strong>T3</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>T4</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>T5</strong></td>
<td>Eye Injury</td>
<td></td>
</tr>
<tr>
<td><strong>T6</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>T7</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>T8</strong></td>
<td>Reserved for Future Use</td>
<td></td>
</tr>
<tr>
<td><strong>T9</strong></td>
<td>Bites and Stings</td>
<td></td>
</tr>
<tr>
<td><strong>T10</strong></td>
<td>Burns</td>
<td></td>
</tr>
<tr>
<td><strong>T11</strong></td>
<td>Barotrauma/Diving Injuries</td>
<td></td>
</tr>
</tbody>
</table>
# Table of Contents

## PEDIATRIC

<table>
<thead>
<tr>
<th>P1</th>
<th>Universal Approach to Pediatric Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2</td>
<td>Altered Mental Status</td>
</tr>
<tr>
<td>P3</td>
<td>Allergic Reaction and Anaphylaxis</td>
</tr>
<tr>
<td>P4</td>
<td>Apparent Life Threatening Event (ALTE)</td>
</tr>
<tr>
<td>P5</td>
<td>Asthma</td>
</tr>
<tr>
<td>P6</td>
<td>Bradycardia</td>
</tr>
<tr>
<td>P7</td>
<td>Medical Cardiac Arrest (Pediatric)</td>
</tr>
<tr>
<td>P8</td>
<td>Diabetic Emergencies</td>
</tr>
<tr>
<td>P9</td>
<td>Drowning/Submersion</td>
</tr>
<tr>
<td>P10</td>
<td>Hypothermia</td>
</tr>
<tr>
<td>P11</td>
<td>Hyperthermia/Fever</td>
</tr>
<tr>
<td>P12</td>
<td>Neonatal Resuscitation</td>
</tr>
<tr>
<td>P13</td>
<td>Acute Pain Management</td>
</tr>
<tr>
<td>P14</td>
<td>Post Medical Cardiac Arrest (Pediatric)</td>
</tr>
<tr>
<td>P15</td>
<td>Seizures</td>
</tr>
<tr>
<td>P16</td>
<td>Tachycardia</td>
</tr>
<tr>
<td>P17</td>
<td>General Trauma Care</td>
</tr>
<tr>
<td>P18</td>
<td>Foreign Body Airway Obstruction</td>
</tr>
</tbody>
</table>

## CLINICAL PROCEDURE

<table>
<thead>
<tr>
<th>CP1</th>
<th>Adult Airway Management and Advanced Airway Placement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP2</td>
<td>Auto-injector Use</td>
</tr>
<tr>
<td>CP3</td>
<td>Continuous Waveform Capnography</td>
</tr>
<tr>
<td>CP4</td>
<td>Cardiac Arrest Compression Performance Resuscitation</td>
</tr>
<tr>
<td>CP5</td>
<td>Continuous Positive Airway Pressure (CPAP)</td>
</tr>
<tr>
<td>CP6</td>
<td>Adult Surgical Cricothyrotomy Airway Access</td>
</tr>
<tr>
<td>CP7</td>
<td>Orogastric Tube Insertion</td>
</tr>
<tr>
<td>CP8</td>
<td>Spinal Motion Restriction (SMR)</td>
</tr>
<tr>
<td>CP9</td>
<td>Intraosseous Access</td>
</tr>
<tr>
<td>CP10</td>
<td>Needle Thoracostomy</td>
</tr>
<tr>
<td>CP11</td>
<td>Physical Restraints</td>
</tr>
<tr>
<td>CP12</td>
<td>Patient Restraint for Transport</td>
</tr>
<tr>
<td>CP13</td>
<td>Troubleshooting and Emergency Access of Indwelling Catheters</td>
</tr>
<tr>
<td>CP14</td>
<td>Troubleshooting Implanted Medical Devices</td>
</tr>
<tr>
<td>CP15</td>
<td>Synchronized Cardioversion</td>
</tr>
<tr>
<td>CP16</td>
<td>CAT Tourniquet</td>
</tr>
<tr>
<td>CP17</td>
<td>Reserved for Future Use</td>
</tr>
<tr>
<td>CP18</td>
<td>Transcutaneous Pacing (TCP)</td>
</tr>
<tr>
<td>CP19</td>
<td>Normal Childbirth Procedures</td>
</tr>
<tr>
<td>CP20</td>
<td>Pediatric Needle Cricothyroidotomy Procedure</td>
</tr>
<tr>
<td>CP21</td>
<td>Pediatric Airway Management and Advanced Airway Placement</td>
</tr>
<tr>
<td>CP22</td>
<td>Traction Splint</td>
</tr>
<tr>
<td>CP23</td>
<td>Hyfin Vent Compact Chest Seal</td>
</tr>
<tr>
<td>CP24</td>
<td>Wound Packing with QuikClot® Combat Gauze and Emergency Trauma Dressing (ETD)</td>
</tr>
</tbody>
</table>
# Table of Contents

## Formulary

| F1  | Adenosine               |
| F2  | Albuterol Sulfate       |
| F3  | Amiodarone Hydrochloride|
| F4  | Aspirin                 |
| F5  | Atropine                |
| F6  | Calcium Chloride        |
| F7  | Dextrose                |
| F8  | Diazepam                |
| F9  | Diltiazem               |
| F10 | Diphenhydramine         |
| F11 | Dopamine Hydrochloride  |
| F12 | Epinephrine             |
| F13 | Etomidate               |
| F14 | Fentanyl Citrate        |
| F15 | Glucagon Hydrochloride  |
| F16 | Hydroxocobalamin        |
| F17 | Ipratropium Bromide     |
| F18 | Lidocaine Hydrochloride |
| F19 | Magnesium Sulfate       |
| F20 | Methylprednisolone Sodium Succinate |
| F21 | Midazolam Hydrochloride |
| F22 | Morphine Sulfate        |
| F23 | Naloxone Hydrochloride  |
| F24 | Nitroglycerin Aerosol   |
| F25 | Ondansetron             |
| F26 | Oral Glucose            |
| F27 | Sodium Bicarbonate 8.4% |
| F28 | Sodium Chloride (0.9% IV Fluid) for Injection |
| F29 | Tetracaine Hydrochloride Ophthalmic Solution |

## Clinical Tools

| CT1 | EMS Cognitive Evaluation |
| CT2 | Heat Emergency Clinical Findings |
| CT3 | Cold Emergency Clinical Findings |
| CT4 | Burns - Rule of 9's |
| CT5 | Pediatric Asthma Exacerbation Symptoms |
| CT6 | Cardiac Arrest Pit Crew Model |
| CT7 | Epinephrine Drip Chart |
| CT8 | Indwelling Catheters |
| CT9 | King Airway |
| CT10 | Formulary Pregnancy Category Definitions |
| CT11 | Cyanokit Clinical Tool |
| CT12 | Adult Trauma Scorecard |
| CT13 | Pediatric Trauma Scorecard |
| CT14 | Apgar Score |
**AD1 Priority Dispatch and Response Modes to 911 Calls**

**Purpose**

To establish a procedure to ensure that the appropriate resources are dispatched in the appropriate response to 911 requests for assistance received by the Pinellas County EMS System.

**Description**

The Pinellas County EMS System responds to a large number of requests for emergency and non-emergency medical assistance every day. To ensure that all requests receive a consistent determination of appropriate response assignment, gathering of information to relay to responders, and pre-arrival medical instructions, a comprehensive and pre-determined system of call classification and triage is necessary.

**Definitions**

1. “Response Mode” means either an “Emergency Response” (lights and sirens) or a “Downgraded Emergency” response (no lights and sirens).
2. “Emergency Response” may be called “HOT”, “Upgraded”, or “Priority 1” and indicates use of lights and sirens.
3. “Downgraded Emergency” may be called “COLD”, “Downgraded”, or Priority 2” and indicates that no lights or sirens are being used.
4. “Response Configuration” means First Responder, Ambulance, or both sent to a call for assistance.
5. “EMD” means an Emergency Medical Dispatcher certified by the National Academies of Emergency Medical Dispatch.
6. “911 Center” means the Pinellas County Regional 911 Center
7. “Sunstar Communications” means the Sunstar staff located in the 911 center who perform call taking, dispatching, and System Status Management.
8. “911 Dispatcher” means a 911 Center staff member who is performing EMD or radio channel operator function.
9. “EMD Determinant” is the code assigned to each type of 911 call processed using the MPDS.
10. “Unfounded Incident” means an incident that is unable to be located or has no patient able to be found when responders arrive.
11. “At Patient” means that a responder has arrived at the patient’s side such that patient assessment and care can be initiated.
12. “On Scene” means that a responder has arrived at the address or physical location of the incident. In general this is the time at which the response vehicle is parked.
Policy

Medical Priority Dispatch System

The Pinellas County EMS System has adopted caller interrogation instructions set forth in the National Academies of Emergency Dispatch’s Medical Priority Dispatch System (MPDS), Version 13 Protocols. From time to time, it may become necessary for the system to amend or modify interrogation questions, pre-arrival medical instructions, and response configurations because of medical research, local needs, and the evolution of the MPDS via protocol or medical control directive (Reference AD4).

Response Matrix

All Pinellas County EMS ALS First Responders and Ambulances will respond following the response matrix:

<table>
<thead>
<tr>
<th>Call Determinant</th>
<th>ALS First Responder</th>
<th>ALS Ambulance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Echo</td>
<td>Emergency</td>
<td>Emergency</td>
</tr>
<tr>
<td>Delta</td>
<td>Emergency</td>
<td>Emergency</td>
</tr>
<tr>
<td>Charlie</td>
<td>Emergency</td>
<td>Emergency</td>
</tr>
<tr>
<td>Bravo</td>
<td>Emergency</td>
<td>Emergency - if Ambulance is assigned per EMD Determinant</td>
</tr>
<tr>
<td>Alpha</td>
<td>Downgraded Emergency</td>
<td>Downgraded Emergency - if Ambulance is assigned per EMD Determinant</td>
</tr>
<tr>
<td>Omega</td>
<td>Downgraded Emergency</td>
<td>Downgraded Emergency – if Ambulance is assigned per EMD Determinant</td>
</tr>
</tbody>
</table>

Response Matrix Exceptions

23 Ω may be processed with Poison Information Center consultation prior to dispatching response units (Reference AD3).

First Responder Only Determinants

The following determinants will receive and ALS First Responder assignment only (no Ambulance):
Upon receipt of a 9-1-1/EMS call, Pinellas County Emergency Communications (9-1-1) will process the call and dispatch the appropriate unit(s) by closest available unit regardless of jurisdiction following the response determinant matrix. The Sunstar Communications Center will dispatch the closest available and most appropriate ambulance(s) following the response determinant matrix.

### Initial Dispatch and Response Mode Determination

All EMS Units will initially respond EMERGENCY to an incident until an EMD Determinant is reached. The 9-1-1 Dispatcher and the Sunstar SSC will advise responding units of any scene safety information, the primary complaint (chest pain, falls, etc) and response mode (emergency vs. downgraded emergency). Patient’s age, sex, conscious and breathing status may also be relayed as time permits and when appropriate.

The EMD will document additional information obtained during the caller interrogation (medical, scene safety, infection control precautions) in the call notes and will update the response configuration and response mode when the EMD Determinant has been established. The 911 Dispatcher and the Sunstar SSC will advise the responding units of the response determinant over the assigned radio tactical channels or via Mobile Communications Terminal (MCT). Units will alter their response upon receipt of the determinant via radio or MCT message.

### Response Mode Coordination

Upon receipt of the response information, First Responder and Ambulance units will monitor and utilize the working Fire Tactical Channel as assigned during response and on-scene operations and will promptly acknowledge upgrades, downgrades, cancellations and requests for locations or estimated time of arrival (ETA). The first arriving ALS (First Responder or Ambulance) unit will
advise “On-Scene” and “At Patient” on the working Fire Tactical Channel. BLS Units will advise “On-Scene” and “At-Patient” when they arrive before any ALS unit.

The first arriving ALS or BLS unit shall assess the condition of the patient(s) and scene and rapidly advise other responding units to upgrade or downgrade and request any additional resources needed. The first ALS Unit may cancel other responding units as appropriate after patient assessment. A BLS unit or a law enforcement officer on scene may downgraded, but cannot cancel the nearest ALS Unit. At least one licensed/permited ALS Unit (or BLS Unit with a County Certified paramedic) must arrive to evaluate all patients.

If the Ambulance is the first ALS unit to reach the scene of a motor vehicle crash with all patients refusing EMS evaluation and transport, the Ambulance will downgrade the incoming First Responders and complete the refusal documentation. The Ambulance will not cancel the First Responders. First Responders will continue in non-emergency, await law enforcement, and perform hazard assessment and abatement as necessary. The Ambulance will go available when refusals are completed and scene is turned over to First Responders. If multiple First Responder units are enroute to the scene, First Responders will use their discretion to cancel other incoming First Response units as appropriate, as long as one First Responder unit continues to the scene.

Sunstar SSCs shall advise ambulance units when they are being assigned as a closer unit at the time of dispatch. When an ambulance is advised that they are being dispatched as a “Closer Unit,” they will immediately come up on the Fire Tactical Channel using their portable radio and advise the First Responder unit that they are responding as a closer unit, their response mode, and location/ETA.

When responding with the First Responder to a fire incident, Ambulances are to respond non-emergency unless requested emergency by the incident commander or pre-arrival information indicates possible or known patients at the scene. Ambulances will not prompt Command for an assignment or staging location.

**Staging**

When responding to volatile, violent or unsecured incidents requiring staging, First Responder or Ambulance units will respond emergency to the staging location unless their ETA to the staging location is less than five minutes; or another ALS unit has arrived at the staging location; or the call has been downgraded by EMD. If the scene is cleared by law enforcement while enroute non-emergency, the unit may then upgrade if necessary.

**Units Self-Altering Response Mode**

First Responders, Ambulances, and other Pinellas County EMS System personnel responding to requests for assistance may deviate (upgrade or downgrade) from the response determinant at their discretion as conditions dictate (i.e. staging, scene hazards, weather, heavy traffic, or additional...
patient information). All response mode deviations will be relayed to the appropriate 9-1-1 working tactical dispatcher and documented in the “notes” of the call. This is a mandatory reporting requirement. First Responder and Ambulance Units may not order the upgrade or downgrade of any other responding units until they are physically with the patient and completed a primary patient assessment.

Cancellation Enroute

A Pinellas County EMS unit must continue to the scene of every 911 request for service and determine the need for EMS first hand. An EMS response shall not be cancelled by the general public or law enforcement.

“Unfounded” Incidents

“Unfounded” Incidents shall be investigated with the highest degree of diligence (i.e. thorough search of the reported incident location and perimeter, forced entry consideration, call back attempts to the location by either the Sunstar Communications Center or 9-1-1, confirmation of CAD information, etc.). The first arriving EMS unit at the dispatched scene location will advise 9-1-1 or the Sunstar Communications Center of all efforts made to locate the patient and reason for cancellation of EMS units as applicable.

Calls to 911 Requesting Services Other Than an Emergency Medical System Response

a. “Request for Information” - Medical Related

The EMD will process the incident with the MPDS. If the caller refuses EMS response, the EMD may advise the caller of other options (ER, immediate care clinic, call their physician, etc). EMD will document all information in CAD. EMD’s may not give patient care instructions outside of the MPDS protocols, or above a BLS level of care (stingray treatment with hot water, bleeding control, etc. are acceptable, but, medication administration is not.)


c. Request for Directions

If a caller is requesting directions to a care facility, the EMD will provide the caller with the option of an EMS response to their vehicle if they will stop. If the caller refuses to stop, EMD may give the requested information to the caller. EMD will document all information in CAD.
AD2 Ambulance Requests on a Non-Emergency Line

Purpose

To establish a procedure to ensure that the appropriate resources are dispatched in the appropriate response to requests for assistance received by the Pinellas County EMS System on the 7-digit non-emergency line.

Description

The Pinellas County EMS System responds to a large number of requests for emergency and non-emergency medical assistance every day. To ensure that all requests receive a consistent determination of appropriate response assignment, gathering of information to relay to responders, and pre-arrival medical instructions, a comprehensive and pre-determined system of call classification and triage is necessary.

Definitions

(1) “Patient Transfer” is a request for service where the patient does not have a medical or traumatic chief complaint, but an Ambulance is needed to facilitate transport between hospitals, physicians’ offices, and nursing homes. There is no anticipated EMS care intervention other than general assessment for the duration of the call. The MPDS is not utilized for this classification of request.

(2) “Medical Professional” is a licensed health care worker that is with the patient and will remain with the patient until arrival of EMS. This classification includes: LPN, RN, ARNP, PA-C, and Medical Physician.

Policy

General Guidance

Sunstar Communications Staff who answer calls on the non-emergency line will upgrade to a normal 911 system response and ship the call to the 911 Dispatcher anytime there is uncertainty regarding the appropriate response and when there is an identified patient who does not fall into one of the categories below.

Establishing Response Priority Codes
Sunstar Communications Staff will code requests for service using the following Response Priority Codes:

<table>
<thead>
<tr>
<th>Priority</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Priority 1</td>
<td>Emergency Request</td>
</tr>
<tr>
<td>Priority 2</td>
<td>Downgraded Emergency Request</td>
</tr>
<tr>
<td>Priority 3 and 4</td>
<td>ALS Non-Emergency Request (Unscheduled and Scheduled)</td>
</tr>
<tr>
<td>TBD</td>
<td>BLS Non-Emergency Request (Unscheduled and Scheduled)</td>
</tr>
<tr>
<td>Priority 5</td>
<td>Omega/Hold Call</td>
</tr>
<tr>
<td>Priority 6 and 8</td>
<td>Long Distance Transfer – (Unscheduled and Scheduled)</td>
</tr>
<tr>
<td>Priority 7</td>
<td>Critical Care Transport</td>
</tr>
<tr>
<td>Priority 10</td>
<td>Mental Health Transport</td>
</tr>
</tbody>
</table>

**Establishing Acuity Levels for Interfacility Transfers**

<table>
<thead>
<tr>
<th>Acuity Level</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acuity Level I</td>
<td>Requires specialized equipment, personnel, or resources (CCT, CCP, etc.) (Reference CCT MOM AP1, CT2)</td>
</tr>
<tr>
<td>Acuity Level II</td>
<td>ALS Ambulance</td>
</tr>
<tr>
<td>Acuity Level III</td>
<td>BLS Ambulance</td>
</tr>
</tbody>
</table>

**General Public calling party and Patient with a Chief Complaint**

All calls received on the 7-digit non-emergency line from the general public in which a chief complaint or priority symptom is identified will be processed as if they were received on the 911 line and assigned as Priority 1 or Priority 2. (Reference AD 1)

**Interfacility Transfers--Acute Care Hospital to Acute Care Hospital**

Calls received on the 7-digit non-emergency line from medical professionals who are in attendance with the patient at an acute care hospital and are requesting an interfacility transfer to another acute care hospital, will initially be processed using MPDS. If a potential Critical Care Team transport is requested the Sunstar Communication Center Staff will refer to Protocol AP3 and CT2 from the Critical Care Transport volume of the Pinellas County EMS Medical Operations Manual to determine the appropriate ambulance type to assign to the call. (Acuity Level I or II)
Interfacility Transfers to a higher level of care (excluding acute care to acute care)

Calls received on the 7-digit non-emergency line from medical professionals who are in attendance with the patient at a residential or non-acute care facility and requesting an interfacility transfer to a higher level of care will initially be processed using MPDS. If a Charlie or Delta determinant is assigned or a chief complaint or priority symptom is identified that prompts processing using another card, the call will be shipped to the 911 Dispatcher for full system response (Priority 1) (Reference AD 1).

Once EMD has been completed and the EMD determinant level is an Alpha level response the incident should be coded as a Priority-3 response, with only an ambulance being assigned to the incident. (Acuity Level II)

Interfacility Transfers to a Lower Level of Care, Discharges, and Other Routine Patient Transfers

Calls from staff at a medical facility for transfer to a lower level of care (Hospital discharge to a nursing facility, dialysis appointment, wound care treatment, doctors appointment etc.) do not fall under a category of "Chief Complaint" and are not required to be processed using the MPDS. Calls may be assigned an acuity level (I, II, or III) based upon needed resources. If all criteria in AD5 are met, a Mental Health Transport Unit may be dispatched in place of an ambulance.

Law Enforcement Requests For Non-Emergency Response

All calls received on the 7-digit non-emergency line from law enforcement in which a chief complaint or priority symptom is identified will be processed as if they were received on the 911 line and assigned as Priority 1 or Priority 2. (Reference AD 1)

Requests from Law Enforcement Agencies for non-emergency transport (Baker Act, sick person, “routine transport”) with Law Enforcement on scene may be coded as Priority 3 and not shipped to 911 Dispatchers. Sunstar Communications Staff (must be EMD) will employ the MPDS to assign an appropriate determinant to the incident. The EMD may use discretion to upgrade call to Priority 1 or Priority 2 and ship to 9-1-1 due to lack of patient information and/or no confirmation that Law Enforcement will remain with the patient until the arrival of EMS.
AD3 Poison Information Center Consultation

Purpose

To establish the procedure for Emergency Medical Dispatchers to handle consultations and transfers between the Pinellas County EMS System and the Florida Poison Information Center - Tampa (Poison Center).

Description

The Pinellas County EMS System and the Florida Poison Information Center – Tampa are obligated to work cooperatively to minimize the impact of poisonings and overdoses on our community. This policy describes the ways in which the Pinellas County EMS System will access the Poison Center’s resources.

Policy

**Emergency Medical Dispatchers**

Emergency Medical Dispatchers (EMDs) will process all calls to 911 and the seven digit non-emergency number for patients experiencing overdoses and poisonings utilizing the Medical Priority Dispatch System (MPDS) and other established protocols (Reference AD1 and AD2). After completing call classification, dispatching, and giving appropriate Post Dispatch Instructions, EMD’s may elect to contact Poison Center to obtain further information regarding the case for relay to responding units.

EMD's may conference a caller with the Poison Center to assist in determining the need for an EMS response only if the patient is *asymptomatic, the exposure was unintentional, and the 23-Ω-1 determinant is reached*. The EMD must remain on the line to initiate an EMS response as recommended by the Poison Center.

EMD's may transfer a call to the Poison Center without initiating an EMS response only if the caller is seeking information about a medication or poisoning and there has been *no ingestion*. EMDs will verify the address transfer the call to Poison Control and may disconnect the line.

**Pinellas County Certified Professionals**

Pinellas County Certified Clinicians may consult the Poison Center to obtain information regarding a case only after consultation with the OLMC Physician. Every effort should be made to conference the Clinician, the OLMC Physician, and the Poison Center on a single line to ensure common understanding of a situation and continuity of care.
Medical Direction Standing Orders for Consultation

From time to time, the Pinellas County EMS Medical Director may initiate automatic or standing consultation to the Poison Center to assist in the management and investigation of cases deemed associated with threats to public health, large scale gatherings, mass casualty incidents, or other significant events. Such consultations may be initiated using an automated system.
AD4 MPDS Local Options

Purpose

To define the local options authorized for use with the Medical Priority Dispatch System (MPDS).

Description

The Pinellas County EMS System Processes calls for service using the MPDS System. Certain protocols within the system allow for local EMS Medical Director to specify options. Additionally, the local EMS Medical Director may alter specific parts of the system as deemed necessary. This directive applies only to call processing/dispatching and not to care provided at a patient’s side.

Policy

Protocol 9 Cardiac or Respiratory Arrest/Death

The following criteria are authorized to be defined as “Obvious Death”:

- Cold and Stiff in a warm environment
- Decapitation
- Decomposition
- Incineration
- Non-Recent Death (6 hours or more)
- Severe Injuries obviously incompatible with life

The following criteria are authorized to be defined as “Expected Death”. Note that Pinellas County EMS responds on all Expected Death calls (Reference AD1):

- Terminal Illness
- Do Not Resuscitate Order (DNR)

The “C Only – Continuous compressions until responder arrival” as the “Cardiac Arrest Pathway” is authorized.

ASA Aspirin Diagnostic and Instructions

Aspirin Administration is authorized in patients presenting to EMS with chest pain or heart attack symptoms per MPDS criteria.

Aspirin (ASA) is the only approved medication for the EMD to advise to be administered. The other medications listed on the “Aspirin-Containing Medication” list found in the “Additional Information (AI)” section of the “Aspirin Diagnostics and Instructions” are not approved for use.

Protocol 24 Pregnancy/Childbirth/Miscarriage

The “OMEGA Referral” for “Waters Broken” is NOT authorized. Pinellas County EMS responds on all Pregnancy/Childbirth/Miscarriage calls.
In the case if 1st trimester miscarriage (ONLY), the instruction found on Panels F-40 and G-1a to; "Tie a string (shoelace) tightly around the umbilical cord, about 6 inches (15 cm) from the baby. “Do Not cut it” is NOT to be read to the caller.

The HIGH RISK Complications List found in the Additional Information (AI) section under Protocol 24 has been authorized by Medical Control in its entirety and may be revised as is deemed necessary and medically prudent.

Protocol 28 Stroke (CVA)

4.5 hours is authorized as the amount of time for the “Stroke Treatment Window”.

Stroke Diagnostic Tool

The Stroke Diagnostic Tool is to be used only after the SEND point has been reached and sent, by ProQA or only after an EMD determinant has been reached and sent via use of the card set (post dispatch).

MPDS Tourniquet Instruction

The EMD Case Exit instruction found on Panel X-5 “(Extremities) Do not use a tourniquet” is NOT to be read to the caller.

Instructions for the Use of Naloxone (Narcan)

The presence of Naloxone (Narcan) is NOT to be solicited by the EMD. The instruction for administration of Naloxone is only to be offered when the caller volunteers that they have Naloxone available on scene.
AD5 Mental Health Transport Unit

Purpose

To enable the use of a specialized Mental Health Transport Unit for interfacility transportation of individuals not requiring acute medical care.

Description

The Pinellas County EMS System has identified a need to provide specialized transportation options to mental health clients who have been medically cleared for transport to an appropriate receiving facility for further mental health examination and treatment. This policy establishes the criteria for the appropriate and safe utilization of such specialized transportation.

Definitions

(1) "Mental Health Client" means an individual who is voluntarily or involuntarily protected in accordance with the Florida Mental Health Law (Baker Act), Chapter 394, Florida Statutes, and requires transportation to or from a Health Care Facility.

(2) "Mental Health Transport Driver" or "MHT Driver" means any person who is specially trained and certified for Mental Health transport, and who is County Certified to perform such services.

Policy

Criteria for Utilization

To be considered a Client rather than a patient and be eligible for transport by the Mental Health Transport Unit all of the following criteria must be met:

1. Transport is from a hospital to Mental Health Receiving Facility or between two Mental Health Receiving facilities within Pinellas or adjoining counties.

2. Individual has been medically cleared by a physician to be transported as a mental health client rather than as a patient and there is no expected requirement for oxygen, restraints, or other medical care during transport, and the physician (or RN authorized by the physician) has signed the required EMS Transfer Form.

3. Client is ambulatory without restriction (able to walk to and from transport unit without assistance).

4. Client has not exhibiting current or recent violent behavior and is not high risk for elopement.
Safety Precautions

The safety of both the client and the MHT Driver is the highest priority. The following precautions will be observed at all time when dispatching and performing Mental Health Transports:

1. The EMD and the MHT Driver will independently verify that the client meets criteria as above.
2. If the MHT Driver, during the process of assessing or transferring the client, deems the transfer by MHT would be unsafe, they may stop the transport and require the client be transported by ambulance. The MHT Driver will notify dispatch and their supervisor.
3. Only one client may be inside a unit at a time.
4. The client must have been determined to not be in possession of any weapons and all of the client’s belongings must be transported in a separate compartment of the MHT Unit.
5. The MHT Driver will obtain the assistance of staff from the sending and receiving facilities during transfer between vehicle and facility to ensure the safety of both the client and the MHT Driver.
6. If at any time the client requires medical assistance, threatens or becomes violent, attempts to harm themselves, or attempts to escape, the MHT Driver will immediately call for assistance on the appropriate radio channel or depress their emergency ("Code H") radio button.
7. If a client becomes violent, the MHT Driver will remain in the cab of the vehicle and utilize verbal de-escalation techniques, unless the MHT driver determines that physical restraint is warranted and is safe to be performed by one person. (Ex. pediatric patients and/or the frail elderly).
8. If a Client escapes, the MHT Driver will follow the Client at a safe distance and not attempt physical confrontation without assistance, unless the MHT driver determines that physical restraint is warranted and is safe to be performed by one person.
9. If a Client requires medical assistance, the MHT Driver will render first aid and/or cardiopulmonary resuscitation (CPR) until EMS arrives on scene, if the MHT Driver determines that it is safe to do so.
The purpose of this protocol is to describe the proper inventory, accounting, disposal and record keeping for controlled substances, non-controlled medications, fluids and disposable EMS supplies within the ambulance contractor portion of system operations (Sunstar ambulances, CCT, SWAT and Sunstar warehouse facility).

Description:

I. Sunstar Warehouse Facility

A. Distribution and Inventory Control of Controlled Substances:

1. At the beginning and end of each work shift:
   a) A count of all controlled substance boxes and the Valium contained within the Nerve Agent Antidote Kits (NAAKs) located in the narcotic cabinet, as well as those issued to the ambulance units, shall be completed.
   b) The total count shall be entered in the Daily Narcotic Box Inventory Log along with the date, time, and signature of the person completing the count. Any discrepancies must be noted in the daily logbook. Report any discrepancies to the materials supervisor and the service director.
   c) Errors or discrepancies in the Daily Narcotic Box Inventory Log that would present a question of abuse, misuse or integrity shall be reported immediately to the EMS Medical Director.
   d) Logging procedures shall be conducted by the individual responsible for drug security. The log shall have consecutively and permanently numbered pages.
   e) The written log is to be maintained for at least two (2) years from the date of the last recorded entry. The written log will be maintained in the materials management warehouse. The written log shall be maintained separately from all other records of the provider.

2. Each controlled substance utilized in day to day operations (ex. pain management) shall be affixed to an EMS CONTROLLED SUBSTANCE CARD as system supply is needed with the following information:
   a) Control Number
   b) Expiration Date
   c) Lot Number

3. Whenever an item is issued to a Fire Department, the authorized FD representative will sign the materials master controlled substance logbook identifying the items being issued as well as the items being replaced.
4. An EMS CONTROLLED SUBSTANCE CARD must be completed and returned by the Sunstar or Fire Paramedic in all cases of full administration of the medication, partial administration of the medication or when the vial is fully aspirated by the Paramedic and no medication is administered resulting in a full wastage.

5. The materials management supervisor or designee will be responsible for obtaining the appropriate signature and DEA number of the physician who authorized the usage of the controlled substance.

6. If an EMS CONTROLLED SUBSTANCE CARD is lost, a duplicate will be issued with the original information listed.

7. All controlled substances will be physically examined for expiration dates on a monthly basis. Inventory will be rotated, on a FIFO (First In First Out) method moving the oldest dated product closest to the end user. Items will be removed and replaced thirty days prior to the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire the end of the month that is listed.

8. All controlled substances that are removed thirty days prior to the expiration date will be returned to the materials warehouse along with the corresponding EMS CONTROLLED SUBSTANCE CARD for an exchange. The expired item(s) will be forwarded to the DEA for destruction. DEA Form 41, Inventory of Drugs Surrendered, will be completed by materials and signed by the Medical Director.

9. A detailed incident report (IR) will be completed in all instances in which a controlled substance is lost, stolen, broken or when the vial is fully aspirated by the Paramedic and no medication is administered resulting in a full wastage. The incident report along with the EMS CONTROLLED SUBSTANCE CARD, if available, is to be forwarded to the EMS Medical Director for review.

10. Lost or stolen items will also be documented on a police report as well as DEA Form 106, Report of Theft or Loss of Controlled Substances. The item will be replaced by materials and the forms forwarded to the EMS Medical Director and the DEA.

11. All backup inventories of controlled substances will be stored in the materials safe. Only the designated supervisory personnel will have access. Inventory will be conducted monthly on a Narcotics Inventory Summary sheet. This inventory may be audited at random by the EMS Medical Director.

12. Emergency requests (non-office hours) by fire departments for replacement controlled substances, utilized in day to day operations, will be handled by the on duty ambulance contractor field supervisor at the request of the fire department EMS Coordinator. The field supervisor will provide a box containing two Morphine and two Diazepam to the fire department unit. The Paramedic assigned to the fire department unit will sign for the controlled substances. The field supervisor will ensure that the materials supervisor or designee is made aware of the issuance to the fire department. The fire department will use the controlled substances provided to them until the materials department reopens. The EMS CONTROLLED SUBSTANCE CARDS from all controlled substances used from the box provided will stay in the box to
be returned to materials. At the time the materials department reopens, the box provided to the fire department is to be returned with all used and unused controlled substances.

13. Every January, the materials supervisor shall supply a list on agency letterhead, to the EMS Medical Director, personnel authorized to handle and properly maintain the controlled substance inventory and associated documentation. Changes may be made to the list at any time with written notification from the materials supervisor to the EMS Medical Director.

B. Fluids, Medications and Disposable EMS Supplies:

1. All items will be stored in a lockable area. This area will be kept locked when not attended by authorized personnel. The warehouse facility shall be secured against unauthorized entry. All IV fluids and medications shall be stored in an area of the establishment that is secured by a locking mechanism and is temperature controlled.

2. All items will be inventory controlled by the computer inventory system in place at the warehouse facility.

3. All items will be physically examined for expiration dates on a monthly basis. Inventory will be rotated on a FIFO method moving the oldest dated product closest to the end user. Items will be removed and replaced thirty days prior to the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire the end of the month that is listed.

4. All items deemed "expired or not usable" shall be kept in the original packages, whenever possible, and placed in separate clearly marked containers. The containers shall be located in a separate location, away from active inventory items, in the lockable supply area. Items identified as “Vendor Credit” shall be independently inventoried and returned to the vendor for credit.

5. Expired medications that credit cannot be obtained from the vendor, shall be inventoried and returned to the vendor for appropriate disposal. **EXPIRED MEDICATIONS ARE NOT TO BE DISPOSED OF BY PLACING IN THE BIOHAZARD CONTAINER.** Expired non-pharmaceutical items shall be made inoperative, disabled or in a condition that someone would not be able to be reused and then disposed of in the normal waste container.

6. Any damaged items removed from inventory that contain "sharps" shall be placed in the sharps safety container for disposal.

II. Sunstar Units

A. Distribution and Inventory Control of Controlled Substances utilized in day to day operations (ex. pain management):

1. When issuing controlled substances to Sunstar Paramedics:
a) Open the box and verify the four drug vials (20 mg total of Morphine Sulfate and 20 mg total of Diazepam (Valium)) along with their corresponding EMS CONTROLLED SUBSTANCE CARDS are present and no damage or tampering is visible.

b) Record the box number on the Equipment Receipt Form and obtain the Paramedic's signature and county ID number.

2. When receiving controlled substances back from Sunstar Paramedics:

a) Open the box and verify the four drug vials (20 mg total of Morphine Sulfate and 20 mg total of Diazepam (Valium)) along with their corresponding EMS CONTROLLED SUBSTANCE CARDS are present. Check for usage, breakage, and tampering.

b) If a controlled substance has been used:

i. Ensure that the EMS CONTROLLED SUBSTANCE CARD for the medication used is present and the information filled out completely (See II. 3.)

ii. Place the box on the out of service shelf in the controlled substance cabinet designated for this purpose. The used box is not to be reissued until items used are replaced.

iii. The materials supervisor or designee will replenish the box and record the usage. After usage is recorded, the box or kit will be placed back into available inventory.

c) Obtain the keys to the box and drug compartment of the ambulance.

3. An EMS CONTROLLED SUBSTANCE CARD must be completed and returned with the following information recorded by the Paramedic on the Sunstar Unit in all cases of full administration of the medication, partial administration of the medication or when the vial is fully aspirated by the Paramedic and no medication is administered resulting in a full wastage:

a) Back of Card

i. Incident

ii. Date used

iii. Time first dose administered

iv. Total dose administered

v. Total dose wasted

vi. Reason for administration

vii. Administered by signature
viii. Administered by EMS ID number

ix. Witness of waste (Signature of RN/MD witnessing waste when the fire department Paramedic has accompanied the patient to the hospital or the Sunstar Paramedic utilizes their controlled substances and the patient has been transported to the hospital. If in the field and the patient is not being transported or care was transferred from the fire unit to the Sunstar unit, with the fire department utilizing their controlled substances, the signature may be one that occurred in the presence of a Paramedic from a separate Pinellas County EMS agency or the agency Paramedic supervisor).

x. MD giving the order (ID of authorizing Physician ex. MD1)

Note: When controlled substances have been administered to the patient in the field and it is anticipated that pain management will be continued during transport to the hospital, the first responder may elect to ride in if the patient is considered unstable or at the request of the ambulance Paramedic. If the first responder Paramedic does not ride in with the patient, the remaining substance shall not be passed onto the ambulance provider’s personnel. The substance may be wasted in the field, witnessed in the presence of a paramedic from a separate Pinellas County EMS agency or the agency Paramedic supervisor. Ambulance personnel must continue the patients’ treatment with their assigned controlled substances including at hospital wastage requirements.

4. Breakage, loss or theft:

a) An incident report must be filled out by the crew describing in detail the facts of the incident.

b) Notify the on-duty field supervisor

c) The controlled substance box, EMS CONTROLLED SUBSTANCE CARDS and remaining medications, if available, along with the incident report will be held in the controlled substance cabinet for the materials supervisor or designee.

d) The materials supervisor or designee will complete the replacement accordingly.

5. All controlled substances will be physically examined for expiration dates on a monthly basis. Inventory will be rotated, on a FIFO (First In First Out) method moving the oldest dated product closest to the end user. Items will be removed and replaced thirty days prior to the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire the end of the month that is listed.

6. A detailed incident report (IR) will be completed in all instances in which a controlled substance vial is fully aspirated by the Paramedic and no medication is administered resulting in a full wastage.

7. The EMS Medical Director or his/her designee or an EMS provider agency may randomly or purposefully meet crews during or following a call for the purpose of obtaining a sample of controlled drug wastage. The wastage sample is subject to drug content testing as an assurance that narcotics are being disposed of appropriately at all times.
8. It is not permitted to switch EMS CONTROLLED SUBSTANCE CARDS or the drugs themselves out of the original box.

9. Controlled substances are to be kept under double lock. Locks are defined as a device that requires a key to open and close or a plastic or metal seal that prevents access without visible disturbance to the seal.

10. Controlled substances shall be in a carrying case that is to be taken to the patient’s side on every incident in which the Sunstar Unit is the first ALS Unit on a scene.

B. Nerve Agent Antidote Kits (NAAKs):

1. Each NAAK contains the following:
   a) Three Mark I autoinjector units
   b) One Diazepam 10 mg autoinjector unit

2. Use of the Diazepam within a NAAK requires the completion of an EMS Controlled Substance card post incident.

3. Breakage, loss or theft of a complete NAAK or the Diazepam within the kit requires the procedure in (II. A. 4. a – d) be completed.

4. The contents of all NAAKs will be visually inspected semi-annually by the materials supervisor or designee. The contents will be inspected for damage, leakage, discoloration and reconfirmation of the expiration date. Each kit will be resealed with an ID tag that has an individual unique number on each tag and does not require any special tools to remove in the event the kit is needed.

5. Each NAAK shall be located on units where it will provide rapid access and will not delay administration of the medication to emergency personnel.

6. Issuance:
   a) Each NAAK shall be presealed with an ID tag that has an individual unique number assigned. The number shall be documented on the Equipment Receipt form upon issuance to the Clinician at the start of the Clinician’s shift.
   b) Each Clinician assigned to a unit will sign for a NAAK.

7. When receiving NAAKs back:
   a) The ID tag number on each NAAK received from the Clinician is to be reconfirmed with the one documented on the Equipment Receipt form. The kit is to be inspected for damage, usage or tampering.

C. Fluids, Medications and Disposable EMS Supplies:
1. All items shall be physically examined for expiration dates on a monthly basis. Inventory will be rotated on a FIFO method moving the oldest dated product closest to the end user. Items will be removed and replaced thirty days prior to the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire the end of the month that is listed.

2. Efforts should be made to leave all items deemed "expired or unusable" in the original packages. Expired or unusable items shall be removed from the vehicle.

3. Any damaged items removed from inventory that contain "sharps" shall be placed in the sharps safety container for disposal.
The purpose of this protocol is to describe the proper inventory, accounting, disposal and record keeping for controlled substances, non-controlled medications, fluids and disposable EMS supplies within the first response contractor portion of system operations (rescue units, fire apparatus, stations and EMS supply warehousing).

Description:

I. Fire Department Administration:

A. Controlled Substances:

1. Each licensed first responder agency shall maintain an “Administrative Controlled Substance Log” to be located at their primary place of administrative business. This log will be used to manage, control and provide a permanent record that documents the presence of, responsibility for and the movement and re-supply of a first response agency’s controlled substances.

2. The Administrative Controlled Substance Log shall be maintained in a written hard copy format. Electronic copies may be used in addition to the hard copy. The written log shall be maintained separately from all other records or journals for at least two (2) years from the date of the last recorded entry. It shall contain, at a minimum, the following data points:

   a) Drug Type
   b) Lot Number
   c) Expiration Date
   d) Issue Date (to the fire unit)
   e) Vehicle Unit Number
   f) Signature and EMS ID number of the county certified agency individual initially receiving the controlled substance (or employee with issuance of the NAAK)
   g) Date drug used, returned to Sunstar Materials (ex. expired drug) or inspected.
   h) Incident Number or new ID tag on a NAAK when the original tag is changed.
   i) Name and EMS ID number of the Paramedic who administered (or who was involved in the occurrence ex. lost, stolen, broken, full aspiration with no use) the drug (or employee for the NAAK). This location will also be for the name of the inspector for the NAAK.
   j) ID Tag (applies to the NAAK only)

3. Errors that would present a question of abuse, misuse or integrity in the Administrative Controlled Substance Log or Station/ALS unit Controlled Substance Log shall be reported immediately to the EMS Medical Director.
4. The controlled substance inventory is to be audited at random by the department’s designated controlled substance representative or the EMS Medical Director or his/her designee.

5. Every January, the agency EMS Coordinator shall supply a list on agency letterhead, to the EMS Medical Director, of all agency personnel authorized to handle and properly maintain the controlled substance inventory and associated documentation. Changes may be made to the list at any time with written notification from the agency EMS Coordinator to the EMS Medical Director.

6. Controlled substances utilized in day to day operations (ex. pain management):

a) A controlled substance and corresponding EMS CONTROLLED SUBSTANCE CARD, received from the Sunstar Materials Warehouse, will be recorded in the Administrative Controlled Substance Log with the information listed in [I. A. 2. a - g].

b) Usage of a controlled substance requires the return of the completed corresponding EMS CONTROLLED SUBSTANCE CARD to Sunstar Materials. In addition, the information listed in [I. A. 2. h - j] shall be documented in the Administrative Controlled Substance Log.

c) A detailed incident report (IR) will be completed in all instances in which a controlled substance is lost, stolen, broken or when the vial is fully aspirated by the Paramedic and no medication is administered resulting in a full wastage. The IR will be signed by the EMS Coordinator and along with the EMS CONTROLLED SUBSTANCE CARD, if available, is to be forwarded to the EMS Medical Director for review via Sunstar Materials. In addition, a recording will be made in the Administrative Controlled Substance Log with the information listed in [I. A. 2. h and j.]

7. Nerve Agent Antidote Kits (NAAKs):

a) Each NAAK contains the following:

i. Three Mark I autoinjector units

ii. One Diazepam 10mg auto injector unit

b) Each Diazepam contained within a NAAK, received from the Sunstar Materials warehouse, will be documented in the Administrative Controlled Substance Log with the information listed in [I. A. 2. i. a, c – g and k].

c) Use of the Diazepam within a NAAK requires the information listed in [I. A. 2. h - k] documented in the Administrative Controlled Substance Log.

d) Use of the Diazepam within a NAAK requires the completion of an EMS Controlled Substance Card post incident. The card is to be returned to Sunstar Materials.
e) A detailed incident report (IR) will be completed in all instances in which a complete NAAK or the Diazepam within the kit is lost, stolen or broken. The IR shall be reviewed and signed by the EMS Coordinator. The IR, along with a completed EMS CONTROLLED SUBSTANCE CARD is to be forwarded to the EMS Medical Director for review via Sunstar Materials. In addition, a recording will be made in the Administrative Controlled Substance Log with the information listed in [I. A. 2. h, i (if applicable), j and k].

f) Kits that are suspect of damage will be opened and inspected by an agency supervisor. Damaged items will be replaced and the agency supervisor with a numbered ID tag will reseal the kit. The ID tag shall be a type that has an individual unique number on each tag and does not require any special tools to remove in the event the kit is needed. Damaged Diazepam is to be returned to Sunstar Materials. The information contained in [I. A. 2. h – j] of the original item is to be completed. A new entry will be made in the Administrative Controlled Substance Log whenever the ID tag is changed containing the information listed in [I. A. 2. a, c – g and k].

g) Replacement of expired Diazepam within the NAAK will be accomplished by returning the item to the Sunstar Materials Warehouse. The information listed in [I. A. 2. h and k] is to be documented in the Administrative Controlled Substance Log. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed.

h) The contents of all NAAKs will be visually inspected semi-annually by an agency supervisor. The contents will be inspected for damage, leakage, discoloration, and reconfirmation of the expiration date. Each kit will be resealed with an ID tag that has an individual unique number on each tag and does not require any special tools to remove in the event the kit is needed. In addition, a recording will be made in the Administrative Controlled Substance Log with the information listed in [I. A. 2. h and j].

B. Fluids, Medications and Disposable EMS Supplies -- For any fire department that stores items in a central area to be distributed to the various stations, the following applies:

1. All items will be stored in a lockable area. This area will be kept locked when not attended by authorized personnel. The warehouse facility shall be secured against unauthorized entry.

2. All IV fluids and medications shall be in an area that is temperature controlled.

3. All items will be part of an inventory control system as set up by the individual department. Completed supply requisitions from Sunstar Materials will be kept on file for a period of not less than two (2) years,

4. All items will be physically examined for expiration dates on a monthly basis (See I. A. 6. h. for the procedure on checking the expiration dates on the NAAKs). Normal inventory will be rotated on a FIFO (First In First Out) method moving the oldest dated products closest to the end user. Items will be removed and replaced thirty days (30) prior to the expir-
ation date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed.

5. Efforts should be made to leave all items deemed "expired or unusable" in the original packages. Expired or unusable items shall be placed in separate clearly marked containers. The containers shall be located in a separate place, away from active inventory items, in a lockable area.

6. All expired or unusable items shall be independently inventoried and documented on the Sunstar Expired/Return for Credit Form and returned to the Sunstar Materials Warehouse. **EXPIRED MEDICATIONS ARE NOT TO BE DISPOSED OF BY PLACING IN THE BIOHAZARD CONTAINER.**

7. Any damaged items removed from inventory that contain "sharps" shall be placed in a proper sharps disposal container for disposal.

II. Fire Department Stations and Vehicles:

A. CONTROLLED SUBSTANCES

1. Each individual fire station or ALS unit shall maintain a separate and distinct "Controlled Substance Log" utilizing the following procedures:

a) The Controlled Substance Log shall be a hardbound journal with **consecutively and permanently numbered pages**

b) Any errors made in the log, or any pages discovered missing, shall be reported immediately to the shift supervisor and EMS Coordinator.

c) The written Controlled Substance Log shall be maintained separately from all other records or journals for at least two (2) years from the date of the last recorded entry.

d) **Special Note:** Fire departments with only **one station** combined administratively, may consolidate the documentation activities into one "Administrative Controlled Substance Log".

e) Controlled substances that are delivered to a Paramedic, in which the Paramedic did not initially sign for the controlled substances from the EMS Coordinator, are to be documented in the station or ALS unit Controlled Substance Log with the signature of both the Paramedic who received the controlled substances and the individual who delivered the controlled substance.

2. Controlled substances utilized in day to day operations shall be stored under double lock with one of the locks being a lockable compartment, that shall be kept in a "locked condition" until the compartment must be accessed for the purposes of inventory or emergency scenes. Only Paramedic personnel will have access to the controlled substance item(s) utilized in day-to-day operations.
3. Controlled substances shall be in a carrying case that is to be taken to the patient’s side on every incident in which the first responder unit is the first ALS unit on a scene.

4. When an item is used, the corresponding EMS CONTROLLED SUBSTANCE CARD shall be completed with the following information and submitted to the department EMS Coordinator for documentation and replacement:
   
a) Back of Card
   
i. Incident
   
ii. Date used
   
iii. Time first dose administered
   
iv. Total dose administered
   
v. Total dose wasted
   
vi. Reason for administration
   
 vii. Administered by signature
   
 viii. Administered by EMS ID number
   
 ix. Witness of waste (Signature of RN/MD witnessing waste when the fire department paramedic accompanies the patient to the hospital. If in the field and the patient is not being transported or care was transferred from the fire unit to the Sunstar unit, the signature may be one that occurred in the presence of a Paramedic from a separate Pinellas County EMS agency or the fire agency Paramedic supervisor).
   
x. MD giving the order (ID of the authorizing Physician ex. MD1)

**Note:** When controlled substances have been administered to the patient in the field and it is anticipated that pain management will be continued during transport to the hospital, the first responder may elect to ride in if the patient is considered unstable or at the request of the ambulance Paramedic. If the first responder Paramedic does not ride in with the patient, the remaining substance **shall not** be passed onto the ambulance provider’s personnel. The substance may be wasted in the field, witnessed in the presence of a Paramedic from a separate Pinellas County EMS agency or the agency Paramedic supervisor. Ambulance personnel must continue the patients’ treatment with their assigned controlled substances including at hospital wastage requirements.

5. Each rescue and/or pre-assigned emergency apparatus will have a fixed number of controlled substance items for day to day operations assigned to its inventory, as determined by the department EMS Coordinator and the Medical Director. **At the beginning and end of each work shift, a paramedic assigned to the unit, will inventory the item(s) and their corresponding EMS CONTROLLED SUBSTANCE CARDS.** A recording shall be made in the station
narcotic log detailing the quantity and type of inventoried items. All discrepancies, damaged items and any irregularities shall be recorded and immediately reported to the EMS Coordinator. Controlled substances with dates due to expire within 30 days shall be removed, recorded, and turned in to the EMS Coordinator for replacement. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed. **The Paramedic completing the inventory will sign the narcotic logbook next to the entry.**

6. All lost, damaged, or stolen items shall be reported immediately to the EMS Coordinator and so noted in the log. An incident report along with the corresponding EMS CONTROLLED SUBSTANCE CARD, if available, will be forwarded to the EMS Coordinator.

7. The EMS Medical Director or his/her designee or an EMS provider agency may randomly or purposely meet crews during or following a call for the purpose of obtaining a sample of controlled drug wastage. That wastage sample is subject to drug content testing as an assurance that narcotics are being disposed of appropriately at all times.

B. Fluids, Medications and Disposable EMS Supplies:

1. Each fire station that has storage of medications and fluids for the purpose of restocking the rescue units will store all items in a lockable area that is temperature controlled. This area will be kept in a locked condition until authorized personnel need access. A posted master inventory list will display total quantities to be kept on hand, as determined by the department EMS Coordinator or designee.

2. No less than every two weeks, each station EMS supply storage area will be inventoried for the purpose of restocking.

3. At the start of each work shift, each first responding vehicle and “carry-in” patient care kit will be inventoried. An approved County/State inventory list will be used to maintain the required quantities and types of each item. No less than monthly, all items will be inventoried for the purpose of replacing expired items. Items will be removed and replaced thirty days prior to the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed.

4. Efforts should be made to leave all items deemed “expired or unusable” in the original packages. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed. Expired or unusable items shall be returned to the agencies main warehouse (damaged/opened pharmaceuticals constructed of glass or that contain sharps shall be placed in a proper sharps disposal container). The containers shall be located in a separate place, away from active inventory items, in a lockable area.

5. Under no circumstances are medications or sharps to be disposed of in the trash.

6. Licensed providers shall follow the established inventory and control policies and procedures established by the EMS Authority, EMS Administration and/or as outlined in the then current First Responder contract.

C. Nerve Agent Antidote Kits (NAAKs):
1. Each NAAK shall be located on emergency apparatus where it will provide rapid access and will not delay administration of the medication to emergency personnel.

2. Each emergency vehicle will have a fixed number of NAAKs assigned to its inventory, as determined by the agency EMS Coordinator and the Medical Director.

3. At the beginning of each work shift, the emergency vehicle officer, person in charge on the vehicle or station officer will document the ID tag number of each NAAK and the unit assigned in the Daily Station Log and sign next to the entry. At the end of each shift, the same emergency vehicle officer, person in charge on the vehicle or station officer will re-sign the original entry confirming the ID tag number/s and the unit assigned from the beginning of the shift are still present. Any change in the ID tag during a shift requires a new entry into the Daily Station Log Book.

4. Each NAAK contains the following:
   a) Three Mark I auto injector units
   b) One Diazepam 10mg auto injector unit

5. Each NAAK received from the agency EMS Coordinator will be recorded in the Daily Station Log as follows:
   a) ID Tag
   b) Unit NAAK is assigned

6. A detailed incident report (IR) will be completed in all instances in which a complete NAAK or the Diazepam within the kit is lost, stolen or broken. The IR is to be forwarded to the EMS Coordinator along with any available components of the NAAK.

7. Kits that are suspect of damage will be opened and inspected by an agency supervisor. Damaged items will be replaced and the agency supervisor with a numbered ID tag will reseal the kit. The ID tag shall be a type that has an individual unique number on each tag and does not require any special tools to remove in the event the kit is needed. The new ID Tag is to be recorded in the Daily Station Log.

8. The contents of all NAAKs will be visually inspected semi-annually by an agency supervisor. The contents will be inspected for damage, leakage, discoloration, and reconfirmation of the expiration date. Items that have an expiration date listed as just the month and year (ex. 02/02) expire at the end of the month that is listed. Each kit will be resealed with an ID tag that has an individual unique number on each tag and does not require any special tools to remove in the event the kit is needed. The following will be documented in the Daily Station Log:
   a) Date Inspected
   b) Vehicle Unit Number
c) Old ID Tag

d) New ID Tag

e) Signature of Inspector
AD8 BLOOD PRESSURE SCREENING

Paramedics and EMTs are occasionally requested to provide non-emergency health promotion and screening activities, such as blood sugar assessment. Electrocardiograms (ECGs) are never to be utilized as a component of health promotion and screening activities.

Any significantly abnormal values or symptoms discovered shall result in the individual becoming a patient.
Note that, due to HIPAA concerns, only Fire Department personnel are permitted to file these Medical Reporting forms.

System personnel frequently encounter patients whose medical condition(s) would potentially place their motor vehicle driving capability in question, either immediately and/or in the future. The State of Florida Department of Highway Safety and Motor Vehicles Medical Reporting Form is a mechanism to refer patients whose motor driving capabilities are in question for review and potential revocation of the individual’s driver license.

Conditions which can affect safe driving ability can include both acute conditions and chronic problems. The following conditions are examples of those for which reporting may be appropriate if there is evidence that they have affected safe driving ability: seizure, hypoglycemia, hyperglycemia, syncope, any other condition causing alterations in mental status or level of consciousness, vision or hearing problems, and injuries or chronic musculoskeletal conditions or neurological deficits that restrict necessary range of motion for physical driving skills.

Alcohol and drug intoxication (prescription or recreational) are also reportable via this mechanism, but this reporting is usually handled by law enforcement officials. If you have concerns about a patient with possible alcohol or drug intoxication related driving impairment, summon law enforcement if not already involved.

If there is any question regarding the appropriateness of or need for reporting in individual cases, consult OLMC.

State Law:

Section 322.126 (2), (3), Florida Statutes, provides that "Any physician, person, or agency having knowledge of any licensed driver’s or applicant’s mental or physical disability to drive...is authorized to report such knowledge to the Department of Highway Safety and Motor Vehicles... The reports authorized by this section shall be confidential... No civil or criminal action may be brought against any physician, person, or agency that provides the information required herein."

Form Completion:

The State of Florida Department of Highway Safety and Motor Vehicles Medical Reporting form can be accessed online at: http://www.flhsmv.gov/forms/72190.pdf

The form can either be printed off of the website or completed online and printed off. Either option requires an original signature and mailing to the Department of Motor Vehicles.
Purpose:
The purpose of this protocol is to describe the roles and responsibilities of certified EMTs and Paramedics in the event of a mutual aid request for disasters outside of Pinellas County and to address the utilization of their medical skills for the public good under such extraordinary circumstances.

Description:
The Pinellas County EMS System may from time to time be called upon to provide mutual aid coverage. Such requests may include emergency scene requests just outside our jurisdictional borders as well as throughout Florida and other states. Whenever Pinellas County provider agencies supply BLS or ALS medical coverage at such requests, their medical services remain under the auspices of the Pinellas County EMS Authority, the Medical Control Board, and the Medical Director. Therefore, such medical coverage shall conform to the same standards of care and other procedural requirements of the Pinellas County EMS System.

1 Intent and Scope
a) The Medical Operations Manual (MOM) is a document which delineates the standards of care for the EMS System and describes the method and scope of practice for clinicians working in the System, or assigned special duty through a mutual aid request. The MOM contains Administrative Protocols, Treatment Protocols, Drug Summaries, and a Procedure Manual.

i) Any requests made for our services (i.e. disaster assistance or mutual aid) within the State of Florida shall necessitate our Medical Director contacting the receiving licensed provider’s Medical Director over the issues of standards of care and medical policy.

It is our desire that our Clinicians work under the Pinellas County medical care protocols and directives. However, the receiving provider’s Medical Director may request that you function under his/her license. In this case, you must work with a receiving provider’s Clinician at the same level of authority. Alternatively, you must receive sufficient training on the receiving licensed provider’s Medical Operations Manual (MOM), as well as receive a copy of the procedures for reference in order to work as the Clinician-in-charge.

ii) Any requests made for our services (i.e. disaster assistance or mutual aid) outside the State of Florida shall necessitate that the Pinellas County Medical Director contact the receiving licensed provider’s Medical Director over the issues of standards of care and medical policy. It is our desire that our Clinicians work under the Pinellas County medical care protocols and directives.

However, if the mutual aid provider’s Medical Director requests that you function under his/her license, then you must work with another Clinician at the same level of authority. Alternatively, you must receive sufficient training on the receiv-
ing licensed provider’s Medical Operations Manual, as well as receive a copy of the procedures for reference in order to work as the Clinician-in-charge.

iii) Should such a situation arise just outside the jurisdictional boundaries of Pinellas County where a certified Pinellas County Clinician is called upon to participate in patient care in conjunction with another licensed service, the on-duty personnel representing the receiving licensed provider shall have the primary responsibility and should assume the role of Clinician-in-charge, if they are the first arriving provider.

However, if the Clinician representing the mutual aid provider has a lower degree of medical authority (i.e., EMT), then the person with the highest level of clinical authority (Paramedic) is in charge of patient care. This advanced level of care must remain congruent throughout the transportation phase of care.

Should individuals of identical clinical authority be working “side-by-side”, those who are representing the receiving provider shall be considered to assume the role of Clinician-in-charge, unless the provider’s Medical Director determines differently.

2 Use of Controlled Substances

a) Pinellas County Certified Paramedics shall follow the Pinellas County MOM (more notably Protocol AD6 and AD7) for the administration of controlled substances used from Pinellas County. Due to the nature of the circumstances placed upon your delivery of service, OLMC will not be required to approve the administration of controlled substances.

**Extremely prudent use of narcotics is authorized.** Examples of prudent use of Morphine would be severe pain (other than abdominal), chest pain unresponsive to nitroglycerin, pre-sedation for intubation and pacing, and pulmonary edema management. *(Remember that re-supply may be difficult).* Proper documentation must be made and a copy of the patient care record must be retained for QA purposes upon your return to Pinellas County.

b) Controlled substances used from the Pinellas County EMS system must be witnessed by at least two Clinicians.

c) Controlled substances issued by the receiving provider must follow the protocols in place for that jurisdiction.

3 Patient Care Documentation

a) The Clinician with the highest level of clinical authority (Paramedic) is responsible for starting and completing a patient care reports (PCR). He/she is also responsible for initiating and/or completing any other reporting requirements outlined in the Medical Operations Manual, or requested by the receiving Medical Director. The only exception to this requirement would be the scene environment or the severity of the patient(s) being treated in which the first paramedic in attendance of the patient may delegate the initiation of the PCR and other reporting requirements to an EMT.

b) If patient care is transferred to another unit, **PCR completion** and any other documents, including electrocardiograms, initiated by the Clinician with the highest level of clinical authority should be transferred to the clinician continuing patient
care during transport. If, based upon the patient’s severity and continued care delivery methods, the first Clinician elects not to ride in the ambulance, a complete verbal report must be provided to the transport Paramedic. The transport of critically ill or critically injured patient(s) must not be delayed for report completion.

4 Communications

Radio communications provided or used during a mutual aid incident shall allow ambulance and first response crews to talk among themselves, and with in-coming units, dispatchers and medical direction without recurring significant interference from other calls and without impediment to the dispatching of other calls. Frequencies should be available for communications on so-called standard "mutual aid" frequencies that may be needed in the event of incidents involving multi-casualty and disaster operations.

5 Ambulances / ALS Rescues and Engines

All ambulances or ALS rescues and Engines requested for mutual aid from Pinellas County shall carry, at all times and at a minimum, the equipment specified on the most current pertinent inspection lists from the State, the Authority, and the system Medical Director. Any clinical equipment not on these lists shall have specific prior approval from the Medical Director.

If our system is provided sufficient notification and time for ample preparation, a double set of expendable items and pharmaceuticals is authorized because of re-supply problems that may be encountered.

6 Agency Reporting Requirements

Upon the agency’s return to Pinellas County, a report shall be submitted to the EMS Medical Director within 30 days to include the following information:

a) Controlled substances cards and copies of all PCRs in which controlled substances have been utilized.
AD11 NEWBORN BABIES SURRENDERED AT FIRE / EMS STATIONS

Newborn babies (up to 7 days old) may be abandoned by a parent at Fire/EMS Stations.

Treatment of Surrendered Newborn Infants

Florida Statues Chapter 383 allows a parent to leave a newborn infant (7 days old or younger) at a Fire or EMS Station. Each Fire/EMS Station shall accept any newborn infant left with a Firefighter, EMT, or Paramedic. The Paramedic/EMT shall consider this action as implied consent to and will assess, treat and arrange for transport of the newborn infant by Ambulance to the nearest hospital having emergency services following all standard protocols.

Except when there is actual or suspected child abuse or neglect, any parent who leaves a newborn infant at a Fire/EMS Station has the absolute right to remain anonymous and to leave at any time and may not be pursued or followed unless the parent seeks to reclaim the newborn infant.

Requirements

1. A neonate presented to a Fire Station or EMS shall be evaluated, provided treatment and transported to the closest Hospital Emergency Department by Ambulance under implied consent.
2. Document all information on the Patient Care Report
3. If the neonate would benefit from a hospital other than the closest facility, contact Online Medical Control.
4. Refer to Treatment Protocol P12 Neonatal Resuscitation.
Purpose:
The purpose of this protocol is to ensure protection of all emergency services personnel responding to a violent, or possibly violent, incident.

Description:
1. Responding to Possible Violence:
   a. While enroute to a call where violence exists or is a possibility, check with Dispatch to see whether police agencies are also enroute to the scene. You may be advised by Dispatch to consider staging.
   b. In situations where law enforcement agencies have indicated the need for other responding public safety agency units to stage:
      i. The information will be forwarded to Central Dispatch and the Sunstar Communications Center.
      ii. The first arriving unit shall coordinate the staging location.
      iii. Upon making the decision to stage, they will immediately notify appropriate dispatch – decision to stage, location and recommended access route
      iv. While still a few blocks away from the area, all responding units shall:
         • Turn off emergency lights and siren.
         • Advise Central Dispatch of a safe approach to the area for all other incoming emergency responders.
         • Upon notification of a staging situation, all units shall downgrade to non-emergency response unless notified differently.
      v. Routinely park out of sight of the scene location or safely outside the Danger Zone (an area about 120 degrees in front of the scene that is normally partially exposed).
      vi. A request will be made for clearance from the law enforcement agency before entering the scene. Once law enforcement agencies have stabilized the area, emergency units may enter the scene with caution. DO NOT ENTER A VIOLENT INCIDENT AREA WITHOUT FIRST HAVING RECEIVED THE GO-AHEAD BY THE LAW ENFORCEMENT AGENCY SECURING THE AREA.
   c. If the decision to stage has been made and law enforcement agencies are not on the scene:
      i. Request a law enforcement agency estimated time of arrival (ETA) from Central Dispatch.
      ii. Consider Central Dispatch updates. You may use your discretion to determine whether to enter the scene before the law enforcement agencies arrive.
2. Encountering Scene Violence:

a. Upon the arrival at the scene of a medical emergency, the Clinician(s) should assess the condition of and promptly treat any sick or injured person unless the health or safety of the Clinician(s) is jeopardized.

b. If you find an unanticipated violent situation, advise Central Dispatch of your location address. Also advise Central Dispatch of safe approach to the area for all other incoming emergency responders.

c. If you find a violent situation and law enforcement agencies have not been called, advise Central Dispatch of your need for law enforcement's assistance and request the law enforcement agency's ETA and frequent updates from Central Dispatch before taking further action. Utilize the appropriate help procedures as identified by the different agencies. Once law enforcement agencies have stabilized the area, emergency units may enter the scene with caution.
AD13 WHEELCHAIR TRANSPORT PROTOCOL

Purpose:

The purpose of this protocol is to describe the circumstances where Wheelchair Transport (WCT) Providers may be used to transport clients and to define when a client becomes a patient. The foremost concern in all circumstances is the welfare of the client, which is best served by the involvement of EMS whenever the criteria of being a “patient” are met.

Description:

1. Clients may be transported by Wheelchair Transport Providers under the following conditions:

a. Any transport with the destination being the client’s residence. The residence may be a private home, an Adult Congregate Living Facility or a Nursing Home.

b. Any transport with a non-medical destination (social or recreational activities, etc.).

c. Any transport with the destination being a doctor’s office, a clinic, dialysis center or out-patient treatment center, provided the client does not meet any criteria that causes them to be classified as a patient

d. Any transport with the destination being a hospital unit or ward excluding the Emergency Department, Critical Care or Telemetry Units. It is presumed that the client is a patient if they are being transported to an Emergency Department or a unit that provides critical care services. However, clients may be transported to an Emergency Department for non-emergency treatment such as suture removal, foley catheter checks, peg tube checks, shunt checks, etc.

e. Any positive or colonized MRSA (Methicillin Resistant Staphylococcus Aureus) infection of the blood, urine, feces, and simple wounds. However, the transportation provider must have infection control procedures in place that meet state and federal guidelines.

f. Medical Oxygen use by a Client during transport:

i. The WCT Provider shall confirm, either in writing or via a recorded telephone call, that all of the following criteria are met:

• A physician has prescribed the oxygen;
• A physician has determined that the Client is able to be transported safely by Wheelchair Transport unit and transportation by Ambulance is unnecessary;
• The Client knows the appropriate liter flow and device prescribed;
• The Client has been instructed, by a nurse or physician, in the use of the regulator to be used during transport;
• The Client is able to self administer the oxygen and does so independently
• Oxygen is available at the client’s destination;
• If the Client is being discharged from the hospital, the Client must have been oxygen dependent and self-administering oxygen at their residence prior to the current hospital admission.

Note:
WCT Providers are not licensed to administer oxygen or regulate oxygen flow or dosage pursuant to Chapter 401.23 (7), F.S. and Chapter 499, F.S. Therefore, WCT Providers are strictly prohibited from starting, stopping or adjusting the dosage or method of oxygen delivery.

2. A Client becomes a patient in any of the following circumstances:
   a. Absence or Difficulty Breathing
   b. Absence of a Pulse
   c. Any alteration in the client’s normal Level of Consciousness
   d. Any recent trauma (within six hours)
   e. Any signs of shock (pale, cool or moist skin)
   f. Needs or is likely to need medical attention during transport.
   g. Client requires continuous oxygen and does not own their own self-administered oxygen. Wheelchair transport providers are not licensed to administer oxygen nor regulate oxygen flow or dosage pursuant to F.S. 401. 23 (7) and Chapter 499 F.S.
   h. A request made by the sending agency that additional medical support personnel attend the client’s medical needs during transport (i.e. facility nurse, respiratory tech, etc.).
   i. Any positive MRSA (Methicillin Resistant Staphylococcus Aureus) infection of the respiratory system
   j. Any individual being transported for involuntary or voluntary examination or placement in accordance with the Florida Mental Health Act (Baker Act). Patients meeting these criteria or those experiencing mental health problems may not be transported by a wheelchair transport provider.

3. Clients may be transported using reclining wheelchairs with the following provisions:
   a. An EMT must perform a client assessment prior to transport.
   b. A Pinellas County Certified EMT must be aboard at all times. The EMT does not have to be in attendance with the client, and could double as the driver.
   c. The reclining wheelchair must be raised to an incline of 30 degrees or more.

4. Medical emergencies encountered during transport:
a. Given the above criteria, if a client becomes a patient during transport the driver/attendant will drive the patient to the nearest hospital emergency department if it is within two to three minutes or two to three miles away. If the distance is greater, the driver will summon 9-1-1/EMS via their dispatch center or telephone. The driver/attendant will safely stop the vehicle and render first aid and/or cardiopulmonary resuscitation (CPR) while EMS is responding.

5. Pertinent Client Assessment Forms.

a. Constituent WCT providers, working side by side with the EMS Medical Director, have developed a variety of management information forms. The forms represent a system approach to understanding the services delivered by each provider. The “Client Assessment” form is to serve as a job aid in assisting the attendant to determine the client’s stability prior to WC transportation. Each licensed WCT provider must use these forms during their daily operations:

i. Telephone Assessment Form, when applicable.

ii. Reclining Wheelchair Assessment Form, when applicable

iii. Driver Transport Data Form

iv. Client Assessment Form

v. Medical Incident Report**

vi. Monthly Activity Report

** All Medical Incident Reports are to be submitted to the EMS Medical Director within 72 hours from the date of an occurrence or clinical problem. At the request of the EMS Medical Director any of the required forms may be requested from the provider during an informal or formal investigation.

6. Administrative Regulation.

a. While operating wheelchair transport vehicles, individuals certified as Emergency Medical Technicians and Paramedics are not permitted to wear any insignia that identifies them as an EMT/Paramedic, as they are not working for a licensed EMS provider, FS. 401.27 (13) or on a state permitted ambulance.
AD15 POST EXPOSURE PROPHYLAXIS (PEP)

Pinellas County EMS may use this same procedure to advise law enforcement officers and members of the public assisting fire, EMS, and law enforcement in the performance of their duties should they experience a bloodborne or body fluid exposure. (The costs associated with employee PEP testing may be borne by the employer, employee and/or the non-medical personnel involved.)

EMS goal: Limit time from exposure to PEP consultation (by Hospital or Clinic Physician) to no longer than two hours.

I. Helpful Information for Emergency Workers:

We believe that extra care and attention should always be employed with any “sharp” used during the care of a patient. The potential for these exposures occur:

• During patient extrication at a motor vehicle crash (MVC): Glass fragments and sharp metal objects may penetrate through protective barriers and lacerate the emergency worker.

• During patient assessment at a MVC: Glass fragments are often left on the patient after extrication, posing a risk to the clinician.

• During intubation and management of the combative patient.

• During intramuscular and subcutaneous injections.

The emergency worker should take extra precautions in these areas of patient care management by:

• Developing an acute awareness of the sharp objects at a MVC. Place protective barriers between you and the object.

• Wearing heavy-duty gloves or using a towel when clearing (brushing) glass fragments from the patient.

• Wearing Personal Protective Equipment (PPE) when performing invasive skills or when patient information and/or the situation dictates so.

• Proper handling of sharps.

II. Procedure for Obtaining Source Blood:

The PEP kit has been locally designed to assist the emergency worker or bystander that becomes exposed to bloodborne pathogens. The kit contains blood sampling tubes and a pre-counseling form for the source patient’s consent before EMS can draw their blood for HIV testing. Should an exposure occur:

A. Obtain permission for testing for HIV from source of exposure (patient or source patient/subject). The PEP kit contains this Source Information and Consent Form. (NOTE: No permission is needed for Hepatitis testing.) If permission is given, do brief pre-test counseling per the form in the kit, and obtain signature, name, address, and phone number on the Source Information and Consent Form. Then draw blood, obtaining two red top tubes and two purple
top tubes (found in PEP kit). (CRITICAL NOTE: If possible, draw this blood prior to or during transport of the source patient to the hospital or prior to releasing him/her. This decreases delays in obtaining appropriate testing and counseling.) Blood samples that have been drawn must be labeled with either the patient’s name or the hospital identification number, time of draw, date, the initials of the clinician and county EMS ID number (ID labels located in PEP Kit).

• NOTE: Included in the PEP kit besides the regular safety style blood tube holder is a blood tube holder with a direct draw adapter. This style blood tube holder is utilized when a patient already has IV access established. The blood tube holder with the direct draw adapter will possibly prevent having to restick the patient for a blood sample. To utilize the blood tube holder with direct draw adapter:

  o Place a tourniquet on the upper extremity that has the IV already placed.

  o Tamponade the vein that the IV catheter is in. Disconnect either the IV extension set or IV tubing from the IV catheter hub.

  o Connect a 10cc syringe to the IV catheter hub and withdraw 10cc of blood and waste in an approved sharps container.

  o Attach the blood tube holder with the direct draw adapter to the IV catheter hub.

  o While securely holding the blood tube holder with direct draw adapter, use the device to obtain two red top tubes and two purple top tubes of blood. After obtaining the blood samples, reattach the IV extension set of IV tubing to the IV catheter hub. If Normal Saline was being used as the IV fluid, open the IV line and infuse approximately 50cc of fluid to clear the IV line and IV catheter of any blood. If the IV access was a reseal, flush the IV extension set and IV catheter with 10cc of 0.9% Sodium Chloride to ensure the IV access does not clot off with residual blood.

  o Dispose of the blood tube holder with direct draw adapter in an approved sharps container.

B. If the source patient has a decreased level of consciousness (LOC) or is otherwise judged via system protocol to not be competent to consent/refuse, the blood sample can be taken under implied consent. The Clinician must document two witness signatures attesting to the patient's incapacity to provide consent on the Source Information and Consent form, should this mechanism be used.

C. If the source patient is competent and refuses to permit blood samples to be drawn and as a result, permission for HIV testing is NOT obtained, the COURT ORDER DOCUMENTATION at the bottom of the SOURCE OF CONTACT CONSENT form in the PEP Kit should be completed with the notation “refused to sign” in the Signature block. This will help facilitate a request to obtain a COURT ORDER for testing. If a COURT ORDER is necessary, a statement has been provided that must be signed by a physician licensed under chapter 458 or chapter 459 attesting to the fact that a significant exposure has occurred and that, in the physician’s medical judgment, testing is medically necessary to determine the course of treatment, constituting probable cause for the issuance of an order by the court. (Note: It is
highly recommended that the physician consult the CDC National Clinicians' Post-Exposure Prophylaxis Hotline at 1-800-448-4911 for assistance in determining significance of the exposure and the most current evaluation and treatment guidelines.) The court order can be obtained by the medical personnel involved or by the employer of such person acting on behalf of the employee. Be aware that the treating physician may recommend starting prophylactic therapy while awaiting the results of the court order process. Further information about this process may be obtained via employer risk management or infection control officers.

NOTE: If the source refuses to give their blood, this does not mean that a PEP consultation should not be done. The consultation is even more important, especially regarding determination of whether a significant exposure has occurred.

III. When an Exposure Occurs:

A. Obtain the source blood sample using the PEP kit. If unable to obtain the source blood, the emergency worker and the source patient should go to the same hospital.

B. Once at the hospital, the Clinician must request and obtain a blood sample from the source patient if they desire Rapid HIV testing from a PEP Hospital or PEP Clinic (Hospital/Clinic offering a Rapid HIV test). If this is not the desire of the Clinician, he/she may have their PEP consultation completed at the source patient’s hospital. If the clinician chooses this option, they are to be registered into the hospital data system as an ED patient. This will provide a formal record of their consultation, including any recommendations for follow-up care.

C. If hospital staff questions the authority for this test, notify OLMC.

D. If a PEP Hospital or PEP Clinic is used, the source patient’s blood must be delivered in person by the exposed Clinician (unless the patient is already at a PEP Hospital). The chain of custody information located on the SOURCE OF CONTACT CONSENT must be used when taking the source blood to a PEP Hospital or PEP Clinic. Upon the arrival at the PEP facility, the Clinician should notify the emergency department charge nurse or clinic staff and request a PEP consultation and rapid HIV testing of the source patient’s blood. If the Clinician chooses this option, they are to be registered into the hospital data system as a patient. This will provide a formal record of their consultation including any recommendations for follow-up care.

E. The actual PEP consultation, lab testing, pre and post counseling, recommended treatment and follow-up care will be initiated by the emergency department and hospital infection control staff or clinic in conjunction with your employer and Worker's Compensation provider. The examining/counseling physician is responsible for determining the significance of the exposure. It is highly recommended that the physician consult the CDC National Clinicians' Post-Exposure Prophylaxis Hotline at 1-888-448-4911 for assistance in determining significance of the exposure and the most current evaluation and treatment guidelines.
F. Any consultation with OLMC is intended to assist in any logistics necessary for testing. These consultations will not determine the significance of the exposure or whether or not the exposed Clinician should be tested.

G. The exposed Clinician should immediately notify their Designated Infection Control Officer (DICO) of the agency, for which they are working at the time of the exposure. They will act as the official agency liaison for infection control information from the Hospital or PEP Clinic regarding lab tests and additional information should it become necessary. Follow-up care should also be coordinated through the designated Infection Control Officer.

H. If a law enforcement officer or bystander has been exposed, blood collection procedures are the same as for EMS exposures. Law enforcement officers should contact their supervisors and/or designated Infection Control Officer for instructions regarding their department policies. Contact OLMC for civilian bystander exposures or if there are any questions about any of these procedures.

IV. Definitions:

A. Rapid HIV Testing: Recommended by the CDC. This test is used for detecting antibody to HIV. It is a screening test that produces very quick results, usually in 5 to 30 minutes. Because most individuals who are tested are not infected, they can receive counseling and learn their HIV exposure status in a single visit. In addition, providing preliminary positive results also increases the number of infected individuals who ultimately learn their infection status and can be referred for education, medical treatment and additional prevention services. Rapid HIV testing is done only on the source patient’s blood. Rapid HIV testing is not done on the exposed Clinician.

B. PEP Hospital: A Pinellas County hospital that offers Rapid HIV testing capability. If the test is negative and the source patient is considered low risk, the exposed person may avoid taking PEP medication. It is highly recommended that the physician consult the CDC National Clinician’s Post-Exposure Prophylaxis Hotline at 1-888-448-4911 for assistance in determining significance of the exposure and the most current evaluation and treatment guidelines.

C. PEP Clinic: A Florida licensed medical clinic located in Pinellas County capable of providing bloodborne pathogen consultation. This facility shall also provide Rapid HIV testing and services that support the emergent needs of EMS. It is highly recommended that the physician consult the CDC National Clinicians’ Post-Exposure Prophylaxis Hotline at 1-888-448-4911 for assistance in determining significance of the exposure and the most current evaluation and treatment guidelines.

D. Non-PEP Hospital: A Pinellas County hospital that does not offer Rapid HIV testing, but will conduct the PEP consultation. In this case, if the exposure is determined to be significant, the Clinician may need to take PEP medications for 2-7 days while waiting for the hospital laboratory to determine whether or not the source patient is HIV positive. It is highly recommended that the physician consult the CDC National Clinicians’ Post-Exposure Prophylaxis
Hotline at 1-888-448-4911 for assistance in determining significance of the exposure and the most current evaluation and treatment guidelines.

E. Chain of possession/chain of custody: A complete record of individuals and/or organizations that have had custody of a sample of the source blood for any period of time or for any purpose.

F. PEP Kit: A complete kit carried on each Pinellas County ALS unit utilized to obtain blood samples in the event of a significant exposure. The kit also contains associated paperwork necessary to obtain testing of blood samples. The kit contains the following:

i. 3 – Red Top Blood Tubes (Note Expiration)

ii. 3 – Purple Top Blood Tubes (Note Expiration)

iii. 4 – Source Patient Blood Tube Labels

iv. 1 – Chain of Custody/Consent Form

v. 1 – Blood Tube Holder/Direct Draw Adapter Combination

vi. 4 – Alcohol Prep Pads

vii. 2 – Vanishpoint Single Use Safety Blood Tube Holders

viii. 2 – Vacutainer Needles or Equivalent (used with the Vanishpoint safety blood tube holder for venipuncture)

ix. 1 – Ziploc style bag for completed blood samples
SOURCE OF CONTACT CONSENT:

EMS: “In trying to help you, a care provider or bystander may have inadvertently exposed themselves to your (blood, saliva, emesis, feces, etc.) by __________________________ (describe mode of possible transmission).”

LEO (Law Enforcement Officer): “I believe I may have been exposed to possible infectious material (describe) in the course of performing my duties.”

EMS/LEO: “I am required by law to ask you a few questions concerning some possible risk factors for contagious diseases.”

1. Do you have HIV/AIDS? □ Yes □ No □ Don’t know
2. Have you ever been tested for HIV? □ Yes □ No
3. If yes, when was the test and what was the result? Date: ________________ Result: ______
4. Do you believe that you have been exposed to HIV? □ Yes □ No
5. Are you monogamous? □ Yes □ No
6. Do you practice safe sex? □ All of the time □ Some of the time □ Never
7. What type of protection do you use? __________________________________________
8. Do you have any history of hepatitis? □ Yes □ No
9. If yes, what type? □ Type A □ Type B □ Type C □ Alcoholic □ Don’t know
10. Have you ever used IV street drugs? (Have you ever “shot up” drugs?) □ Yes □ No

I, (Name of Source or their hospital chart #) __________________________________________, understand that I have been requested to have a test for the Human Immunodeficiency Virus (HIV) and other bloodborne or body fluid infectious diseases, necessary to safeguard the Health Care Worker(s), Law Enforcement Officer(s) or assisting bystander(s) that have been exposed to my blood or other body fluids.

I further understand that the results of this test will be kept confidential. I understand that the exposed person will be informed of those results; however, for testing purposes for a Health Care Worker, Law Enforcement Officer or bystander exposure, the Public Health Authorities will not be informed of my name unless I have given permission.

Furthermore, I have been informed that I may obtain a copy of my blood results from:

Hospital or Clinic Name: _____________________________________________________________
Contact Phone Number: ____________________________________________________________
Telephone number of the source patient: _____________________________________________
Telephone number of Guarantor for billing if not the source patient: ______________________
Source address: __________________________________________________________________

_________________________________________  ________________________________________
Signature DATE AND TIME

Social Security Number DATE OF BIRTH

_________________________________________
Witness
EXPOSED PERSON’S INFORMATION (EMS or LEO):

Name of the exposed: ____________________________________________

Employer: ____________________________________________________

Infection Control Officer (ICO): _________________________________

ICO Contact number: __________________________________________

EXPOSED PERSON’S INFORMATION (CIVILIAN):

Name of the exposed: __________________________________________

Address: _____________________________________________________

Contact phone number(s): ______________________________________

CHAIN OF POSSESSION: (please print)

Blood specimen taken by: ___________________________ Date: ______ Time: ______

Specimen received from: ___________________________ Date: ______ Time: ______

Specimen received by: _____________________________

Specimen received from: ___________________________ Date: ______ Time: ______

Specimen received by: _____________________________

Note: The person delivering the blood sample for (Bloodborne Pathogen testing) testing should normally be the exposed. The chain of possession will document the possession process up to and including its delivery to a testing facility.
COURT ORDER DOCUMENTATION

Agency Incident No: ______________________

I, ________________________________, a physician licensed under Chapter 458 or 459, Florida Statutes, to practice medicine in Florida, have reviewed the circumstances surrounding the occupational exposure of ____________________________, an EMS Health Care worker, law enforcement officer, or the public assisting in the performance of EMS/Law Enforcement duties, who has come into contact with a person (source of contact) in such a way that significant exposure, as defined in Section 381.004, Florida Statutes, has occurred. In my medical judgment, a screening of that person (source of contact) for communicable disease that can be transmitted through a significant exposure, including Acquired Immune Deficiency Syndrome, is necessary to determine the course of treatment for the above named EMS or law enforcement officer, as provided for in Section 384.287(2), Florida Statutes.

EMS/LEO Information

Agency: ________________________________________________

Telephone: ________________________________________________

Address: ________________________________________________

Exposed Civilian Information

Telephone: ________________________________________________

Address: ________________________________________________

________________________________________________________

Physician’s Signature

________________________________________________________

Physician’s Name (print)

________________________________________________________

Phone number
Cervical Immobilization Devices

Chapter 64J-1.002, Table 1, #12, Florida Administrative Code requires the EMS Medical Director to approve the Adult and Pediatric Cervical Immobilization Devices (CID) used in the EMS System. As EMS Medical Director, I authorize the iTec Multi-Grip Head Immobilizer and the MDI Pediatric Vacuum Mattress in Pinellas County.

Burn Sheets

Chapter 64J-1.002, Table 1, #22, Florida Administrative Code requires Burn Sheets. As EMS Medical Director, I authorize substitution of disposable sheets/blankets and/or cotton sheets/blankets in lieu of Burn Sheets from ALS permitted vehicles in Pinellas County.

Rigid Cervical Collars

Chapter 64J-1.002, Table 1, #29, Florida Administrative Code requires the EMS Medical Director to approve in writing the Rigid Cervical Collars used in the EMS System. As EMS Medical Director, I authorize the AMBU “Perfit” adjustable style Rigid Cervical Collar and the AMBU Perfit “Mini-Ace” adjustable style Rigid Cervical Collar in Pinellas County.

Thermal Absorbent Reflective Blanket

Chapter 64J-1.002, Table 1, #34, Florida Administrative Code requires a Thermal Absorbent Reflective Blanket. As EMS Medical Director, I authorize substitution of regular cotton or wool blankets and cotton baby receiving blankets in lieu of Thermal Absorbent Reflective Blankets in Pinellas County.

Disposable Endotracheal Tubes – Uncuffed Below Size 5.5

Chapter 64J-1.003, Table 2, EQUIPMENT (d), Florida Administrative Code requires all endotracheal tubes below size 5.5, be uncuffed. As EMS Medical Director, I authorize substitution of cuffed endotracheal tubes size 3.0 – size 5.0 in lieu of uncuffed endotracheal tubes size 3.0 – size 5.0 in Pinellas County.

Monitoring Electrodes for Adult and Pediatrics

Chapter 64J-1.003, Table 2, EQUIPMENT (q), Florida Administrative Code requires monitoring electrodes for adults and pediatrics. As EMS Medical Director, I authorize the use of Kendall Medi-trace or 3M Red Dot brands of electrodes for adults and pediatrics in Pinellas County.

Dextrose, 50 Percent

Chapter 64J-1.003, Table 2, Ground Vehicle ALS Equipment and Medications 2., Florida Administrative Code requires Dextrose, 50 Percent. As EMS Medical Director, I authorize substitution of Dextrose 10% 250 mL IV Fluid and Level Oral Glucose Gel 15g in lieu of Dextrose 50 Percent in Pinellas County.
The Philips MRx Clinical Configuration is the clinical standard for patient care in Pinellas County EMS. It reflects a standard configuration for ALL Philips MRx devices utilized as a component of patient care under the auspices of Pinellas County EMS. This configuration is not to be altered without prior approval of the EMS Medical Director.

Options

<table>
<thead>
<tr>
<th>pO2</th>
<th>NBP</th>
<th>EtCO2</th>
<th>12-Lead</th>
<th>12-Lead Tx</th>
<th>Pacing</th>
<th>Q-CPR Data</th>
<th>Event Summary Tx</th>
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General Settings

- Institution Name: PINELLAS COUNTY EMS - FIRE (or SUNSTAR)
- Voice Volume: Medium
- Alarm Volume: Medium
- Minimum Alarm Volume: Medium
- QRS Volume: Off
- Time Format: 24 hour
- Pacing on Batteries Warning: No
- Units Display: On
- Patient Category: Adult
- Device Owner: PCEMS - Affiliate
- Return-To Password: XXXX
- One-Second Vitals: Off

HR/ECG Settings

- Auto-Gain: Off
- AC Line Filter: 60 Hz
- ECG Bandwidth for Display: 1 - 30 Hz EMS
- ECG Bandwidth for Printer: 1 - 30 Hz EMS
- ECG Electrode Labels: AAMI
- HR/Arrhythmia Alarms: On
- HR/Pulse High Limit: 140 (Adult), 180 (Pedi)
- HR/Pulse Low Limit: 50 (Adult), 80 (Pedi)
- VTach HR Limit: 120 (Adult), 120 (Pedi)
- VTach Run Limit: 3 (Adult), 3 (Pedi)
- Color: Color: Green

NBP Settings

- NBP Schedule: Manual
- NBP Alarm Source: Systolic
- Unit: mmHg
- NBP Alarms: On
- Systolic High Limit: 200 (Adult), 140 (Pedi)
- Systolic Low Limit: 90 (Adult), 70 (Pedi)
- Diastolic High Limit: 90 (Adult), 70 (Pedi)
- Diastolic Low Limit: 50 (Adult), 40 (Pedi)
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### Pulse Settings

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### Wave Settings

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### Alarm Settings

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### 12-Lead Settings

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ECG Bandwith for 12-Lead Display: .05 - 40 Hz
ECG Bandwith for 12-Lead Report: Same as Display
ECG Report: Sequential
Number of Automatic Printouts: 1
Printer Format: 3 x 4 1R
Rhythm Strip #1: II
Rhythm Strip #2: III
Rhythm Strip #3: aVF
12-Lead Export Format: 1.04
AMI Detection: EMS

Transmission Device Settings
Bluetooth: On
Wireless Link: On
If both on in clinical mode use: Wireless Link

Wireless Link Settings
Access Point: Yes
http Proxy Address:
http Proxy Port:
Wireless Link Address: 192.168.171.2

Phone/Modem Profile Settings
Profile Name:
Configuration String:
Landline:
Dial Prefix:
Dial String:
Wait for Dial Tone: No
User Name/Password Config: Per Profile
PPP User Name:
PPP Password:
Static IP Address:
Primary DNS:
Secondary DNS:
http Proxy Address:
http Proxy Port:
Profile Name:
Configuration String:
Landline: No
Dial Prefix:
Dial String:
Wait for Dial Tone: No
User Name/Password Config: Per Profile
PPP User Name:
PPP Password:
Static IP Address:
Primary DNS:
Secondary DNS:
http Proxy Address:
http Proxy Port:

**Hub Settings**

Server URL: 24.227.88.236
User Name:
Password:

**Site Settings:**

Site Name: BAYFRONT
Site Type: Hub
Phone Number:
URL:
Use Hub’s Routing: Yes
Default Site: No
User Name:
Password:

Site Name: LARGO MED
Site Type: Hub
Phone Number:
URL:
Use Hub’s Routing: Yes
Default Site: No
User Name:
Password:

Site Name: NORTH PINELLAS
Site Type: Hub
Phone Number:
URL:
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**Reference ID Settings**

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**Manual Therapy Settings**

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<tr>
<td>Auto Switch to Fixed Mode Pacing:</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**AED Settings**

- Shock Series: 1
- Protocol Timeout: Off
- NSA Action: 120 sec.
- CPR Prompt: Short
- Monitor Prompt Interval: 120 sec.
- CPR Display: Advanced

**Printer Settings**

- Print on Alarm: Red Arrhythmia
- Print on Charge: No
- Print on Shock: No
- Print on Mark: No
- Printer Delay: 10 sec.
- Strip Print Speed: 25 mm/sec.
- 12-Lead Print Speed: 25 mm/sec.
- Event Summary Report: Medium
- Event Summary Pre-Context: 4 sec.
- Event Summary Post-Context: 6 sec.

**Mark Events Settings**

1. King Airway: No
2. IV/IO Access: No
3. Epinephrine: No
4. ETT Placed: No
5. Amiodarone: No
6. Sodium Bicarb: No
7. Aspirin: No
8. Nitroglycerin: No
9. Morphine Sulfate: No
10. STEMI Alert: No

**CPR Settings**

- Q-CPR: On
- CPR Timer: 120 sec.
- Q-CPR Voice: Audible
- Compression only CPR: Off
- Comp Color: Blue
- Q-CPR Feedback: On
- Research Storage: Off
- Guidelines: AHA
Thrombolytic Therapy Contraindications

Prompt for Contraindications: No

Network Settings

IP Address Assignment: Dynamic
MRx Static IP Address:
MRx Static IP Submit Gateway: 255.255.255.0
MRx Static IP Default Gateway:
DISPATCH PROCEDURES

Requirements for Soliciting Information:

1. The TTPs shall include a description of the system that allows the public and other agencies to notify the provider that emergency medical services are needed. The agency responsible for operating the system shall be identified. A description of the information to be solicited from the individual requesting emergency medical assistance in order to determine the number of patients, location of the incident, and extent and severity of reported injuries shall be included.

   A. The Pinellas County 9-1-1 Regional Communications Center operates as the single primary public safety answering point (PSAP) for all 9-1-1 calls originating in the County – the center answers over 570,000 emergency calls per year. Calls for law enforcement assistance are transferred to the appropriate agency. If a fire department or ambulance response is needed, 9-1-1 telecommunicators will dispatch units and support their activities during the emergency.

   B. The communications center is a necessary link between the person with the problem and the personnel who can help resolve it most effectively. It is the primary goal of the Communications Center to obtain and transfer necessary information in a timely and efficient manner. Accomplishing this goal ensures the effective and timely management of both Fire/EMS apparatus and law enforcement units in their response to the public's need.

   C. The 9-1-1 telecommunicator ascertains the following information when an individual requests emergency medical services and will conduct caller interrogation in accordance with the current Pinellas County version of the Medical Priority Dispatch System (MPDS) protocols:

      • nature of the emergency
      • address of the emergency
      • call back number
      • difficult access
      • specific routing
      • extent and severity of the emergency
      • number of victims

Requirements for Dispatching Emergency Vehicle:
1. A description must be included describing the methods used to ensure that the appropriately staffed and equipped EMS vehicle most readily available is identified and dispatched to the location of the incident.

   A. The closest response unit is determined by the 9-1-1 Center’s Computer Aided Dispatch (CAD) system. The CAD system immediately assigns the appropriately staffed and equipped emergency service provider that is closest to the call location regardless of jurisdiction, following the automatic aid/closest unit response policy. In the event the closest unit is unavailable, the CAD system will assign the next closest unit.

      a. Initial dispatch information includes:

         • location of the call
         • units being dispatched
         • nature of the call
         • assigned radio tac channel
         • response priority

Requirements for Emergency Agency Assistance:

1. A description of the criteria and process used to request additional EMS air or ground vehicles and/or other emergency response agencies shall be included.

   A. The process used to request assistance for specialized resources or additional assistance is as follows:

      a. Request for additional or specialized resources (i.e., Fire apparatus, ambulances, law enforcement, HazMat Team, Marine Patrol, etc.) is made by on-scene personnel through the 9-1-1 Center. The 9-1-1 Center will then coordinate the requested action via telephone, State Warning Point line, and/or radio, as applicable. The 9-1-1 Center, if required, will call for mutual aid.

   B. The procedures used by the 9-1-1 Center to request a helicopter to the scene of a "Trauma Alert" patient for transport to a trauma center are as follows:

      a. On-scene personnel will request an "Air Transport" through the 9-1-1 Center.

      b. The 9-1-1 Center will contact the appropriate helicopter service's dispatch via telephone and request their response.
c. The 9-1-1 Center will advise the helicopter dispatcher of the scene location, the GPS Coordinates, the number of victims, any available patient information, and the ratio designation of the on-scene Incident Commander.

d. The 9-1-1 Center will request the estimated time of arrival (ETA) of the helicopter.

e. The 9-1-1 Center will notify the on-scene Incident Commander of the ETA and radio designation of the responding helicopter service.

C. An “air transport upgrade” will be called for all emergencies requiring a helicopter. In most cases, it will not be necessary to ask for a specific air transport service by name. The 9-1-1 Center will make the decision based on the location of the incident and the availability of the helicopter service.

Requirements for Transport Assistance:

1. The TTPs must identify the criteria used to include and differentiate between ground and air ambulance services when transport assistance is requested. The TTPs must identify from what agencies assistance can be requested and the process used for obtaining assistance. In the event that air transport is not available within the service area of the provider, the TTPs should state that air ambulance service is not available.

A. All patients in the Pinellas County EMS System shall be transported by a Sunstar Paramedic ambulance.

B. As stipulated in these protocols, an ALS helicopter shall be utilized for the transportation of trauma patients that meet the Trauma Scorecard Methodology standards as stipulated in Chapters 64J-2.004 and 64J-2.005, F.A.C., and as follows:

a. When LOCAL CONDITIONS (heavy traffic/gridlock, multi-victim/mass casualty incident, remote or barrier island) exist and in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance faster than transport by Ground Ambulance.

b. When SCENE CONDITIONS (extended extrication, heavy machinery extrication, technical rescue, remote location) exist and in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance air faster than transport by Ground Ambulance.

c. When PATIENT CONDITIONS (requirement for Burn Center, Re-implantation Surgery
or Hyperbaric Chamber) exist that in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance faster than transport by Ground Ambulance.

C. Bayflite and Aeromed, ALS helicopter services, each have a Certificate of Public Convenience and Necessity from the Pinellas County Board of County Commissioners as an ALS provider in this County.

TRIUMA PATIENT ASSESSMENT FOR ADULT AND PEDIATRIC

Requirements for Adult Assessment:

1. The adult trauma scorecard assessment shall be documented in accordance with the requirements of section 64J-2.004, F.A.C.

A. Patients will be evaluated according to the severity of injury and anatomy and mechanism of injury as follows:

   a. Each EMS provider shall ensure that upon arrival at the location of an incident, an EMT or paramedic shall:

      i. Assess the condition of each adult trauma patient using the Adult Trauma Scorecard Methodology, as provided in this section, to determine whether the patient should be a “Trauma Alert” per Chapter 64J-2.004, F.A.C.

      ii. In assessing the condition of each adult trauma patient, the EMT or paramedic shall evaluate the patient’s status for each of the following components: airway, circulation, best motor response (a component of the Glasgow Coma Scale, which is defined and incorporated by reference in subsection 64J-2.001(6), F.A.C., cutaneous, long-bone fracture, patient’s age, and mechanism of injury. The patient’s age and mechanism of injury shall only be assessment factors when used in conjunction with assessment criteria included in Subsection C (f and g) of this section.

B. The EMT or paramedic shall assess all adult trauma patients using the following criteria in the order presented and, if any ONE of the following conditions is identified, the patient shall be considered a “Trauma Alert” patient:

   a. Airway: The patient receives active airway assistance beyond the administration of oxygen.
b. **Circulation:** The patient lacks a radial pulse with a sustained heart rate greater than 120 beats per minute or has a blood pressure less than 90 mmHg.

c. **Best Motor Response (BMR):** The patient exhibits a score of four or less on the motor assessment component of the Glasgow Coma Scale, or exhibits the presence of paralysis, or there is the suspicion of a spinal cord injury or the loss of sensation.

d. **Cutaneous:** The patient has 2nd or 3rd degree burns to 15 percent or more of the total body surface area, or amputation proximal to the wrist or ankle, or any penetrating injury to the head, neck, or torso (excluding superficial wounds where the depth of the wound can be determined).

e. **Long-Bone Fracture:** The patient reveals signs or symptoms of two or more long-bone fracture sites (humerus [radius, ulna] or femur [tibia, fibula]).

C. If the patient not be identified as a “Trauma Alert” using the criteria in Subsection B above, the trauma patient shall be further assessed using the following criteria and shall be considered a “Trauma Alert” patient when a condition is identified from any **TWO** of the following seven components:

a. **Airway:** The patient has a respiratory rate of 30 or greater.

b. **Circulation:** The patient has a sustained heart rate of 120 beats per minute or greater.

c. **BMR:** The patient has a BMR of five on the motor component of the Glasgow Coma Scale.

d. **Cutaneous:** The patient has a soft tissue loss from either a major degloving injury, or a major flap avulsion greater than five inches, or has sustained a gunshot wound to the extremities of the body.

e. **Long-Bone Fracture:** The patient reveals signs or symptoms of a single long-bone fracture resulting from a motor vehicle collision or a fall from an elevation of ten feet or greater.

f. **Age:** The patient is 55 years of age or greater.

g. **Mechanism of Injury:** The patient has been ejected from a motor vehicle (excluding any motorcycle, moped, all terrain vehicle, bicycle, or the open body of a pickup truck), or the driver of the motor vehicle has impacted with the steering wheel causing steering wheel deformity.

D. If the patient is not identified as a “Trauma Alert” patient after evaluating the patient using the criteria in
Subsections B and C of this section, the trauma patient will be evaluated using all the elements of the Glasgow Coma Scale. If the patient's score is 12 or less, the patient shall be considered a "Trauma Alert" patient (excluding patients whose normal Glasgow Coma Scale score is 12 or less, as established by the patient's medical history or preexisting medical condition when known).

E. Where additional local "Trauma Alert" criteria has been approved by the Medical Director of the EMS service and presented as part of the State Trauma Transport Protocols' approval process, the use of local "Trauma Alert" criteria as the basis for calling a "Trauma Alert" shall be documented as required in Chapter 64J-1.014, F.A.C. Local trauma assessment criteria can only be applied after the patient has been assessed as provided in Subsections B, C, and D of this section.

   a. The EMT or paramedic shall assess all adult trauma patients using the following criteria in the order presented and, if any ONE of the following conditions is identified, the patient shall be considered a "Trauma Alert" patient per Pinellas County Local Criteria:

   - Signs and symptoms/suspicion of a skull fracture, flail chest and/or pelvic fracture
   - Death of another passenger from trauma
   - Any ejection (complete or partial) from a motor vehicle
   - Major blunt trauma to the head, neck, trunk or pelvis

F. In the event that none of the conditions are identified using the criteria in Subsections B, C, D, or E of this section in the assessment of the adult trauma patient, the EMT or paramedic can call a "Trauma Alert" if, in his or her judgment, the patient's condition warrants such action. Where the EMT's or paramedic's judgment is used as the basis for calling a "Trauma Alert," it shall be documented as required in Chapter 64J-1.014, F.A.C.

G. The results of the patient assessment shall be recorded and reported in accordance with the requirements of Chapter 64J-2.002(5), F.A.C. through the completion of a Pinellas County Emergency Medical Services (PCEMS) Patient Care Report.

H. The paramedic or EMT will use the phrase "Trauma Alert" when notifying the 9-1-1 Center and receiving facility.

Requirements for Pediatric Assessment:

1. The pediatric trauma scorecard assessment shall be documented in accordance with the requirements of section 64J-2.005, F.A.C.
A. Each EMS provider shall ensure that upon arrival at the location of an incident, the EMT or paramedic shall assess the pediatric trauma patient by evaluating the patient's status for each of the following components: Airway, Consciousness, Circulation, Fracture, Cutaneous, and the pediatric patient's size when used in conjunction with the other components in Subsection C of this section. The assessment of the pediatric patient using the weight and length parameter and the other components of this section shall be referred to as the Pediatric Trauma Scorecard Methodology. In assessing the pediatric patient, the criteria for each of the components in Subsections B and C of this section shall be used to determine the transport destination for pediatric trauma patients.

B. The EMT or paramedic shall assess all pediatric trauma patients using the following criteria, and if any of the following conditions are identified, the patient shall be considered a pediatric “Trauma Alert” patient:

   a. **Airway**: In order to maintain optimal ventilation, the patient is intubated or the patient's breathing is maintained through such measures as manual jaw thrust, continuous suctioning, or through the use of other adjuncts to assist ventilatory efforts.

   b. **Consciousness**: The patient exhibits an altered mental status that includes: drowsiness, lethargy, the inability to follow commands, unresponsiveness to voice, totally unresponsive, is in a coma, there is the presence of paralysis, the suspicion of a spinal cord injury, or loss of sensation.

   c. **Circulation**: The patient has a faint or non-palpable carotid, femoral pulse, or the patient has a systolic blood pressure of less than 50 mmHg.

   d. **Fracture**: There is evidence of an open, long-bone (humerus, (radius, ulna), femur (tibia, or fibula)) fracture, or there are multiple fracture sites or multiple dislocations (except for isolated wrist or ankle fractures or dislocations).

   e. **Cutaneous**: The patient has a major soft tissue disruption, including major degloving injury; major flap avulsions; 2nd or 3rd degree burns to ten percent or more of the total body surface area; amputation at or above the wrist or ankle; or any penetrating injury to the head, neck, or torso (excluding superficial wounds where the depth of the wound can be determined).

C. In addition to the criteria listed in Subsection B of this section, a “Trauma Alert” shall be called when a condition is identified from any two of the components listed below:

   a. **Consciousness**: The patient exhibits symptoms of amnesia or there is loss of
conscioussness.

b. Circulation: The carotid or femoral pulse is palpable, but the radial or pedal pulses are not palpable or the systolic blood pressure is less than 90 mmHg.

c. Fracture: The patient reveals signs or symptoms of a single closed, long-bone fracture. Long-bone fractures do not include isolated wrist or ankle fractures.

d. Size: Pediatric trauma patients weighing 11 kilograms or less, or the body length is equivalent to this weight on a pediatric length and weight emergency tape (the equivalent of 33 inches in measurement or less).

D. Where additional local “Trauma Alert” criteria has been approved by the Medical Director of the EMS service and presented as part of the State Trauma Transport Protocols' approval process, the use of local “Trauma Alert” criteria as the basis for calling a “Trauma Alert” shall be documented as required in Chapter 64J-1.014, F.A.C. Local trauma assessment criteria can only be applied after the patient has been assessed as provided in Subsections B and C of this section.

    a. The EMT or paramedic shall assess all pediatric trauma patients using the following criteria in the order presented and, if any ONE of the following conditions is identified, the patient shall be considered a “Trauma Alert” patient per Pinellas County Local Criteria:

        • Signs and symptoms/suspicion of a skull fracture, flail chest and/or pelvic fracture
        • Death of another passenger from trauma
        • Any ejection (complete or partial) from a motor vehicle
        • Major blunt trauma to the head, neck, trunk or pelvis

E. In the event that none of the conditions are identified using the criteria in Subsections B, C, or D of this section in the assessment of the pediatric trauma patient, the EMT or paramedic can call a “Trauma Alert” if, in his or her judgment, the patient's condition warrants such action. Where the EMT's or paramedic's judgment is used as the basis for calling a “Trauma Alert,” it shall be documented as required in Chapter 64J-1.014, F.A.C.

TRAUMA DESTINATION REQUIREMENTS

1. All trauma alert patients must be transported to a Trauma Center or Pediatric Trauma Center nearest the location of the incident if the incident is within 30 minutes by ground or air transport or within 50 miles by air transport. The medical director shall identify any exceptions to this standard in the EMS provider's or trauma agency's TTPs with
explanation and justification. All patients meeting Trauma Alert Criteria shall be transported to the nearest Trauma Center or Pediatric Trauma Center.

A. All adult patients meeting the Trauma Alert Criteria as specified above shall be transported to the nearest Trauma Center.

B. All pediatric patients meeting the Trauma Alert Criteria as specified above shall be transported to the nearest State Approved Pediatric Trauma Center.

2. All hospitals to which trauma patients are routinely transported must meet state and federal emergency access to care laws and be capable of delivering care commensurate with the patient’s medical needs.

A. All hospitals to which all trauma patients are routinely transported meet state and federal emergency access to care laws and are capable of delivering care commensurate with the patient’s medical needs.

B. Please reference the Hospital attestation letters included.

3. If there are situations where the EMS provider’s medical director has determined it would be in the best medical interest of the trauma alert patient to be transported to a hospital other than those specified in paragraph (1) above, a list of such situations must be identified in the TTPs.

A. In cases where local conditions (weather, traffic, special event, disaster etc.) exist that would make transport to the nearest Trauma Center take longer than transport to another Trauma Center, the patient shall be transported to the Trauma Center able to be reached in the shortest amount of time.

B. In cases where patient factors (traumatic cardiac arrest, inability to secure the airway, inability to obtain IV/IO access, etc) exist that in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport to the closest initial receiving facility or another Trauma Center in the patients best interest, the patient shall be transported to the most appropriate facility.

C. Burn Patients shall be transported to a Burn Center. If the patient is suffering from multi-system trauma and transport to the Burn Center would take significantly longer than transport to the nearest trauma center, the patient shall be transported to the nearest Trauma Center.

4. The EMS provider must submit documentation to the department that all hospitals, trauma centers to which the EMS provider routinely transports have been provided a copy of the TTPs which the EMS provider will follow to determine trauma transport destinations submitted upon initial licensure and after revisions of the TTPs.

A. Reference included documentation.
5. A list of trauma centers and hospitals to which the EMS provider routinely transports adult and pediatric trauma alert patients must be identified in the TTPs.

### 2015-2017 TRAUMA CENTERS, INITIAL RECEIVING HOSPITALS AND OUT-OF-COUNTY HOSPITALS

<table>
<thead>
<tr>
<th>Hospital Name</th>
<th>Representative</th>
<th>Title</th>
<th>Address</th>
<th>Phone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Level 1 Trauma Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tampa General Hospital*</td>
<td>James Burkhart</td>
<td>Chief Executive Officer</td>
<td>One Tampa General Circle, Tampa, FL 33605</td>
<td>(813)251-7000</td>
</tr>
<tr>
<td>Bayfront Health St. Petersburg**</td>
<td>Kathryn Gillotta</td>
<td>Chief Executive Officer</td>
<td>701 Sixth Street South, St. Petersburg, FL 33701</td>
<td>(727)823-1234</td>
</tr>
<tr>
<td>Biga Medical Center</td>
<td>Daniel Friedrich</td>
<td>Chief Executive Officer</td>
<td>2020 – 89 Street West, Bradenton, FL 34206</td>
<td>(941)792-6611</td>
</tr>
<tr>
<td>Regional Medical Center Bayonet Point</td>
<td>Shayne George</td>
<td>Chief Executive Officer</td>
<td>14000 Hwy Road, Hudson, FL 34467-7103</td>
<td>(727)983-2411</td>
</tr>
<tr>
<td>Sarasota Memorial Hospital</td>
<td>David Verinder</td>
<td>Chief Executive Officer</td>
<td>1700 South Tamiami Trail, Sarasota, FL 34239</td>
<td>(941)917-9000</td>
</tr>
<tr>
<td>St. Joseph’s Hospital*</td>
<td>Lorraine Lutton</td>
<td>President</td>
<td>301 W. Dr. Martin Luther King Boulevard, Tampa, FL 33607-6387</td>
<td>(813)870-4000</td>
</tr>
<tr>
<td><strong>Level 2 Trauma Centers</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All Children’s Hospital**</td>
<td>Jonathan M. Ellen</td>
<td>President</td>
<td>601 – 6 Avenue South, St. Petersburg, FL 33701</td>
<td>(727)898-7451</td>
</tr>
<tr>
<td>Bartram Emergency Center</td>
<td>Kristopher Hoce</td>
<td>President</td>
<td>8830 Bryan Dairy Road, Largo, FL 33777</td>
<td>(727)462-7100</td>
</tr>
<tr>
<td>Bay Pines Veterans Administration Hospital</td>
<td>Suzanne Klinkert</td>
<td>Director</td>
<td>10000 Bay Pines Boulevard, St. Petersburg, FL 33744</td>
<td>(727)398-8661</td>
</tr>
<tr>
<td>Florida Hospital North Pinellas</td>
<td>Bruce Bergtham</td>
<td>Chief Executive Officer</td>
<td>1395 South Pinellas Avenue, Tarpon Springs, FL 34689</td>
<td>(727)942-5000</td>
</tr>
<tr>
<td>Largo Medical Center</td>
<td>Anthony DeGina</td>
<td>Chief Executive Officer</td>
<td>201 – 14 Street, Largo, FL 33770</td>
<td>(727)588-5200</td>
</tr>
<tr>
<td>Largo Medical Center – Clearwater Emergency Room</td>
<td>Anthony DeGina</td>
<td>Chief Executive Officer</td>
<td>2339 Gulf to Bay Boulevard, Clearwater, FL 33755</td>
<td>(727)588-5200</td>
</tr>
<tr>
<td>Largo Medical Center – Indian Rocks Campus</td>
<td>Anthony DeGina</td>
<td>Chief Executive Officer</td>
<td>2025 Indian Rocks Road, Largo, FL 33774</td>
<td>(727)338-5200</td>
</tr>
<tr>
<td>Meas Countyside Hospital</td>
<td>Lou Gaidieri</td>
<td>President</td>
<td>3231 McNutton Booth Road, Safety Harbor, FL 34695</td>
<td>(727)734-6365</td>
</tr>
<tr>
<td>Meas Dunedin Hospital</td>
<td>Lou Gaidieri</td>
<td>President</td>
<td>601 Main Street, Dunedin, FL 34698</td>
<td>(727)733-1111</td>
</tr>
<tr>
<td>Morton Plant Hospital</td>
<td>Kristopher Hoce</td>
<td>President</td>
<td>200 Pinellas Street, Clearwater, FL 33756</td>
<td>(727)462-7100</td>
</tr>
<tr>
<td>Norms Side Hospital</td>
<td>Dia Nichols</td>
<td>Chief Executive Officer</td>
<td>6000 – 49 Street North, St. Petersburg, FL 33709</td>
<td>(727)521-4411</td>
</tr>
<tr>
<td>Palms of Pasadena Hospital</td>
<td>Sharon Hayes</td>
<td>Registered Nurse</td>
<td>1501 Pasadena Avenue</td>
<td>(727)381-1000</td>
</tr>
<tr>
<td>St. Anthony’s Hospital</td>
<td>William Ulbricht</td>
<td>President</td>
<td>1200 – 7 Avenue North, St. Petersburg, FL 33705</td>
<td>(727)825-1086</td>
</tr>
<tr>
<td>St. Petersburg General Hospital</td>
<td>Janice Balzano</td>
<td>President and Chief</td>
<td>6500 – 38 Avenue North, St. Petersen, FL 33710</td>
<td>(727)384-1414</td>
</tr>
<tr>
<td><strong>Out-Of-County Receiving Facilities</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Medical Center of Trinity</td>
<td>Leigh Massengill</td>
<td>Chief Executive Officer</td>
<td>9330 State Road 54, Trinity, FL 34655</td>
<td>(727)834-4000</td>
</tr>
</tbody>
</table>

* Tampa General Hospital and St. Joseph’s Hospital are State Approved Pediatric Trauma Receiving Facilities
** Bayfront Health St. Petersburg and All Children’s Hospital operate a joint State Approved Pediatric Trauma Receiving Facility

¹ Tampa General Hospital and Blake Medical Center are Burn Centers

TRANSFER OF PATIENT CARE INFORMATION

1. The EMS transporting provider must include in the TTPs, requirements and procedures to be followed by EMTs and paramedics for completion of the patient care record as defined under section 64J-2.001(9), F.A.C., and required under section 64J-2.004, F.A.C., and the trauma information as required under section 64J-2.002(5), F.A.C., and the delivery of such information in writing with the trauma patient to a trauma center, or hospital at the time the patient is presented for care.

   A. The EMS provider responsible for the patient shall ensure that a prehospital trauma alert is issued upon determining that a trauma patient meets the requirements of Rules 64J-2.004 and 64J-2.005, F.A.C.

   B. The words “trauma alert” shall be used when notifying the trauma center, or hospital that EMS is enroute with a trauma alert patient.

   C. The medical director of the EMS provider issuing the trauma alert, or physician at the receiving trauma center, or hospital, are the only people authorized to change the trauma alert status.

   D. The EMS provider issuing the trauma alert shall also provide the trauma center or hospital with information required under subsection 64J-1.1014(5), F.A.C. and the information listed below at the time the patient is transferred to the personnel of the receiving trauma center or hospital:

      a. Time of injury if different from the time of the call

      b. Date of injury if different from day of call

      c. County of injury

      d. County of residence of patient

      e. Cause of injury

      f. Injury Site/type

      g. Trauma alert criteria if met as defined in Rule 64J-2.004 or 64J-2.005, F.A.C. and

      h. Protective devices if motor vehicle crash, bicycle or marine crash

   E. The information listed above shall be documented on the Pinellas County Emergency Medical Services
EMERGENCY INTER-FACILITY TRANSFER PROCEDURES

1. The EMS provider must have in place, as part of its TTPs, procedures for the rapid emergency inter-facility transfer of a trauma alert patient. The provider must be available within 30 minutes of receiving a call from the requesting hospital to provide inter-facility emergency medical service transfer of a trauma alert patient. The medical director shall identify any exceptions to this standard in the EMS provider’s TTPs with explanation and justification. If an EMS provider does not provide inter-facility transfer services that shall be documented in the TTPs.
Interfacility Transport Request Procedure
Call 727-587-2111

Sending Facility - Be Prepared to Provide the Following Information!
The Name of Your Facility
The Name of the Unit where the Patient is located
The Room and Bed where the Patient is located

***State the Urgency of the Transport***

<table>
<thead>
<tr>
<th>EMERGENCY</th>
<th>ASAP (as soon as possible)</th>
<th>Scheduled/Routine</th>
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<tr>
<td>Red Lights and Siren Response</td>
<td>Non-critical - Patient can wait for next available ambulance</td>
<td>A specific pick-up time is requested</td>
</tr>
</tbody>
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Additional Patient Information Required
Patient's Name, Age and Social Security Number
Diagnosis & Reason for Transport
Adjuncts Necessary for Transport - Reference "Scope of Practice" below
Isolation or Safety Precautions
Sending Physician Name
Destination Facility Name, Unit, Room/Bed
Receiving Physician Name
Transport Coordinator/Primary RN Name and Direct Telephone Number

Dispatch (if patient exceeds the scope of a Paramedic Ambulance)
Critical Care Transport will be dispatched. The Critical Care RN will call for patient report to discuss the patient's stability, potential for advanced interventions (i.e. airway management), adjuncts needed for transport and the estimated time of arrival for the most appropriate ground transport.

Ground Transport Options
- Critical Care Transport Team - CCRN, Critical Care Paramedic and EMT
- Critical Care Paramedic Ambulance - Critical Care Paramedic and EMT
- Paramedic Ambulance with Sending Facility Personnel & Adjuncts
- Paramedic Ambulance - Paramedic and EMT

Alternative Transport Options
- Helicopter - Bayflite (727-893-6010) or Aeromed (800-727-1911)
- All Children's Transport - Specialized Pediatric and NICU Transfers - Dispatch (727-263-2337) or Office (727-263-4333)

Revision June 23, 2014
## Scope Of Practice

### Critical Care Transport

- Critical Care Nurse (CCRN) or Critical Care Paramedic (CCP) and EMT
- Any patient with high probability of acute deterioration during transport
- High risk obstetric patients
- Blood and/or blood products
- Invasive Monitoring (Arterial lines, Swan-Ganz catheters, ICP, CVP, etc.)
- Advanced airway adjuncts or potential for advanced airway management (includes newly inserted chest tubes)
- Multiple IV medications requiring infusion pump and/or filtration
- Adjuncts to support circulation (transvenous pacemakers, IABP, LVAD, BIVAD, etc.)
- Mechanical ventilator (invasive/non-invasive modes)
- Infants less than 28 days and/or less than 5 kg

### Critical Care Paramedic Ambulance

- Critical Care Paramedic (CCP) and EMT
- Emergency STEMI patient with only one IV medication and are hemodynamically stable (systolic blood pressure greater than 100, heart rate less than 100 without significant dysrhythmias)
- Chronic ventilator patient with their own ventilator
- Arterial Snares (not monitored)
- Antibiotics
- Chest Tubes (greater than 48 hours)
- TPN (Total Parenteral Nutrition)
- Proton Pump Inhibitors (i.e. Protonix, Nexium, etc.)
- H2 Blockers (i.e. Zantac, Tagamet, etc.)
- Anticoagulants (i.e. Heparin)
- Antithrombotics (i.e. Integrilin, Aggrastat, etc.)
- Vasopressors (i.e. Dobutamine) non-flushing and end of life care only
- Maintenance IV fluids for a pediatric patient less than one year of age

### Paramedic Ambulance with Hospital Staff

- Patient requiring care outside the scope of practice of a Paramedic Ambulance. The hospital will provide the appropriate equipment, medication and staff for the transport

### Paramedic Ambulance

- ACLS (Advanced Cardiac Life Support)
- Locked infusion pumps (i.e. patient controlled/PCA)
- Maintenance IV fluids in adults (i.e. 0.9% Sodium Chloride, 0.45% Sodium Chloride, Dextrose 10%, Dextran 5%, Lactated Ringers, Sodium Bicarbonate - excludes Potassium containing fluids)
- Other interfacility transfers not meeting criteria listed in other Scope of Practice categories

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Revision June 23, 2014
ATTESTATION OF MEDICAL DIRECTOR'S PARTICIPATION, REVIEW AND APPROVAL OF TTP'S

Pinellas County Emergency Medical Services System
12490 Ulmerton Road
Suite #134
Largo, FL 33774
Telephone (727) 582-5750

As the Medical Director of Pinellas County Emergency Medical Services System (comprised of 19 individually licensed providers), I have developed and/or directed the development of the trauma transport protocols presented in this document.

__________________________
Approval Date

X
Print Name
Dr. Angus Jameson, MD, MPH
EMS Medical Director
Pinellas County EMS Medical Director

Pinellas County EMS Licensed ALS Providers

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AD19 CONTROLLED SUBSTANCE MANAGEMENT

I. CORE PRINCIPLES

To ensure our ability to continue to deliver Controlled Substances to our patients, guard against theft and diversion of these medications and comply with applicable laws and regulations, Pinellas County EMS personnel and agencies shall ensure that all Controlled Substances are:

1. Stored in PCEMS provided lockboxes with electronic lock and key within a secondary vehicle locked compartment.
2. Control and accountability at an individual vial or dosing unit level at all times from acquisition by EMS Central Supply until administration/disposal of waste or expiration/destruction.
3. Individually inspected and logged every time the status of a Controlled Substance changes (i.e. Transfer of Control, administered, disposed, damaged or returned expired) using the PCEMS supplied inventory management system and ePCR.
4. Administered only as authorized under the PCEMS Medical Operations Manual.

II. DEFINITIONS

- **Audit/Inspection** — means the process of inspecting individual dosing units, Controlled Substance boxes and/or keys, Controlled Substance vehicle compartments, ePCR records, electronic lock access records, inventory management records, and any other material or data needed to determine the history and status of a Controlled Substance and ensure adherence to the core principles.

- **Change in Status** — means obtaining a replacement Controlled Substance from EMS Central Supply or a Coordinator/Handler; the Transfer of Control from or to a Coordinator/Handler, Paramedic, Vehicle Supply Technician, the administration or partial administration of a Controlled Substance; any loss of control, breakage, return for expiration or complete or partial waste of a Controlled Substance.

- **Control Number** — means a unique identification number assigned by the medical supply inventory management system to each individual Controlled Substance Dosing Unit.

- **Controlled Substance** — means any substance, listed in Title 21 United States Code Chapter 13 Subchapter I Part B Section 812 Schedules of Controlled Substances, Chapter 893, Florida Statutes, or identified by the EMS Medical Director to have characteristics that make the drug or substance a risk to public safety or potential for abuse or diversion.

- **Controlled Substance Coordinator** — means the First Responder agency EMS Coordinator or Ambulance Contractor’s Logistics Manager. This individual is responsible for ensuring their agency’s compliance with this policy as well as oversight, management, compliance and implementation of all applicable federal, state and local laws, administrative rules and protocols related to Controlled Substances.
• **Controlled Substance Handler** – means an individual identified by the agency Controlled Substance Coordinator and approved by the EMS Medical Director or designee to possess and transport PCEMS Controlled Substances for the purpose of restock of expiring or damaged medications and resupply of used medications.

• **Controlled Substance Lock Box/Key** – means a specific brand, style, and custom labeled container with integrated electronic lock and key provided by PCEMS for the expressed purpose of secure storage and/or transport of Controlled Substances.

• **Controlled Substance Waste** – means the remaining liquid volume of Controlled Substance in a dosing unit when the entire volume of drug is not administered or when the dosing unit is partially administered.

• **Dosing Unit** – means the finished dosage form that contains a drug substance (i.e. vial, carpujet, prefilled syringe, tablet, etc.).

• **Electronic Lock/Key** – means “Cyberlock/Cyberkey” or successor device or product.

• **Electronic Lock/Key Database** – means “CyberAudit-Web” or successor device or product.

• **EMS Central Supply** – is located at 12490 Ulmerton Road in Largo, Florida 33774.

• **Inventory Management System** – means “Operative IQ” or successor device or product.

• **Vehicle Supply Technician** – means an employee of the Ambulance Contractor identified by the Ambulance Logistics Manager and approved by the EMS Medical Director or designee to issue and receive Controlled Substances and Controlled Substance Lockboxes and Keys at EMS Headquarters. Such employee is authorized to complete bulk transfer of multiple Controlled Substance Lock Boxes and Keys without physical inspection to another Vehicle Supply Technician.

• **Locked Vehicle Compartment/Key** – means a permanently constructed locked compartment of a vehicle that has been designated as the secure storage area for the Controlled Substance lock box.

• **Loss of Control** – means any period of time when a Controlled Substance or Controlled Substance Lockbox containing a Controlled Substance or its key is not under direct control of the individual who is documented to have control at that time in the inventory management software.

• **Certified Professional** – means the one (1) individual, as defined in the then current PCEMS Rules and Regulations, excluding Wheelchair Transport Driver and Mental Health Transport Driver, for each Advanced Life Support (ALS) Unit who has accepted the Transfer of Control of the Controlled Substance box and its then current contents; who retains custody of the locked vehicle compartment key and the Controlled Substance box key; who is responsible for the administration or direct oversight of the administration of Controlled Substances; and who is responsible for all documentation related to the change in status of any Controlled Substance Dosing Unit.

• **PCEMS Identification Number** – means the unique number issued to each Certified Professional by Pinellas County Emergency Medical Services that serves as identification.

• **Physical Inspection** – means the process of handling and visually examining each individual Controlled Substance product for missing drug, confirmation the Dosing Unit is not expired, the clear plastic bag is without evidence of disruption, intact exterior drug product packaging (i.e. molded packaging for prefilled syringe), security
seal intact labeling is without evidence of disruption, any visible damage to a stopper and/or vial cover, dis-coloration and/or incorrect level of the fluid in the Dosing Unit, crack(s) in the Dosing Unit, visibly leaking fluid, moisture in the exterior drug product packaging and/or evidence of potential tampering and/or defect at a minimum.

- **Transfer of Control** – means to convey or cause to move possession from one person to another.

### III. LABELING AND PACKAGING

1. Each individual Controlled Substance dosing unit shall be distributed to the system in a heat sealed clear plastic bag or container. Each bag will have a label that reflects the generic pharmaceutical name and the unique assigned Control Number expressed numerically and also represented in a barcode.

2. An individual Controlled Substance Dosing Unit shall remain in the heat sealed clear poly bag until it is to be administered to a patient per current protocol.

### IV. INVENTORY

1. The PCEMS BLS/ALS Inspection form or Medical Control Directive reflects the standard authorized inventory of Controlled Substance Dosing Units.

2. Temporary Controlled Substance Lock Boxes may be issued for unusual incidents such as mutual aid responses or disaster shelters.

### V. AUTHORIZED ACCESS AND USE

1. All Controlled Substances shall be securely stored and locked in the PCEMS issued Controlled Substance Lock Box.

2. Controlled Substances shall only be administered by on-duty PCEMS Certified Professionals for the provision of patient care and in accordance with the current PCEMS Medical Operations Manual.

3. Controlled Substances shall not be stored or carried in privately operated vehicles or on personal property.

4. The Controlled Substance Lock Box shall remain locked at all times except:

   a. During Transfer of Control.
   b. When Controlled Substances are actively being used as a part of patient care.
   c. Replacing expired, damaged, or recalled Controlled Substances.
   d. Receiving re-supply of Controlled Substances.
   e. Audit/Inspections per this protocol, request of law enforcement or at the request of the EMS Medical Director or designee.

5. The EMS Medical Director or designee may at any time access, perform audit/inspections, take possession of, or cause to be forensically tested any dosing unit(s) of Controlled Substances or Controlled
Substance Lock Box and/or key. Notification to the agency Controlled Substance Coordinator shall be completed upon occurrence.

6. NO OTHER ACCESS IS AUTHORIZED.

VI. TRANSFER OF CONTROL

1. Anytime a transfer of control occurs, an inventory and physical inspection of each Controlled Substance unit shall be conducted jointly by the individual transferring control and the individual accepting control in a face-to-face manner.

2. Transfer of Control shall be documented in the Inventory Management System immediately upon occurrence.

3. Until a Transfer of Control and accurate documentation has been completed, the individual transferring control is deemed to still have control.

VII. TRACKING AND DOCUMENTATION

1. The PCEMS Inventory Management System shall be utilized to document and track every change in status of a Controlled Substance.

2. The PCEMS ePCR shall be utilized to document every use and/or waste of a Controlled Substance Dosing Unit during patient care.

3. Individual PIN code access numbers and/or passwords are NOT to be shared with anyone under any circumstances, nor shall they be stored in such a manner as to allow anyone else access to or knowledge of the issued individual PIN access code and/or password. Any breach of individual PIN access code and/or password shall be reported to the agency Controlled Substance Coordinator and EMS Medical Director or designee immediately upon discovery.

VIII. CONTROLLED SUBSTANCE LOCK BOX AND KEY—AUTHORIZATION, CUSTODY, CONTROL, MAINTENANCE, AND STORAGE

1. Each agency is authorized:

a. One (1) PCEMS issued Controlled Substance Lock Box with key per EMS Authority authorized ALS First Responder Unit and ALS Ambulance.

b. One (1) PCEMS issued Controlled Substance Lock Box with key per EMS Authority approved supervisory vehicles (i.e. Lieutenant Rescue, Supervisor or District Chief). Such personnel must be authorized Controlled Substance Handlers.

c. One (1) unscheduled PCEMS Controlled Substance Lock Box electronic key for emergent scheduling and deployment.
d. PCEMS Administrative Controlled Substance Lock Box - Issued per the Agency Authorized Controlled Substance Lock Box Assignment Request form.

e. One (1) PCEMS issued Administrative Controlled Substance Key per Controlled Substance Coordinator and Controlled Substance Handler.

2. Controlled Substance Lock Boxes and/or Keys shall be surrendered upon request to the EMS Medical Director or designee, PCEMS Administration, or the agency Controlled Substance Coordinator.

3. Agency name and/or Unit ID may be applied to the box and/or key with a label tape, but no other alterations or permanent markings may be made.

4. The Controlled Substance Lock Box shall be stored on the vehicle under double-lock in the designated vehicle compartment (primary lock = lock to area of vehicle, secondary lock = box lock). The vehicle compartment shall be “Substantially Constructed” with 24 hour/day accountability to prevent diversion or tampering with products.

5. The individual Controlled Substance Lock Box electronic key shall be connected, charged and a sync process completed with the current PCEMS electronic lock/key database a minimum of once every twenty four hours. The key voltage should be maintained as close to maximum capacity (4.29 volts) as possible.

6. Each Controlled Substance Electronic Key individually assigned to a Controlled Substance Coordinator or Handler shall be connected, charged and a sync process completed with the current PCEMS electronic lock/key database a minimum of once every seven (7) days. The key voltage should be maintained as close to maximum capacity as possible.

7. The Controlled Substance Lock Box Key & Designated Compartment Key shall be maintained on a lanyard (RED = FIRE, BLUE = AMBULANCE, ORANGE = Administrative) provided by PCEMS.

8. The Administrative Controlled Substance Lock Boxes shall be in the direct control of the Controlled Substance Coordinator or Handler at all times when in use. Administrative Controlled Substance Lock Boxes may be used for the following functions exclusively:

a. Assuming control of dosage units from EMS Central Supply.

b. Distributing dosage units to frontline units.

c. Removing near expiring or damaged dosage units from frontline units.

d. Returning dosage units to EMS Central Supply.

e. Note that Controlled Substances may not be stored in an Administrative Controlled Substance Lock Box at any time.

9. The ALS unit Controlled Substance Box shall be in the direct control of the Certified Professional at all
times when in use.

10. If the box is secured in the locked vehicle compartment and the Certified Professional has sole control of the key to the compartment and the Controlled Substance electronic key, the Controlled Substance Lock Box is considered to be in the Certified Professional’s direct control.

11. The Certified Professional who has control of the assigned Controlled Substance Lock Box is to have sole possession and control of the Controlled Substance Box Key & Designated Compartment Key at all times.

12. Control of the key(s) shall be transferred to the Certified Professional, Controlled Substance Coordinator or, Handler, or Vehicle Supply Technician accepting control of the Controlled Substance Lock Box at the time of Transfer of Control.

13. Administrative keys shall remain in the custody of the assigned Controlled Substance Coordinator or Handler at all times and shall not be shared, transferred, or otherwise allowed to leave the direct control of the individual Controlled Substance Coordinator or Handler.

14. Out-of-Service Vehicles

a. Vehicles that are out-of-service (inoperable, not available for current operation, no crew available, not functional) shall have their controlled substance lock box removed and moved to an in-service vehicle with transfer of custody as applicable

IX. CONTROLLED SUBSTANCE USE AND WASTE

1. Every effort should be made to use medications with the earliest expiration date first.

2. Any volume of medication remaining in a partially used Dosing Unit is considered Controlled Substance Waste and shall be disposed of properly.

   a. Two Certified Professionals must witness.

3. Under no circumstances shall a Controlled Substance Dosing Unit be transferred to another agency.

X. DAMAGED CONTROLLED SUBSTANCE DOSING UNIT(S)

1. Upon discovery of any part of a Controlled Substance(s) Dosing Unit(s) having an appearance of damage, and tampering or diversion is not suspected, the following actions shall occur:

   a. The Dosing Units shall be immediately secured in a Sunstar Medication Bag without additional handling.
b. Immediate notification of the findings, upon discovery, shall be made to the appropriate supervisor per individual agency operating procedures.

c. A Controlled Substance Incident Report shall be completed in the Inventory Management Software by the Certified Professional discovering the damage, detailing the damage and the events surrounding the damaged unit(s).

d. The damaged Dosing Unit and Controlled Substance Incident Report shall be delivered to PCEMS Administration for review by the EMS Medical Director or designee as soon as practical.

2. Upon completion of a review of the information and damaged Dosing Unit(s) by the EMS Medical Director and PCEMS staff, the Controlled Substance Coordinator or designee will be notified to obtain re-supply from EMS Central Supply.

XI. TAMPERING/THEFT/LOSS OF CONTROL:

1. Upon discovery of a Controlled Substance Dosing Unit(s) missing, a loss of control occurrence, or the appearance of tampering, the following immediate actions shall occur:

   a. The handling of all Dosing Units in the involved Controlled Substance Lock Box shall cease immediately.

   b. Handling of the involved Controlled Substance Lock Box shall be limited.

   c. The unit involved in the event shall immediately be placed out of service and all personnel involved shall remain at the location where the event was first discovered until released by law enforcement and the EMS Medical Director or designee.

   d. The Controlled Substance Coordinator and law enforcement shall be notified.

   e. The EMS Medical Director or designee shall be notified.

   f. An incident report of form is to be completed by all personnel involved and forwarded to the EMS Medical Director or designee.

2. The unit involved in the event is to remain out of service until such a time as an investigation can be initiated by law enforcement.

3. DEA Form #106 is to be completed by the agency Controlled Substance Coordinator and submitted to the EMS Medical Director or designee within 12 hours of the occurrence.

XII. AGENCY CONTROLLED SUBSTANCE COORDINATOR SPECIFIC RESPONSIBILITIES
1. No later than January 15th of each year and upon any changes ensure that the following are submitted to the EMS Medical Director or designee for approval:

   a. Agency specific written operating procedures for Controlled Substance procurement, storage, handling, dispensing, and disposal as required by Florida 64J-1.021 and in compliance with this policy.

   b. A completed Agency Authorized Controlled Substance Coordinator and Handler Request form.

   c. A completed Agency Authorized Controlled Substance Lock Box Assignment Request form.

   d. A summary of internal audit/inspection activities occurring during the previous calendar year.

2. Ensure Adequate Employee Screening per PCEMS Rules and Regulations.

3. Ensure restock of soon to expire, used, and damaged medications.

   a. The Controlled Substance Coordinator may utilize a Controlled Substance Handler to assist in this function.

   b. Expiring dosing units:

      i. Shall be removed from service within thirty (30) days preceding the individual dosing unit printed expiration date.

      ii. Shall be sealed intact in a Sunstar Medication Bag to ensure segregation from active stock and prevent the possibility of an accidental administration. The bag shall have the word “EXPIRED” prominently written on the outside.

      iii. Shall be returned to EMS Central Supply upon removal and shall not be stored.

4. Conduct and document the following Controlled Substance Audit/Inspections:

   a. Irregularly timed, quarterly, and unannounced Audit/Inspection of at least 25% of the Controlled Substances assigned to the agency.

   b. Audit/Inspection documentation shall include the following minimum information:
i. Date and time of the audit, list of Controlled Substances examined with Control Numbers and volume, verification that status in Inventory Management System and ePCR match physical findings and any irregularities found.

5. Make immediate notification, upon discovery, to the Medical Director or designee of the following:
   a. Any discrepancies or possible diversion related activities found during audit or routine activities.
   b. Any personnel arrests or criminal charges related to Controlled Substances or illicit drugs.
   c. Any personnel substance abuse or dependence issues.
   d. Any allegations made regarding irregularities in controlled substance handling or administration.

XIII. CONTROLLED SUBSTANCE BOX LOCK/KEY FAILURE

1. Electronic lock and key technology is utilized as the method to secure and track access to the Controlled Substance Lock Box. EXCESSIVE MANUAL FORCE WILL DAMAGE THE INTERNAL LOCK COMPONENTS. Reference the lock/key manufacturer instructions for proper operation.

2. The respective agency Controlled Substance Coordinator, EMS Medical Director and PCEMS Administration shall be notified immediately upon the inability to access the controlled substance dosing units within a Controlled Substance Lock Box.

XIII. PROTOCOL EXCEPTIONS

1. All requests for exceptions to this protocol or authorization for activity involving Controlled Substances outside the scope of this protocol are to be submitted to the EMS Medical Director or designee in writing.

2. A specific medical directive will be issued by the EMS Medical Director and designee for all approved protocol exceptions or authorized activity outside the scope of this protocol on a case by case basis.

REFERENCES:

- Florida Administrative Code 64J-1
- Florida Statute Chapter 401 Medical Telecommunications and Transportation
- Florida Statute Chapter 499 Drug, Cosmetic and Household Products
- Florida Statute Chapter 859 Poisons; Adulterated Drugs
- Florida Statute Chapter 893 Drug Abuse Prevention and Control
- Code of Federal Regulations Chapter 42, Section 483
- US Code Title 21 Food and Drugs, Chapter I Food and Drug Administration, Department of Health and Human Services
- US Code Title 21 Food and Drugs, Chapter II Drug Enforcement Administration, Department of Justice
- US Code Title 21 Food and Drugs, Chapter III Office of National Drug Control Policy
- US Department of Justice Drug Enforcement Administration Office of Diversion Control www.dead-iversion.usdoj.gov
CS1 UNIVERSAL APPROACH TO PATIENT CARE

BLS:

Every patient will be provided a professional, complete, and accurate assessment, all indicated treatment, and transport to the appropriate facility beginning with:

- Employ “Universal Precautions” infection control measures on every patient
- Approach all patients with a high level of suspicion for injury or illness
- Bring all appropriate equipment to patient’s side
- Obtain complete vital signs
- Perform full assessment (history, exam, diagnostic testing) appropriate to patient’s condition and/or complaint
- Proceed to the appropriate protocol for the patient’s condition
- Transport to the appropriate facility as per the destination protocol
- Provide appropriate and accurate pre-arrival notification and bedside report to receiving facility
- Provide receiving facility with completed Patient Care Report prior to departure

ALS:

- ALS interventions as appropriate for patient condition and authorized by protocol or OLMC.
- Cardiac monitoring:
  - Continuous cardiac monitoring should occur from initial ECG placement until care is complete
  - Continuous cardiac monitoring should not be interrupted for routine patient movement or uploading data (e.g. entering data management mode)

OLMC:

- Consult Online Medical Control Physician if needed.

PEARLS:

- Scene safety - maintain situation awareness at all times
- Determine number of patient’s triage via START/JumpSTART
- Call early for additional resources as needed
CS2 PATIENT BILL OF RIGHTS

Patient's Rights

A patient has the right to:

Treatment for any emergency medical condition that will deteriorate from failure to provide treatment.

Be provided by the health care provider, information concerning diagnosis, a planned course of treatment, alternatives, risks, and prognosis.

Refuse any treatment, except as otherwise provided by law.

Be treated with courtesy and respect, with appreciation of his or her individual dignity, and with protection of his or her need for privacy.

Impartial access to medical treatment or accommodations, regardless of race, national origin, religion, handicap, or source of payment.

Know if medical treatment is for purposes of experimental research and to give his or her consent or refusal to participate in such experimental research.

Patient's Responsibilities

A patient is responsible for:

Providing to the health care provider, to the best of his or her knowledge, accurate and complete information about present complaints, past illnesses, hospitalizations, medications, and other matters relating to his or her health.

His or her actions if he or she refuses treatment or does not follow the health care provider’s instructions.

Pinellas County EMS Patient’s Bill of Rights and Responsibilities

Note: The following is adapted from the FL Patient’s Bill of Rights and Responsibilities as codified in Florida Statute 381.026. This reiteration of selected portions of the text is not meant to be exhaustive or exclusive, but rather to highlight and reinforce those components with specific applicability to the delivery of prehospital emergency care.
We have a duty to provide the safest care possible by...

- Responding to calls for assistance in a safe and timely manner
- Being mindful about what you’ve used from your equipment and restock. To this end, within your best capabilities, maintain a constant state of readiness.
- Providing expert, compassionate, and appropriate care as per the Medical Operations Manual and OLMC direction.
- Maintaining current and progressive professional knowledge.
- Respecting our patients’ autonomy when possible
- Acknowledging, addressing, and alleviating our patients’ fears and concerns whenever possible

Do the Right Thing

- Fulfill your duty to each and every patient.
- Be an advocate for your patients - this means prioritizing their needs above your own - safely of course.
- Maintain a patient focused environment.
- Lead Clinicians have a responsibility to be receptive to input from supporting Clinicians, likewise, supporting Clinicians have a responsibility to effectively and appropriately voice their input.
- Ultimately, there are many ways to get to the end goal of safe, appropriate, and successful patient care in any particular situation. Differences in style should not derail overall progress but safety concerns must be voiced and addressed immediately.
- Know and use the "8 Right's" to patient drug administration:
  1. Right Person
  2. Right Medication
  3. Right Dose
  4. Right Time
  5. Right Route
  6. Right Documentation
  7. Right Reason
  8. Right Response
- If you experience a medication or treatment error contact OLMC immediately for assistance with further appropriate treatment. Communicate the error to your fellow EMS Clinicians and the receiving facility to ensure the best ongoing care for your patient. Ensure the error is documented.
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Keep your patient informed. They have the right to make a decision you don’t agree with and that might be clinically detrimental to them only if they have been completely advised as to why their decision may be adverse to

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their health and have demonstrated decisional capacity.

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**CS4 DEFINITION OF A PATIENT**

**Adult Patient:**

All persons who have themselves requested, or have had requested on their behalf, medical assistance from the Pinellas County EMS System shall be considered patients. Additionally, any person that has a complaint suggestive of injury or illness, has evidence of injury or illness, or experiences a situation or event that may precipitate injury or illness, shall be considered a patient. These criteria shall be applied in the broadest sense and where there is any question or doubt, the person is to be considered a patient.

**Pediatric Patient:**

For the purposes of clinical treatment protocols, equipment sizing, and medication dosing, patients weighing <37 kg or able to be measured with the pediatric length based dosing tape will be considered pediatric. While a reasonable estimate may be given by age <=14, Clinicians must use judgment given that developmental age and weight are increasingly mismatched.

For the purposes of Trauma Transport Protocols, patients under the age of 16 will be considered pediatric.

For the purposes of destination selection in non-trauma patients, patients under the age of 18 will be considered pediatric.
**CS5 Hospital Destination Policy**

**Patient Status Definitions**

**RED:** Critical or unstable; requiring immediate intervention to preserve life and/or limb or prevent serious disability, including but not limited to “STEMI Alert”, “Stroke alert” and “Trauma alert” patients.

**YELLOW:** Serious; potential for loss of life and/or limb or risk of serious disability if care is not received in a timely manner.

**GREEN:** Non-Urgent; requiring care in a reasonable amount of time but will likely not suffer adverse effects from a limited delay in definitive care.

**BLACK:** Obviously dead, triaged as an unsalvageable(expectant patient, or having traumatic injuries incompatible with life.

**Hospital Status**

Go to [http://hs.sunstarems.com](http://hs.sunstarems.com) for real time hospital status and specialty capabilities (Log on information: user name is user; password is ho$pital).

**OPEN:** Hospital is on normal operating condition with the availability of all usual Specialty referral service capabilities. See notification procedure below.

**DIVERT:** Hospital has requested the diversion of all incoming 9-1-1/EMS Ambulance transports. Hospital DIVERT status shall be for a minimum of one (1) hour.

**Procedure:** Each Hospital shall ensure an up to date listing of Authorized Hospital Personnel allowed to change the Hospital’s status is provided to EMS. The listing shall include 24/7 contact information.

To change a Hospital’s Status the Authorized Hospital Representative will contact Sunstar Dispatch at 727-587-2102 or via radio in the event of a telephone system failure.

Sunstar Dispatch will update the Hospital Status log and website for all Hospital Status changes reported.

Authorized Hospital Representatives are responsible for checking the EMS designated website to ensure the Hospital’s reported status is accurate and reporting when the Hospital is OPEN or SPECIALITY DIVERT services become available.
CLOSED: Hospital has an internal disaster or inability to provide care for any incoming 9-1-1 Ambulance transports. See notification procedure above.

SPECIALTY REFERRAL SERVICES: The Hospital has provided in writing to EMS that the Hospital has one or more of the following Specialty Referral Services.

- Percutaneous Coronary Intervention (PCI)
- Primary or Comprehensive Stroke Center
- Psychiatric / Baker Act
- Pediatric/Neonatal
- Obstetrics
- Trauma Center
- Burn Center

SPECIALTY DIVERT: Hospital is OPEN with the exception of the inability to provide one or more of a facility’s usual specialty referral service capabilities. See notification procedure above.

EMS BYPASS: EMS System, with the approval of the OLMC Physician, has initiated temporary closure of a Hospital to all 911/EMS Ambulance transports in accordance with the Patient Wait Time/Hospital Bed Delay Protocol.

SYSTEM STATUS MANAGEMENT: In the event that multiple Hospitals in a given geographic area in the County are on Hospital DIVERT, such that honoring requests for Hospital DIVERT would place undue strain on the EMS System, the requesting Hospitals will be notified by Sunstar Dispatch. If no Hospital is able to return to OPEN status, patients will be distributed to all Hospitals as equitably as possible by the OLMC Physician.

Hospital Destination Policy

The overarching principle of the Pinellas County EMS System Destination Policy is to get the “right patient to the right hospital and facilitate the best possible care and outcome”.

- 9-1-1 Patients will be transported to receiving hospitals using the following criteria in rank order:
• All patients who accessed the Pinellas County EMS System by dialing 9-1-1, or who have an emergency medical condition, will be transported to a Hospital or Freestanding Emergency Department.

• Category **RED** patients will be transported emergency (lights and sirens) to the closest appropriate and OPEN Hospital (i.e. Hospital Emergency Room (ER) or Hospital ER with a Specialty Referral Service) for immediate stabilization. To ensure adequate resources at the patient’s side, first responder paramedics will accompany category **RED** patients to the hospital whenever practicable.

• Category **YELLOW** patients may be transported to an OPEN Hospital (i.e. Hospital ER or Hospital ER with a Specialty Referral Service) of their choice, if the estimated transport time is < 30 minutes, provided that hospital is an appropriate receiving facility for their condition and the Hospital is OPEN.

• Category **GREEN** patients may be transported to an OPEN Hospital (i.e. Hospital ER or Hospital ER with a Specialty Referral Service) of their choice if the estimated transport time is < 60 Minutes provided that hospital is an appropriate receiving facility for their condition and the Hospital is OPEN.

• Every effort should be made to honor our Veterans through facilitation of their transport to the U.S. Department of Veterans Affair Hospital provided their condition is stable, the VA Hospital is OPEN, and the patient does not meet criteria for specialty referral services that the VA Hospital does not provide.

• At any time during transport, the attending Clinician may transport to the closest Hospital (OPEN, DIVERT or EMS BYPASS) if, in their clinical judgment, the patient’s condition has deteriorated to the point the patient is unmanageable by EMS (i.e. unmanageable airway).

• It is incumbent upon the attending Clinician to explain why a particular Hospital is most appropriate, however, patients have the right to refuse a recommended Hospital provided the patient has “decisional capacity” and is not a Severity **RED** patient and a refusal is documented in accordance with Protocol CS6.

**Freestanding Emergency Departments**

Freestanding Emergency Departments (FEDs) provide all services of a standard Hospital Emergency Department, but, do not provide trauma or other Specialty Referral Services. Typically, FEDs are affiliated with a Hospital. It is important to note that patients who require admission after evaluation in FEDs must be transported a second time by EMS. Therefore, while these facilities provide a valuable service in increasing the availability of emergency evaluation and care,
we must be selective in which patients we transport to such facilities. We may also be called upon to educate our patients regarding the capabilities of these facilities.

**Freestanding Emergency Department (FED) Transport Guideline**

Severity **GREEN** patients may be transported to a FED except in any of the following conditions:

- Patients that require a Specialty Referral Service
- Pregnant women >20 weeks gestation
- Patients who require physical or chemical restraints.

**Patient Wait Time / Hospital Bed Delay Protocol**

To ensure patient wait time is minimized and patients are transferred to Hospital personnel in a timely manner, the Pinellas County EMS System established the Patient Wait Time / Hospital Bed Delay Protocol. This is necessary to ensure the highest quality care for our patients, as well as maintain the availability of Ambulance resources to respond to the next patient.

**EMS BYPASS will be activated in the following manner:**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 Minutes</td>
<td>Arrival at Hospital</td>
</tr>
<tr>
<td>5 Minutes</td>
<td>Patient waiting &gt;5 min without transfer of care, the attending clinician will notify Sunstar Dispatch.</td>
</tr>
<tr>
<td>15 Minutes</td>
<td>Patient waiting &gt;15 minutes without transfer of care, Sunstar Dispatch will contact the Hospital ER Charge Nurse.</td>
</tr>
<tr>
<td>20 Minutes</td>
<td>Patient waiting &gt;20 minutes without transfer of care, the EMS System will place the Hospital on EMS BYPASS until such time as transfer of care has been accomplished for all patients currently at that facility in the care of EMS clinicians. The OLMC Physician will approve the EMS BYPASS.</td>
</tr>
<tr>
<td>30 Minutes</td>
<td>Patient waiting &gt;30 minutes without transfer of care, the EMS System will place the Hospital on EMS BYPASS for a period of two (2) hours to allow the Hospital to decompress its Emergency Department. The Hospital may request EMS rescind the EMS BYPASS prior to the two hours if the Hospital indicates they can safely resume accepting patients. The OLMC Physician will take the request into consideration and may override the EMS BYPASS prior to two hours.</td>
</tr>
</tbody>
</table>
This clinical standard document describes how patients make an informed decision to accept or refuse evaluation, treatment, and/or transport.

Background:

All persons who themselves, or through a third party, have summoned emergency medical assistance within the Pinellas County EMS system are presumed to have a condition requiring evaluation, treatment, and transportation to the closest appropriate hospital emergency department. Patients have the right to refuse part or all of the evaluation, treatment, and transport provided that they have decisional capacity.

Definitions:

“Decisional Capacity” means a patient that is able to understand their current medical condition, as well as, the risks, benefits and alternatives of the proposed treatment plan, and has the legal ability to provide consent (i.e. is not either 1, a minor that has not been emancipated; or 2, an adult who is known to have been adjudicated incompetent by a Court).

“Expressed Consent” exists when a patient (adult or emancipated minor), with decisional capacity, agrees to or requests evaluation, treatment and/or transport.

“Implied Consent” exists when a patient’s current medical condition prevents them from being able to provide expressed consent, or when a third party is not present to provide Third Party Consent.

“Third Party Consent” means a parent/guardian of a minor, power of attorney, legal guardian of an incompetent adult, law enforcement officer or healthcare surrogate, as appropriate, who may accept or refuse evaluation, treatment and/or transport on behalf of a minor, detained/incarcerated person, or person determined to be legally incompetent.

BLS / ALS

1. Evaluate all patients to the fullest extent indicated if possible and determine if the patient or a third party is the appropriate decision maker.

2. If the patient does not appear to have decisional capacity, proceed with evaluation, treatment, and transport under implied consent.

3. If the patient appears to have decisional capacity, they may refuse all or part of the indicated evaluation, treatment, recommended destination and/or transport.

4. If the patient has questionable decisional capacity, administer an EMS Cognitive Evaluation. If the patient passes, they may refuse except as indicated in the [EMS COGNITIVE EVALUATION](#). If the patient fails, proceed under implied consent.
5. In cases involving Third Party Consent, ensure the responsible party has decisional capacity prior to allowing decisions to be made on behalf of the patient. Document the third parties’ relationship to the patient. If there is doubt as to whether the third party is acting in the patient’s best interest (e.g. abuse or neglect) immediately involve law enforcement.

6. Documentation for a patient refusing part or all of the evaluation, treatment, and transport, must include at a minimum: the criteria used to establish decisional capacity; the benefits of allowing care, the risks of refusing the proposed care including severe complications or death, and the alternatives explained and offered to the patient.

7. Attempt to ensure the patient is left in a safe location.

OLMC

Contact OLMC if:

1. After passing the EMS Cognitive Evaluation, doubt remains as to a patient’s decisional capacity, or if the patient’s current medical condition (i.e. hypotension, hypoxia, head injury, etc...) calls into question their decisional capacity despite having passed the EMS Cognitive Evaluation.

2. Other unusual situations where the correct course of action is not apparent based on the criteria contained within this standard.
CS7 DECEASED PERSONS/OBVIOUS DEATH/WITHHOLDING RESUSCITATION

**Non-traumatic cardiac arrest**- attempt resuscitation for all patients found pulseless and apneic, unless any of the following are present:

- Signs of irreversible death
- Rigor mortis
- Dependent lividity
- Decomposition
- A valid Florida Do Not Resuscitate Order (Form 1896) ([CS8 HONORING DNRO / POLST FORMS](#))
- Healthcare surrogate or durable power of attorney wishes to have resuscitation efforts withheld
- When attempts to perform cardiopulmonary resuscitation would place the rescuer(s) at risk of physical injury

**Traumatic cardiac arrest**- attempt resuscitation for all patients found pulseless and apneic, unless any of the following are present:

- Signs of obvious death or injuries incompatible with life, such as decapitation, >90% 3rd degree burns, etc.
- Asystole or agonal rhythms (i.e. PEA<40 bpm) with **massive** trauma, blunt or penetrating
- If suspected arrest time > 10 minutes or circumstance/location of incident precludes rapid removal to a hospital (entrapment, inability to rapidly extricate, remote location).
In situations in which cardiopulmonary resuscitation is being administered (i.e. nursing home staff, family, and bystanders), EMS should either ask for their continued delivery of care due to the adequacy of the cardiopulmonary resuscitation being performed, or should request their discontinuance of effort. **EMS personnel are to assume continuation of resuscitation while making decisions on whether the patient meets the criteria of this protocol.**

Do Not Resuscitate Orders (DNRO) - The presentation of a valid Florida DNRO also constitutes objective criteria for withholding cardiopulmonary resuscitation, to include cardiac compressions, endotracheal intubation and/or other advanced airway management, artificial ventilation, defibrillation and related procedures, in the event of a cardiac or respiratory arrest. DNRO may apply to patients with any type of electrocardiogram (ECG) rhythm, not just those in asystole. **The presentation of a valid DNRO does not relieve EMS of the responsibility to provide interventions in the non-arrested patient for comfort care or to alleviate pain. Pain relieving measures may be particularly appropriate in prehospital care of such patients.**

**Do not confuse DNRO with a Living Will.** A Living Will serves an entirely different purpose and should not influence the acute application of resuscitation. *(Example. A healthy 20-year-old may have a valid Living Will. That does not mean EMS should not provide care if that person is involved in a serious motor vehicle accident or has a cardiac arrest).*

However, if that person was later determined to be brain dead, the Living Will would direct ventilators, etc. to be disconnected and that the patient is allowed to die naturally, with comfort measures only.

A prehospital DNRO may be considered valid by any of the following methods:

**Method 1** – Florida Prehospital Do Not Resuscitate Order – This is Florida Department of Health Form #1896. To be considered valid, Form #1896 must meet the following criteria:

- Is on the State of Florida Do Not Resuscitate Order Form #1896, or is a copy of an original form #1896 on yellow paper. This change allows health care providers to generate their own supply on DNROs. [http://www.-floridahealth.gov/](http://www.-floridahealth.gov/)
- Has signatures from the attending physician and the patient, or if the patient is incompetent, their health care surrogate, proxy or guardian.
- The DNR has not been orally withdrawn by the patient, court appointed guardian, patient's health care surrogate, or healthcare proxy. **Next-of-kin, other family, and friends do not have the right to withdraw a valid DNRO unless they are the patient’s health care surrogate, proxy or guardian. If in doubt, contact Online Medical Control while resuscitation is initiated.**
- Patient identity is verified with a photo ID (i.e., driver's license), other photo identification or someone on-scene attests to the patient's identity.
Method 2 -- DNRO document from a Licensed Health Care Facility, Hospice provider, or from another State - To be considered valid, EMS recognition of a DNRO form from a licensed healthcare facility, a licensed hospice provider, or from another State must meet the following criteria:

- Document clearly states that it is a DNRO and states that the patient is not to be resuscitated in the event of a cardiac or respiratory arrest.
- Has an effective date, which predates the date the assistance is requested
- Includes the patient's full legal name, typed or printed
- Is signed by the patient's attending physician and includes the physician’s medical license number, telephone number and date completed.
- Is signed and dated by the patient, patient's health care surrogate or proxy, or legal guardian if one is appointed.
- Is signed and dated by at least two witnesses

When honoring a DNRO Method number 1 and 2, the following steps must also be completed:

- Determine the identity of the patient with a DNRO through a driver's license, other photo identification, or from a witness in the presence of the patient.
- Determine that the DNRO form is fully and properly executed in that it has the required signatures, has been witnessed, and has an effective date which predates the date the assistance is requested
- Documentation is made of the following items in the narrative portion of the EMS run report any time a DNRO is honored:
  - Effective date of the DNRO
  - Information pertaining to witness (name, address, telephone number, and relationship to patient), if one was used to establish patient identification.
  - Name of the attending physician who signed the DNRO
  - Name of the patient or other person (surrogate or proxy) who signed the DNRO.
  - Whenever the patient dies at home or during transportation.

Transfer Arrangements.

When arrangements are being made to transfer a patient with a DNRO between facilities or from their primary residence to a healthcare institution, the receiving facility shall be contacted and informed of the patient's DNRO prior to transport. The receiving facility shall agree to accept the patient if; during transport the patient expires and the DNRO is honored. When possible, coordination of the proposed transportation should be made on a recorded transmission, documenting the facilities acceptance and the name of the facilities representative agreeing to the above conditions. During such transport the following guidelines should be followed:
• Ensure that the original or a copy (see below Special Notes & Situations) of the pre-hospital DNRO, accompanies the patient. Every attempt should be made to transport, with the patient, a copy of the pre-hospital DNRO. The original should remain at the patient’s residence or at the nursing facility they reside. The EMS provider shall relinquish the DNRO form, along with the patient to the receiving facility.
• If the EMS provider receives a request to transport the patient home or to another health facility for further treatment, the EMS provider shall obtain a valid copy of the DNRO form from the sending facility prior to the transport.
• Before transportation may occur, Online Medical Control must be consulted in situations where the field Clinician finds the family or healthcare facility requesting transportation of a patient who has either lost, misplaced, or has verbally requested that the patient not be resuscitated, has no valid DNRO, or in which a “copy” of a DNRO can not be validated.

Special Notes and Situations:

• In situations where it is impossible to copy the document, the original should accompany the patient and be delivered to the receiving facility. In these situations, it may be beneficial to document in the patient care record where the original DNRO was left and who took custody of it.
  ■ If the original DNRO is transported with the patient, inform either the receiving facility or the family member of the importance of archiving the original and in making additional copies.
• A Basic Life Support (BLS) capable unit arriving on the scene before a County Certified Paramedic may honor a valid DNRO if the patient has met either Method # 1 or Method # 2 outlined within this protocol. The BLS unit may consult with OLMC describing the circumstances and the reason for honoring or discontinuing a resuscitative effort. However, a county certified Paramedic must arrive at the patient and continue the complete documentation of the facts and circumstances used in making this decision.

Patient Identification Device - State of Florida Do Not Resuscitate Order Form #1896

The patient identification device is a miniature version of the State of Florida Do Not Resuscitate Order Form #1896 and is incorporated by reference as part of the DNRO form. Use of the patient identification device is voluntary and is intended to provide a convenient and portable DNRO which travels with the patient. The device is perforated so that it can be separated from the DNRO form. It can also be hole-punched, attached to a chain in some fashion and visibly displayed on the patient. In order to protect this device from hazardous conditions, it should be laminated after completing it. Failure to laminate the device shall not be grounds for not honoring a patient’s DNRO order, if the device is otherwise properly completed.

In order to not inconvenience patients or waste the current supply of DNRO forms, all previous versions of DH Form 1896 are considered valid.
This protocol defines the requirements for completing the Pinellas County EMS Patient Care Report either by the electronic Patient Care Reporting System (ePCR) or by paper forms and the transfer of patient records and belongings between EMS clinicians and Hospital personnel.

**Patient Care Report Completion**

- A Pinellas County Patient Care Report (PCR) must be completed in all of the following instances:
  - A BLS or ALS Unit responds to a request for emergency or non-emergency medical services.
  - A Paramedic obtains a refusal of evaluation from an individual, makes patient contact, assesses a patient, provides treatment and/or transport, or confirms the death of a patient.
  - The first County Certified EMT or Paramedic on the scene is responsible for starting and ensuring the completion of a PCR for each licensed EMS provider agency.
  - Provisionally certified Paramedics filling out a PCR must have the County Certified Paramedic Preceptor review and also sign the PCR.
  - Each agency that arrives to assist in patient care shall complete a PCR documenting any assessment and/or interventions provided by personnel from their agency.
  - All pertinent fields in the ePCR or paper PCR shall be completed including all patient demographic information, assessments, treatments and interventions, and required signatures.
  - If a BLS or ALS First Responder Unit is cancelled by a Unit from another agency a “cancelled enroute” PCR must be completed.
  - If a BLS or ALS First Responder Unit is cancelled by a Unit from the same agency, the Unit being cancelled is not required to complete a PCR.
  - An Ambulance Unit must complete a report unless they are canceled for a “closer unit” or a “higher priority call.” If an Ambulance Unit is “cancelled on scene” by an ALS First Responder a PCR must be completed.

**Electronic and Paper Forms Completion**

- All ALS First Responder and Ambulance Units are required to complete an electronic ePCR.
- In the rare circumstance that a PCR is not completed immediately after the transfer of care, a PCR c must be completed and filed before the EMT or Paramedic ends their shift.
- In the event of a computer failure, a paper PCR shall be completed and Tablet or Web-based ePCR report shall be completed as soon as the ePCR system is available. The paper PCR shall be retained to meet records management requirements.
- For Level 2 Mass Casualty Incidents (>10 Patients) Triage Tape and Triage Tags will be utilized on scene and during transport. After the Mass Casualty Emergency has been mitigated, ePCR reports shall be completed by ALS First Responder Units to the extent possible. Ambulance Units shall ensure an ePCR record is completed for all
transports.

- Any ancillary forms required shall be completed as required by the EMS Authority or EMS Medical Director.
- When a paper PCR is utilized, the form’s color paper carbon copies shall be distributed as indicated on the report.

**Transfer of Patient Care – ALS First Responder to Ambulance**

- When patient care is transferred from one Unit to another Unit (i.e. ALS First Responder to Ambulance) a verbal report shall be provided including the history of present illness/injury, past medical history/medications/allergies, and treatments or interventions performed, and the proposed plan of care shall be provided.
- Any electronic or paper documentation, available at the time of the transfer of patient care, shall be provided. This shall include uploading EKGs, copying ePCR data to the receiving Unit, and/or providing a copy of any paper forms (i.e. patient transfer forms, face sheets, medication lists, DNR forms, paper EMS forms, etc.)
- Transport shall not be delayed for report completion. ALS First Responders can electronically update and complete their ePCR record after patient transport is initiated.
- For critically ill or injured patients the ePCR tablet shall be utilized for the duration of the call or until the patient is transferred to Hospital personnel. At the conclusion of the call, the ePCR and EKG data shall be copied to the ALS First Responder or Ambulance to ensure both reports are complete.

**Transfer of Patient Care – Ambulance to Hospital**

- When patient care is transferred from the Ambulance or ALS First Responder to the Hospital’s personnel a verbal report, including the history of present illness/injury, past medical history/medications/allergies, and treatments or interventions performed shall be provided.
- Ambulance Units (or an ALS First Responder Unit that transported a patient) shall leave a completed PCR (paper or ePCR) including EKGs and provide a copy of any paper forms (i.e. patient transfer forms, face sheets, medication lists, DNR forms, paper EMS forms, etc.) shall be provided to the Hospital for all patients at the time patient care is transferred.
- Label all EKGs with the patient’s name and date of birth prior to 12 Lead EKG Transmission and label all electronic/paper EKGs provided for the patient’s medical record.

The only exceptions to NOT leaving a Completed PCR prior to leaving the Hospital are as follows:

- A “Partially Available” Ambulance is needed to respond as the closest unit to an Emergency call. After such response, any incomplete PCRs must be completed.
- “Partially Available” means a patient has been transferred to Hospital staff with a verbal report and the Ambulance is able to respond to the next call.
- When possible, place the patient’s belongings and medications in a clear Patient Belongings bag. Write the patient’s name on the bag and seal the bag.
- Ensure the patient’s medications and belongings are transferred to the Hospital staff. Obtain a signature for receipt of the patient and their belongings from the Hospital or facility staff.
Appropriate medical care when faced with multiple or an overwhelming number of patients

**Triage Group**

- The START©/JumpSTART© Triage Algorithms will be used whenever the number of patients on scene exceeds the number of responders on scene, or when the number of patients at an incident reasonably may present challenges to routine patient tracking procedures. All system Clinicians must be able to rapidly and effectively employ this method.
- Although it is preferable to employ state approved standardized triage tags, in the initial sorting operation it is acceptable to use color coded alternative marking devices.
- Prior to initiation of Triage procedures:
  - Determine whether the scene is safe for triage personnel to proceed.
  - Request additional resources; ALS units, transport units, the mass causality trailer, and law enforcement, if appropriate.
  - Consider a chemical/hazmat incident if multiple patients on scene have similar, non-traumatic, complaints, signs & symptoms.
- When more than one clinician is required for triage, a Triage Officer will be responsible for determining the total number of patients in each category.

**Treatment Group**

- Treatment group leader will set up the Red, Yellow, Green and Black treatment areas.
- Treatment group leader will ensure a secondary triage of all patients in the treatment areas is conducted and that appropriate state approved triage tags are affixed to each patient.
- Treatment group leader will communicate to the transport group leader any transport needs.
- Re-triage on ongoing recurrent assessment is mandatory for all patients who remain in the treatment sector > 30 minutes.

**Transport Group**

- The transport group leader should contact Sunstar Dispatch for assistance in determining transportation destination and to alert the hospital network to initiate disaster plans, as appropriate.
- EVERY patient (including those who deny injury) must have the following documented by the Transport group leader.
  - Name
  - Age
c. Condition at Transport
d. Destination

This is the minimum documentation for every person triaged.

PEARLS

- Each patient can be assigned a triage within 60 seconds or less.
- The only treatment during START®/JumpSTART® Triage is one manual attempt at opening the airway for adults or 5 rescue breathes for children and placing pressure on a source of major bleeding.
CS13 INTERFACILITY TRANSFERS

Pre-Transport

1. Review patient information provided by the communications center.

2. Ensure *minimum* required equipment is taken to the bedside:
   - Sunstar Only/ Immediate Transfers – Full ALS gear
   - Unscheduled Non-Emergency -- Full ALS Gear
   - Scheduled Non-Emergency – Airway bag

3. Care initiated by the sending facility many need to be continued during transport.
   - Should the patient require care and/or equipment above and beyond the normal scope of practice and training of the responding EMS personnel, the transferring facility shall provide appropriate staff or consider other means of medical transport (Critical Care Transport, Air Upgrade)
   - The Paramedic has the right to decline a transport if he/she is convinced patient care is outside their scope of practice and training or, alternatively, insist a hospital member accompany them on the transport.
   - If additional staff accompanies the patient, it is the responsibility of the transferring physician to assure their qualifications.
   - Specific written orders for treatments, including medications for ALS transfers and other orders should be obtained from the transferring physician prior to the initiation of the transport.
   - Ordered medications not contained within the EMS system must be supplied by the transferring hospital.

4. The following information should accompany the patient (but not delay the transfer in acute situations):
   - Copies of pertinent hospital records
   - Written orders during transport
   - Any other pertinent information including appropriate transfer documents

During Transport

1. Interventions performed enroute and who performed them will be documented on the patient care report.

2. The concentration and administration rates of all medications being administered will be documented in the patient care report.

3. If applicable, hospital supplied medications not used during transport must be turned over to staff at the receiving facility with signature confirming receipt.
4. In the event a patient’s condition changes or warrants intervention other than as authorized under standing orders or those provided in writing by the transferring Physician, consult with OLMC is required. OLMC may provide further orders or request the crew initiate contact with the receiving physician to guide specialty care.

5. If patient condition is rapidly deteriorating, the Communications Center should be contacted to determine the closest facility available for diversion. OLMC should be contacted when the potential need for diversion has been determined.
CS14 MANDATORY REPORTING REQUIREMENTS

Child Abuse / Abandonment / Neglect

It is mandatory to report known or suspected child abuse, abandonment or neglect by a parent, legal guardian, caregiver or person responsible for the child’s welfare. Reference: Florida Statutes Chapter 39.

Refer to State DCF website for more information:

http://www.myffamilies.com/service-programs/abuse-hotline

Vulnerable Adult Abuse / Neglect / Exploitation

It is mandatory to report known or suspected abuse, neglect or exploitation of vulnerable adults (i.e. elderly, person with diminished mental capacity, etc.).

Reference: Florida Statute Chapter 415.

Refer to State DCF website for more information:

http://www.myffamilies.com/service-programs/abuse-hotline

Requirements

1. Fully document the situation and observations in the Patient Care Report.
2. Notify the Florida Department of Children & Families Abuse Hotline at (800) 96-ABUSE
3. Notify the appropriate Law Enforcement agency
4. Notify Receiving Hospital personnel

Burns

The Paramedic who initially treats a person with a 2nd or 3rd Degree Burn affecting 10% or greater Body Surface Area that has been caused by a flammable substance, or the result of violence or unlawful activity must report the incident to the local Sheriff.

Reference: Florida Statute Chapter 877

Requirements

1. Fully document the situation and observations in the Patient Care Report.
2. Notify the Pinellas County Sheriff’s Office
The premise of OLMC consultation, in general, is that certain situations require increased levels of critical decision making and/or weighing of patient specific risk/benefit considerations, must be tracked for quality assurance purposes, pose a medicolegal risk to the EMS system and providers, or may benefit from the unique perspective and knowledge of the OLMC staff.

OLMC contact shall be established in the following circumstances:

1. Contact OLMC any time medical advice is needed.
2. Cases where OLMC options are requested.
3. When significant differences of opinion regarding patient care occur between the system and healthcare facilities, healthcare providers or law enforcement officials.
   - In the case of differences between system Clinicians, the Paramedics involved will focus on the provision of patient care and timely transport of the patient. Patient safety concerns on scene shall be relayed to the lead Paramedic, who will retain full responsibility for decisions made. The lead Paramedic is expected to heed patient safety concerns raised to ensure we “do no harm.” Discussion about the situation should occur after the call with the involvement of appropriate supervisor(s). EMS Coordinators are expected to initiate a Quality Assurance Review of any clinical or significant concerns. In the cases of differences between the system and other parties, OLMC will mediate discussions via the radio and/or telephone. These situations must be handled as discreetly and professionally as possible, and preferably not in the presence of the patient or their family.
4. All cases where there is an unsuccessful attempt to facilitate intubation with the use of medications
5. Cases where a field response by OLMC is requested.
6. Cases in which a deviation from protocol is requested.
   - Intentional deviation from protocol requires consultation prior to the initiation of the deviation, not merely reporting after the fact.
7. Cases where there is a request for discontinuation of cardiopulmonary resuscitation (CPR) in the field.
8. Situations in which a bystander physician or other health care provider wants to participate in patient care or specify a transport destination contrary to protocol.
9. Cases in which a medication, treatment or transport error, or patient injury has occurred.
10. Cases in which a piece of EMS equipment has malfunctioned or is of concern to the Paramedic.
Consultation is required only if the equipment problem may have affected patient care. Otherwise, malfunctions or concerns are to be reported directly to your supervisor or EMS Coordinator.

11. OLMC authorization is MANDATORY before leaving one Emergency Department or hospital property to go to another, except where formal interfacility transfer arrangements have been made by the transferring physician.

12. All cases potentially involving law enforcement transport of a patient to a healthcare facility.

13. All patients not meeting trauma alert or local trauma center transport criteria but for whom the Clinician feels neurosurgical services may be necessary.

14. All patients who originally agree to go to the hospital by ambulance, but who later refuse as a result of receiving information about their potential financial obligations.

15. All cases in which scene personnel believe that transport to Tampa General Hospital for hand and/or other reimplantation services may be indicated. The consult must be completed prior to committing to an out of county transport.

16. All requests for air transport upgrade for trauma patients who do not meet Trauma Alert Criteria. Consult should be performed as early in the call as possible and prior to initiating the air transport upgrade. Air transport status may be requested prior to consult.

17. As required otherwise in specific interim and/or Emergency Orders or protocols.
The purpose of this protocol is to describe the legal authority and proper procedures to be followed when obtaining a blood specimen at the request of law-enforcement officer.

1. Introduction:

a) There are several situations in which a County Certified Paramedic or EMS physician may be called upon to draw blood samples at the request of law enforcement officers for determination of alcohol or drug levels. The highest priority of EMS, in any case, is to render emergency medical care as needed. Blood samples may be drawn only after those needs have been addressed. Situations may arise where blood sampling must be delayed or deferred to the receiving emergency department to attend to higher medical priorities.

b) Types of situations in which law enforcement may request blood sampling include the following:

- An accident scene in which a fatality, or potentially fatal injury, has occurred.
- Cases of DUI (Driving Under the Influence (of drugs or alcohol)) where an accident is of lesser severity or in which no accident has occurred.
- Cases involving crimes apart from those involving traffic, such as rape, assault, etc.

c) Regardless of the situation, if a blood sample is drawn at the request of law enforcement for the purpose of determining blood alcohol or drug levels, the following procedure shall be used. **Blood samples requested by law enforcement for DNA testing are not currently approved by the EMS Medical Director.**

2. Procedure:

a) A patient care record (PCR) must be initiated for any blood collection request. The patient is to sign the refusal after the blood collection is completed if not being transported to the hospital.

b) Check the “Supplemental Form” box to indicate a blood sample form is attached.

c) Note the following in the “Remarks” section:

   i. A blood specimen kit was used
   ii. Betadine (providone-iodine) solution was used for the skin preparation.
   iii. Time of draw
   iv. If paramedic drawing sample is different from the one signing the report, that paramedic will sign under the above information
   v. A blood sample form was completed
   vi. The expiration date of the blood specimen kit

c) Log the time of the blood sample as a procedure.
d) Kit Specific Details - USE ONLY THE BLOOD SPECIMEN KIT PROVIDED BY PINELLAS COUNTY EMS (per the Federal Needlestick Safety and Prevention Act)

- Check the kit to ensure it is in date and the "Kit Integrity Seal" is intact.
- Show the kit to the officer noting the expiration date and intact "Kit Integrity Seal".
- Show the patient, who is having blood drawn, the kit expiration date and intact "Kit Integrity Seal" in the presence of the law enforcement officer.
- Open the kit in presence of the patient and the law enforcement officer.
- Use only the contents in the kit, specific to the draw. DO NOT utilize any other medical supplies without first showing the law enforcement officer and patient.
- Complete the collection and labeling of the blood samples following the specific "Blood Specimen Collection Instructions" (blue sheet) contained within the kit.
- Per the instructions, provide only what is indicated to the law enforcement officer. Discard all other material.
- Document all details and actions of the blood collection on the patient care record.

e) All blood samples taken shall be surrendered to the requesting law enforcement officer.

f) The paramedic shall:

i. Render emergency medical service or treatment as necessary prior to the drawing of blood alcohol samples
ii. Obtain blood alcohol samples only at the request of a law enforcement officer
iii. Obtain a minimum of two samples per person per draw

3. Consent:

a) Florida Statute 316.1933(1) (a) – Blood test for impairment or intoxication in cases of death or serious bodily injury; right to use reasonable force.

b) In cases at an accident scene where a fatality, or potentially fatal injury, has occurred, the law allows for blood samples to be drawn even if the subject/patient does not consent. Consent and cooperation should be sought, but if the law enforcement officers are able to adequately restrain the patient (using “reasonable force” if necessary), a County Certified Paramedic or EMS physician may draw the blood sample in these circumstances. The test shall be performed in a reasonable manner.

c) Any person who is incapable of refusal by reason of unconsciousness or other mental or physical condition shall be deemed to have not withdrawn his or her consent to such test. A blood test may be administered whether or not such person is told that his failure to submit to such test will result in the suspension of the person’s privilege to operate a motor vehicle in the state of Florida.
d) In cases where an accident is of lesser severity or in which a DUI violation is suspected without an accident, blood samples may be drawn by a County Certified Paramedic or EMS physician if the patient gives consent. The subject/patient may NOT be forced into providing a blood sample in such cases.

e) For cases involving crimes other than traffic accidents or DUI, law enforcement officers may bring suspects/patients to fire stations or to ambulances to obtain your assistance in drawing blood samples. Again, the subject/patient must consent to the procedure. The subject/patient may not be forced into giving a blood sample in such cases.

f) For cases of blood sampling requiring consent, the Pinellas County EMS Blood Sampling Consent Form shall be utilized. Use of the form is self-explanatory.

4. Additional Information:

a) No hospital, clinical laboratory, medical clinic, or similar medical institution or physician, certified Paramedic, registered nurse, licensed practical nurse, other person authorized by a hospital to draw, or duly licensed clinical laboratory director, supervisor, technologist, or technician, or other person assisting a law enforcement officer shall incur any civil or criminal liability as a result of the withdrawal or analysis of a blood or urine specimen, or chemical test of a person’s breath pursuant to accepted medical standards when requested by a law enforcement officer, regardless of whether or not the subject resisted administration of the test.

b) FS 316.1933 defines the term “serious bodily injury” as an injury to any person, including the driver, which consists of a physical condition that creates a substantial risk of death, serious personal disfigurement, or protracted loss or impairment of the function of any bodily member or organ.

c) F.S. 843.06 Neglect or refusal to aid peace officers. Whomever, being required in the name of the state by any officer of the Florida Highway Patrol, police officer, beverage enforcement agent, or watchman, neglects or refuses to assist him in the execution of his office in a criminal case, or in the preservation of the peace, or the apprehending or securing of any person for the breach of peace, or in case of the rescue or escape of a person arrested upon civil process, shall be guilty of a misdemeanor of the second degree. This assumes the subject is adequately restrained.
Purpose:
This protocol describes the options available for the involuntary care and transport of patients. There are three legal provisions for EMS to care for patients against their wishes:

a. **Refer to Protocol CS6 for Patient Consent, Refusal and Implied Consent.**

b. **Baker Act** – Florida Statutes Chapter 394 allows a Law Enforcement Officer, Physician, Clinical Psychologist or other Mental Health Professional, or the Court through an Ex Parte Order to initiate an involuntary examination of a person having mental illness.

c. **Neglect** - The law requires such professional, listed above, to determine that without care or treatment, the person is likely to suffer from neglect or refuse to care for himself or herself; such neglect of refusal poses a real and present threat of substantial harm to his or well-being; and it is not apparent that such harm may be avoided through the help of willing family members or friends of the provision of other services.”

d. **Potential to Harm Self or Others** - The law requires such professional, listed above, to determine that there is a substantial likelihood that without care or treatment the person will cause serious bodily harm to himself or herself or others in the near future, as evident by recent behavior.

e. **Marchman Act** – Florida Statutes Chapter 397 allows a Law Enforcement Officer to initiate an involuntary admission and protective custody of a person having a substance abuse impairment in a public place and appears to be incapacitated. The officer must have a good faith reason to believe the person is substance abuse impaired and has (1) lost the power of self control with respect to substance abuse; (2) has inflicted, or threatened or attempted to inflict or unless admitted is likely to inflict physical harm on himself, herself or another; or (3) is in need of substance abuse services.

f. **Chapter 401** – Florida Statutes Section 401.445 allows an EMS Physician to order the involuntary care and transport of a patient who does not have the decisional capacity to make their own healthcare decisions. See Protocol CS6

**Note: A fundamental principle in EMS is “crew and patient safety.” Law Enforcement should be summoned to all involuntary transport situations for protection of both the crew and the patient.**

**Requirements**

1. Assist the law enforcement officer or medical professional by providing appropriate medical assessment, treatment, and safe/dignified transport to the appropriate Hospital or Hospital Baker Act Receiving Facility.

2. Refer to Treatment Protocol M3

3. For interfacility transports refer to Protocol AD14

**Pinellas County Baker Act (BA) Receiving Hospital Facilities:**
- Largo Medical Center - Indian Rocks Campus
- Morton Plant Hospital (Adult and Pediatric)
- St. Anthony's Hospital
- Bay Pines VA Hospital (Veterans only)
Pinellas County uses a modified S.O.A.P. template for the patient care narrative.

**Rationale:**

The purpose of this narrative format is to:

1. Illustrate your clinical thought process as you cared for your patient
2. Show why that thought process was reasonable

A series of check boxes and data points as collected in the rest of the PCR is not able to tell a story that shows the reader why they would have done the same under similar circumstances.

**Examples:**

To assist the clinician in utilizing this template, the following thought process can be applied when completing the patient care narrative:

1. Start by stating what kind of patient you had (this is the “A” of SOAP).
2. Then describe the patient specific, complaint specific, pertinent positives and negatives of the subjective assessment (“S”) that support #1.
3. Then describe the patient specific, complaint specific, pertinent positives and negatives of the objective assessment (“O”) that support #1.
4. State #1 and how #2 and #3 convinced you that #1 was the correct assessment. What treatment (P), specific to your assessment, did you complete? How did the patient respond? What did you tell the person that you ultimately transferred

**Pearls:**

- Poor documentation, in-of-itself, can qualify as legal negligence
- No humorous acronyms or terminology – keep it professional.
• If it wasn’t written, it didn’t happen
• For a field assessment of mental capacity, think about documenting whether the patient was alert/oriented to person, place, time, situation – provide specifics on how you were able to ascertain this and couple it with your Glasgow Coma Score.
• Use Correct Spelling: Utilize your on-board spell check or a dictionary.
CS19 SPECIAL PATIENT PROTOCOL

BACKGROUND:

- From time to time we will encounter a patient who has unusual medical conditions or requires specialized treatment modalities outside our normal operating protocols.
- We cannot write protocols for each of these unusual situations into the Medical Operations Manual.
- It is important to be able to rapidly identify these type of patients and implement the appropriate specialized care.

POLICY:

- A patient with unusual medical conditions that requires specialized treatment will be issued a Pinellas County EMS “Special Patient Protocol Identification Card”. The card will contain patient demographics, background information, standing orders and any applicable drug information.
- The patient will be instructed to carry the card with them at all times and present to EMS clinicians upon initial contact. Any specialized medications needed shall be kept by the patient with the card.
- Upon being presented with such a card and after verifying the patient’s identity, Pinellas County EMS Clinicians are authorized to follow the standing orders as printed on the card.
- OLMC Physicians retain ultimate discretion in management of all patients and may be contacted for any clinical guidance or questions or as specified on the card.
- This card will have an expiration date and a copy of the card with supporting information will be kept on file. ALS First Responders in areas frequented by such patients (i.e. home, work, school) will be advised when card is issued and provided with a copy of card. Additionally, CAD Caution Notes will be added to the home address for these patients.

See the sample card below:
### SPECIAL PATIENT PROTOCOL IDENTIFICATION CARD

#### PT INFORMATION

- **Name:** EXAMPLE  
- **DOB:** 11/25/1919
- **Address:** Pinellas County
- **MEDICAL HX:** Hereditary Angioedema, HTN, Diabetes, Migraines, Vertigo
- **Allergies:** Sufa, Flagyl, ACE nhbs.
- **Meds:** Kalbitor, Bystols, Nitro, Humulin, Welchol, Epi-Fen
- **Emergency Contact:**
- **Special Notes:**
- **Primary Care Physician:**
- **Allergist:**

#### PROTOCOL

1. If suspected HAE symptoms, IMMEDIATELY administer 3 separate 10mg (1ml) SubQ injections of Kalbitor separated by at least 2 inches.
2. Implement ALS care.
3. Contact OLMC and prepare for transport.

Over for Notes/Drug Info →

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Expires 06/01/14

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**Notes:**

1. This patient suffers from Hereditary Angioedema (HAE), a rare disorder that causes frequent, painful, and potentially life-threatening episodes of swelling of the face, tongue, and pharynx.
2. HAE does not respond to normal allergic/anaphylactic treatments.
3. This patient requires emergent administration of specialty drug not in our normal formula to reverse her symptoms. The patient carries this drug on her person.
4. This patient MUST be transported following our administration of her self-carried medication.

**Drug Info:**

1. **Kalbitor** is a plasma kalikrein inhibitor indicated for treatment of acute attacks of hereditary angioedema (HAE).
2. **DOING:** 30mg (1ml), administered subcutaneously in three 10mg (1ml) injections. Max 60mg/24 hrs.
3. **PACKAGING:** Single use glass vial containing 10mg/ml of solution as a solution for injection.
4. **WARNINGS AND PRECAUTIONS:** Risk for Anaphylaxis. Difficult to distinguish HAE vs anaphylaxis. Administer only in monitored setting equipped to manage reactions.
All patients in the Pinellas County EMS System shall be transported by a Sunstar Paramedics ambulance.

The following exceptions allow for the use of local Fire Rescue Units or mutual aid ambulances in situations in which there is a delayed arrival of a Sunstar unit:

A. **SEVERITY “RED” PATIENT**
B. **TRAUMA ALERT**
C. **VOLATILE SCENE** - Situations in which remaining on the scene may endanger the EMS Crew or the patient.
D. **REMOVAL FROM ENVIRONMENT** - Situations where severe weather is hindering patient care or removal from the environment is the definitive care (i.e. pedestrian struck during a severe storm; heat stroke/exhaustion, lightning strike victim).
E. “**CONDITION 5**” - Situations in which the 9-1-1 Regional Communications Center has changed the Countywide Operational Status to “Condition 5” due to extreme call volume, severe weather, or a mass casualty situation.
F. **EMS EMERGENCY OR DECLARED DISASTER**

**REQUEST FOR TRANSPORT.** OLMC must be contacted prior to loading the patient on the fire department stretcher except in rare and unusual circumstances. OLMC will advise if transport has been authorized and shall make the final decision regarding the transportation of all patients.

**Note:** Transfer between Fire/Rescue and Sunstar stretchers is authorized where patient care and safety is not compromised.

**Air Transport**

The following exceptions allow for the use of Air Medical Transport (Helicopter Ambulance) resources for **CATEGORY “RED” PATIENTS**:

A. When **LOCAL CONDITIONS** (heavy traffic/gridlock, multi-victim/mass casualty incident, remote or barrier island) exist and in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance faster than transport by Ground Ambulance.
B. When **SCENE CONDITIONS** (extended extrication, heavy machinery extrication, technical rescue, remote location) exist and in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance faster than transport by Ground Ambulance.
C. When **PATIENT CONDITIONS** (requirement for Burn Center, Re-implantation Surgery or Hyperbaric Chamber) exist that in the judgment of the attending EMT, Paramedic, or Incident Commander would make transport by Helicopter Ambulance faster than transport by Ground Ambulance.

**Note:** Any other use of Air Transport Services requires prior OLMC Authorization.
CS21 Medical Operations at Incidents with Ongoing Threats (Active Shooter Response)

Purpose:

The purpose of this Clinical Standard is to describe the appropriate and authorized interventions for operations in the civilian tactical environment. Use of this protocol is restricted to major incidents with ongoing threats (i.e. Active Shooter or similar events).

Background:

Although medical priorities remain the same as in general EMS, the tactical environment requires modifications to protocol, training, and approach to address the following challenges:

1. Functioning in a known, suspected, or potentially hostile environment (Hot or Warm Zone).
2. Limitations to equipment, assessment, and treatment options due to the ongoing threat environment.

The above factors contribute to different risk/benefit considerations than normal EMS operations and dictate alterations in the standards of care by zone.

Clinical Standard by Zones of Care:

**Hot Zone:** The Hot Zone (Care Under Fire) is defined as any hostile location subject to effective incoming fire or exposed to an active threat without cover or security. The nature of the Hot Zone necessitates severe limitations in patient assessment and care including the following:

1. Triage must be based on limited information and by necessity may be completed at a distance assessing for movement or other signs of life.
2. Cardiac arrest patients in this zone may not be considered to be viable due to the inability to provide further care.
3. Formal Spinal Motion Restriction (SMR) is inappropriate in this zone. When feasible, attempt to move the patient along the body’s long axis during extraction attempts.
4. Care in this situation should be **limited** to extraction to cover, followed by control of life-threatening external hemorrhage and application of vented chest seal if practical.

   NOTE: Severe external hemorrhage control should be accomplished utilizing tourniquets or wound packing with hemostatic gauze/ETD as the first line treatment modality in both the Hot and Warm Zones. Reference CP16 and CP24

**Warm Zone:** The Warm Zone (Tactical Field Care) is defined as a potentially hostile location with the benefit of cover or security. The Casualty Collection Point may be located in the warm zone. The nature of the Warm Zone necessitates limitations in patient assessment and care including the following:

1. Triage assessment using standard START categories may be attempted.
2. Cardiac arrest patients may still not be considered viable candidates for resuscitation efforts based upon available resources.
3. Care in this situation should be **focused** on control of external hemorrhage, management of penetrating chest trauma and tension pneumothorax, and basic airway maneuvers.
4. Other limited ALS interventions may be possible dependent upon level of threat and available resources but are not required.

   **NOTE:** Severe external hemorrhage control should be accomplished utilizing tourniquets or wound packing with hemostatic gauze/ETD as the first line treatment modality in both the Hot and Warm Zones. Reference CP16 and CP24

**Cold Zone:** The Cold Zone (Evacuation Care) is defined as a location not subject to immediate threat. The transport sector ambulance loading point and treatment areas as needed may be located in the cold zone. Care in this situation should include care per **normal** protocols and initiation of transport with or without transfer of care to other providers.
### A1 FOREIGN BODY AIRWAY OBSTRUCTION

**BLS**
- Supplemental Oxygen (O2), if indicated
- Have suction readily available
- Mild / partial obstruction
  - **DO NOT interfere.** Monitor the patient for signs of severe foreign body airway obstruction
  - Allow the patient to clear the airway by coughing
  - Reassure the patient and allow for position of comfort
- Severe / complete obstruction
  - Conscious
    - Perform abdominal thrusts until the object is expelled or becomes unresponsive
    - Chest thrusts for an obese patient if unable to encircle the patient's abdomen
    - Chest thrusts for a patient in late stage pregnancy
  - Unresponsive
    - Start cardiopulmonary resuscitation
    - Check and remove any visible foreign body in the airway each time the airway is opened during CPR
    - **DO NOT perform blind finger sweeps**

**ALS**
- Perform endotracheal intubation for an obstruction suspected below the level of the cords
- Perform direct laryngoscopy and attempt to remove the foreign body with Magill forceps
- If still unable to ventilate:
  - Attempt to push the obstruction with an endotracheal tube (balloon deflated).
  - Retract endotracheal tube to original position and attempt ventilation
- If prior interventions unsuccessful, perform cricothyotomy

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEA**
- Signs of foreign body airway obstruction include an acute onset of respiratory distress with coughing, gagging, stridor or wheezing
- A severe obstruction develops when a cough becomes silent, respiratory effort increases and is accom-
panied by stridor or unresponsiveness
- DO NOT delay transport for multiple intubation attempts
- Transport to the closest hospital is mandatory for an uncontrolled airway
### A2 ASTHMA / CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

| BLS | - Allow patient to assume position of comfort  
|     | - Apply Oxygen (O2) as needed  
|     | - Assist patient with their own medication, as needed (i.e. Albuterol, Metered-Dose Inhaler (MDI), Epinephrine Autoinjector) |

| ALS | - Aerosol therapy  
|     |   - Albuterol 2.5 mg and Ipratropium 0.5 mg, may repeat x 1, followed by  
|     |   - Albuterol 2.5 mg, repeat as needed  
|     | - Methyprednisolone Sodium Succinate 125 mg slow intravenous push  
|     | - Electrocardiogram (ECG) rhythm assessment and consider 12 lead for evaluation of alternate/underlying causes  
|     | - Consider use of capnography cannula  
|     | - If patient does not improve or is **in extremis at patient contact:**  
|     |   - Epinephrine 0.3 mg of 1:1000 intramuscular (1 mg/mL) (caution in patients >35 years old or history of cardiac disease), repeat dose x 1  
|     |   - Consider **Epinephrine drip** (OLMC required)  
|     |   - Move to aerosol meds via direct instillation into endotracheal tube |

| OLMC | - Consideration of **CPAP**  
|      | - Consideration of Magnesium Sulfate 2 g mixed in 100 mL bag D5W infused intravenously over 10 - 20 minutes  
|      | - Additional doses of Epinephrine 1:000  
|      | - **Epinephrine drip** |

| PEARLS | - Asthma is a deadly disease  
|        | - Patients with a history of being intubated in the past may deteriorate rapidly  
|        | - A silent chest = pre-respiratory arrest  
|        | - Think of pneumothorax if patient decompensates after intubation / CPAP |
A3 TRACHEOSTOMY EMERGENCIES

**BLS**
- If the ventilator-dependent patient is in respiratory distress and the cause is not easily determined and corrected, remove the patient from the ventilator and begin ventilation with bag-valve-mask (BVM) device.
- Suction as needed.

**ALS**
- If suspected obstruction of tracheostomy, instill 1-3 mL of 0.9% Sodium Chloride or sterile water into the tracheostomy tube and suction as needed.
- If unable to clear obstruction, unable to ventilate effectively, caretaker is familiar with tracheostomy changes and has spare tube, may assist to remove the tracheostomy tube and insert a new one (same size or smaller). DO NOT FORCE TUBE.
- If no tracheostomy tube available and patient is unable to ventilate, insert an endotracheal tube of similar size in the stoma and ventilate with bag-valve-mask (BVM) device.
- If unable to insert endotracheal tube, ventilate with bag-valve-mask (BVM) over stoma or over patient's mouth while covering stoma.
- May transport patient on home ventilator.
- Ask caretaker / family member for assistance.

**OLMC**
- Consult Online Medical Control Physician if needed.

**Type of Ventilator Alarms**
1. Low pressure or apnea - may be caused by a loose or disconnected circuit or an air leak. May result in inadequate ventilation.
2. Low power - caused by depleted battery.
3. High pressure - can be caused by a plugged or obstructed airway or circuit tubing by coughing or by bronchospasm.
4. Setting error - is caused by ventilator settings outside the capacity of the equipment.
5. Power switchover - occurs when the unit switches from alternating-current power to the internal battery.

**Signs of Tracheostomy Tube Obstruction**
1. Excess secretions
<p>| | |</p>
<table>
<thead>
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<tbody>
<tr>
<td>2.</td>
<td>No chest wall movement</td>
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<tr>
<td>3.</td>
<td>Cyanosis</td>
</tr>
<tr>
<td>4.</td>
<td>Accessory muscle use</td>
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<tr>
<td>5.</td>
<td>No chest rise with bag-valve ventilation</td>
</tr>
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# A4 Carbon Monoxide (CO) Monitoring and Toxicity

## Goals of Care
- Rapid identification of patients at risk for CO exposure and appropriate initiation of displacement therapy with high flow Oxygen (O2)

## BLS
- Avoid exposure to EMS personnel
- Move patient(s) to fresh air immediately
- Consider need for environmental monitoring
- Administer Oxygen (O2), minimum 15 L via non-rebreather mask, immediately
- Note and inform hospital personnel of any environmental CO reading levels obtained at the scene
- Assess for signs and symptoms of exposure:
  - Mild exposure - headache, nausea, vomiting, fatigue
  - Severe exposure - altered mental status, respiratory distress/arrest

## ALS
- If severe exposure symptoms, establish intravenous access and provide advanced airway management (Reference CP1), hemodynamic support, and seizure control (Reference M14) as needed
- For patients not requiring advance airway management, continue displacement therapy:
  - CPAP if not contraindicated and patient tolerates, or
  - Oxygen, minimum 15 L via non-rebreather mask

## OLMC
- Consult Online Medical Control Physician as needed.

## Pearls
- **RESPONDER SAFETY IS PARAMOUNT!!**
- Remember CO is produced from incomplete combustion and is odorless, tasteless, and colorless.
- A meter is required for the detection of Carbon Monoxide (CO).
- Do not rely on SpO2 readings (CO will cause false readings).
Quality Measures

1. Pending

References

### A5 CYANIDE POISONING - SMOKE INHALATION

<table>
<thead>
<tr>
<th>BLS</th>
<th>ALS</th>
<th>OLMC</th>
<th>PEARLS</th>
</tr>
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<tbody>
<tr>
<td>- Avoid exposure to EMS personnel</td>
<td>- Advanced life support intervention as needed for patients condition</td>
<td>- Consult Online Medical Control Physician if needed.</td>
<td>- Cyanide is the product of the combustion of materials commonly found in household furnishings and should be considered in all patients who were exposed to smoke</td>
</tr>
<tr>
<td>- Move patient(s) to fresh air immediately</td>
<td>- Establish intravenous access x 2</td>
<td></td>
<td>- It is important to remember that exposure to Hydrogen Cyanide and exposure to Carbon Monoxide are two separate clinical entities (An exposure can occur to either individually or to both combined). DO NOT FALL INTO THE TRAP OF ADMINISTERING A CYANOKIT TO AN ISOLATED CARBON MONOXIDE EXPOSURE</td>
</tr>
<tr>
<td>- Consider need for environmental monitoring</td>
<td>- If symptomatic or in cardiac arrest:</td>
<td></td>
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</tr>
<tr>
<td>- Administer Oxygen (O2), minimum 15 L via non-rebreather mask, immediately</td>
<td>○ Draw one complete blood collection kit prior to drug administration, except in arrest.</td>
<td></td>
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</tr>
<tr>
<td>- Assess for signs of Hydrogen Cyanide Exposure:</td>
<td>○ Administer Cyanokit 5 g intravenous over 15 minutes if possible. Dedicated intravenous site required</td>
<td></td>
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</tr>
<tr>
<td>○ Clues to exposure: products of combustion, soot in nose/airway</td>
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<tr>
<td>○ Signs and symptoms of exposure:</td>
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<tr>
<td>- Altered mental status, tremors, seizures, paralysis</td>
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<tr>
<td>- Respiratory distress/arrest</td>
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<tr>
<td>- Hypotension, arrhythmias, cardiac arrest</td>
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C1 SUSPECTED ACUTE CORONARY SYNDROMES (ACS)

**BLS**
- Apply Oxygen (O2) and obtain a baseline set of vital signs
- Assist patient with self-administration of Aspirin (ASA) by mouth if not already done
  - Four 81 mg baby aspirin or
  - One 325 mg tablet

**ALS**
- Assess rhythm and treat dysrhythmias
- Perform 12 lead electrocardiogram (ECG)
- Declare ST Segment Elevation Myocardial Infarction (STEMI) Alert, if indicated
  - Anginal equivalent and
  - ST segment elevation greater than 1 mm in two or more contiguous leads or **Confirmed** new left bundle branch block (LBBB)
- Initiate transport early for ST Segment Elevation Myocardial Infarction (STEMI)
- Transmit 12 lead electrocardiogram (ECG) to receiving facility (Must include patient name and date of birth prior to transmission)
- Establish intravenous access
- Administer **Nitroglycerin** 0.4 mg sublingual, every 3-5 minutes until chest pain/anginal equivalent resolves or when systolic blood pressure (SBP) <90 mmHg
  - If hypotensive:
    - Administer fluid bolus **0.9% Sodium Chloride**
      - 250 mL increments
      - Maximum combined total volume of 2000 mL
    - Goal of the systolic blood pressure (SBP) greater than 110 mmHg
- If unable to achieve chest pain relief with Nitroglycerine, administer Morphine in 2-4 mg increments intravenous, up to a total maximum combined dose of 8 mg

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEA**
- Evidence of an inferior wall myocardial infarction should prompt caution in administration of nitrates.
  - Provider should ensure intravenous access with fluids running, prior to administration of nitrates,
and may consider performing right sided electrocardiogram (ECG) to assess for ST segment elevation in V4R

- Nitrates MUST be withheld if patient has taken:
  - Viagra within 24 hours
  - Levitra or Cialis within 48 hours
- Anginal equivalents include difficulty breathing, syncope, palpitations, unexplained nausea, fatigue, unease, diaphoresis, unexplained jaw, arm, epigastric, or shoulder pain
- Maintain a high index of suspicion in the geriatric population as their complaints are often vague and nonspecific
**C2 BRADYCARDIA**

<table>
<thead>
<tr>
<th>BLS</th>
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|     | - Oxygen (O2) as required  
|     | - Shock position as required |

<table>
<thead>
<tr>
<th>ALS</th>
<th></th>
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</table>
|     | - Oxygen therapy, Establish IV access, Electrocardiogram (ECG) rhythm assessment,  
|     | - Stable, Asymptomatic  
|     |   - Supportive care  
|     |   - 12 lead to assess for ischemia or other abnormalities  
|     |   - Consider underlying causes  
|     | - Stable, Symptomatic (ex. dizziness, difficulty breathing, chest pain, etc.)  
|     |   - Fluid bolus  
|     |   - 12 lead electrocardiogram (ECG) to assess for ischemia or other abnormalities  
|     |   - Atropine 0.5 mg; repeat every 3-5 minutes to a maximum combined dose of 3 mg  
|     | - Unstable (ex Hypotension, Altered Mental Status)  
|     |   - Transcutaneous pacing  
|     |   - Atropine 0.5 mg IV; (may give one dose while setting up pacing, but do not delay pacing )  
|     |   - Midazolam 1-2 mg IV as required for sedation as patient condition permits; may repeat one time after 5 mins as needed |

<table>
<thead>
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<th>OLMC</th>
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|      | - Dopamine infusion 5 - 20 mcg/kg/min  
|      | - Epinephrine infusion 2 - 10 mcg/min (Reference: CT7 Epinephrine Drip Chart)  
|      | - Additional sedation |

<table>
<thead>
<tr>
<th>Pearls</th>
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</table>
|        | - 12 lead electrocardiogram (ECG) should be completed early to rule out an acute myocardial infarction (AMI), but it should not delay treatment if the patient is unstable  
|        | - Generally do not use Atropine in the presence of acute coronary ischemia or an acute myocardial infarction (AMI). An Atropine mediated increase in heart rate may worsen ischemia or increase the size of an infarct  
|        | - Consider the placement of external hands free pacing pads for patients in high grade bradycardias even if they are minimally symptomatic or asymptomatic  
|        | - Atropine may be tried in Mobitz Type 2 or third degree AV block in patients with a new wide QRS complex in the absence of an acute myocardial infarction (AMI) / Ischemia  
|        | - Use lower dose of Midazolam (i.e. 1/2 dose) in patients > 60 years old or with borderline blood pressure |
C3 TACHYCARDIA (WIDE / NARROW)

BLS
- Apply oxygen and obtain a baseline set of vital signs

ALS
- Consider underlying causes
- Assess electrocardiogram rhythm
- Intravenous Access
- Determine stability / instability - persistent tachyarrhythmia causing hypotention, acutely altered mental status, sign of shock, chest discomfort, acute heart failure

Unstable - Wide or Narrow
Pre-medicate with Midazolam 2.5-5 mg IV, if patient condition permits. May repeat one time in 5 minutes if needed

| Narrow or Wide Regular | 100J, 120J, 150J, 170J | Synchronized |
| Narrow Irregular       | 120J, 150J, 170J       | Synchronized |
| Wide Irregular or Polymorphic | 150J | Unsynchronized |

Stable - Narrow
Vagal Maneuvers (excluding carotid Massage)/Fluid Challenge

| Regular | 1. Adenosine 6 mg Rapid IV Push  
2. Adenosine 12 mg Rapid IV Push  
3. If no change: Diltiazem 0.25 mg/kg slow IV push to a max. single 20 mg dose |
| Regular - Hx of atrial fibrillation | Diltiazem 0.25 mg/kg slow IV push to a max. single 20 mg dose |
| Irregular | Diltiazem 0.25 mg/kg slow IV push to a max. single 20 mg dose |
Stable - Wide

<table>
<thead>
<tr>
<th>Vagal Maneuvers (excluding carotid Massage)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regular - Monomorphic</strong></td>
</tr>
<tr>
<td>Amiodarone 150 mg infusion over minimum of 10 minutes. Repeat if tachycardia re-occurs</td>
</tr>
<tr>
<td><strong>Irregular</strong></td>
</tr>
<tr>
<td>Amiodarone 150 mg infusion over minimum of 10 minutes. Repeat if tachycardia re-occurs</td>
</tr>
<tr>
<td><strong>Irregular - Torsades</strong></td>
</tr>
<tr>
<td>Magnesium Sulfate 2 grams IV over a minimum of 10 minutes</td>
</tr>
</tbody>
</table>

- Consult Online Medical Control Physician if needed.

You must quickly determine whether the patient's tachycardia is **primary** (that is producing hemodynamic instability due to the rate) or secondary (that is tachycardia produced as the result of an underlying process such as dehydration, fever, pain, anxiety, drugs, etc.).

Primary tachycardia rates are generally over 150/minute; secondary tachycardia rates are **usually** but not always lower. Ventricular rates <150/minute usually do not cause serious sign or symptoms.

**DO NOT** delay immediate cardioversion for the acquisition of the twelve lead or sedation if the patient is unstable.

- Keys to management:
  - Determine if pulses are present
  - If pulses are present, is the patient stable, borderline unstable or obviously unstable?
  - Provide treatment based on the patient's condition and rhythm. It may be best to monitor the patient versus treat the patient if they are minimally symptomatic.
### BLS
- Apply Oxygen (O2) and obtain a baseline set of vital signs
- Repeat vital signs every 5 minutes
- Place in shock position

### ALS
- Electrocardiogram (ECG) rhythm assessment and treat dysrhythmias.
- Administer **0.9% Sodium Chloride**, 500 mL intravenous bolus. Repeat once as needed.
- Start **Dopamine** intravenous drip
  - Start at 5 mcg/kg/min
  - Titrate effect to systolic blood pressure (SBP) > 90 mmHg
  - Maximum rate 20 mcg/kg/min.
- Perform 12 Lead electrocardiogram (ECG)

### OLMC
- Consult Online Medical Control Physician if needed.

### Pearls
- Destination should be closest PCI facility
C5 MEDICAL CARDIAC ARREST

General cardiac arrest guidelines:
- Establish compression performance resuscitation (CPR) procedure
- If downtime greater than 4 minutes without adequate bystander compression performance resuscitation, perform 2 minutes of compression performance resuscitation prior to initiating rhythm assessment with AED/Monitor
- If downtime less than 4 minutes or adequate bystander compression performance resuscitation is being performed upon arrival, start/continue compression performance resuscitation and immediately initiate rhythm assessment with AED/Monitor and shock if indicated
- Continue compression performance resuscitation and reassess rhythm every two (2) minutes and defibrillate when indicated by AED/Monitor

- Secure airway and establish vascular access as per compression performance resuscitation procedure.
- Defibrillation with MRx at 150J as indicated for ventricular fibrillation or pulseless ventricular tachycardia
- Administer medications as indicated:
  - Asystole/Pulseless Electrical Activity
    - Epinephrine 1 mg intravenous/intraosseous every 3-5 minutes
  - Ventricular Fibrillation/Pulseless Ventricular Tachycardia
    - Epinephrine 1 mg intravenous/intraosseous every 3-5 minutes
    - If refractory, give Amiodarone 300 mg intravenous/intraosseous, then 150 mg intravenous/intraosseous in 3-5 minutes OR
    - If Torsade de Pointes, give Magnesium Sulfate 2 grams intravenous/intraosseous
- Monitor progress of resuscitation using ETCO2

Address potential reversible causes
- Suspected hyperkalemia (dialysis/renal failure, potassium sparing diuretic, potassium supplementation):
  - Sodium Bicarbonate 8.4% (100 mEq) and Calcium Chloride (1 gram) intravenous/intraosseous
- Hypoglycemia: Dextrose 25 grams intravenous/intraosseous
- Overdose: Naloxone 2 mg intravenous/intraosseous
- Cyanide Exposure: Cyanokit - 5 grams intravenous/intraosseous rapid bolus
For other suspected overdose, refer to **M12 POISONING AND OVERDOSE.**
- Suspected tension pneumothorax: perform **CP10 NEEDLE THORACOSTOMY.**

**OLMC**
- Consult for cessation of resuscitation efforts after 20 minutes without response
- Consult for unusual circumstances, or other specific treatment requests.

**PEARLS**

**Reversible causes of cardiac arrest:**
- **H's:** hypoxia, hypovolemia, hypothermia, hydrogen ion acidosis, hypo/hyperkalemia, and hypoglycemia
- **T's:** tension pneumothorax, cardiac tamponade, thrombosis (coronary/pulmonary), and toxins
**BLS**
- Place patient in position of comfort
- Apply Oxygen (O2) and obtain a baseline set of vitals
- Repeat vitals signs every five (5) minutes
- If not hypotensive, assist with one dose of patient's own prescription Nitroglycerin, if available

**ALS**
- Administer **Nitroglycerin** every 3-5 minutes based on patient's systolic blood pressure (SBP):
  - Systolic blood pressure (SBP)>90 mmHG: administer **Nitroglycerin** 0.4 mg sublingual
  - Systolic blood pressure (SBP)>120 mmHG: administer **Nitroglycerin** 0.8 mg sublingual
  - Systolic blood pressure (SBP)>160 mmHG: administer **Nitroglycerin** 1.2 mg sublingual
  - Systolic blood pressure (SBP)<90 mmHG, administer **0.9% Sodium Chloride** 250 mL bolus. May repeat once if needed.
- Initiate **CPAP** unless contraindicated:
  - Systolic blood pressure (SBP) < 90 mmHG
  - Altered mental status
  - Other contraindications
- 12 Lead electrocardiogram (ECG)

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARLS**
- Consider intubation
- Consider cardiogenic shock
- Be vigilant in identifying and treating what is causing the heart failure exacerbation (i.e. AMI, PE, etc.)
- Nitrates MUST be withheld if patient has taken
  - Viagra within 24 hours
  - Levitra or Cialis within 48 hours
**C7 POST MEDICAL CARDIAC ARREST CARE**

**BLS**
- Continue to provide resuscitation in accordance with standard procedures
- Avoid hyperventilation

**ALS**
- Transport patient to percutaneous coronary intervention (PCI) capable facility
- Declare ST Segment Elevation Myocardial Infarction (STEMI) Alert, if indicated
  - Anginal equivalent and
  - ST segment elevation greater than 1 mm in two or more contiguous leads or **Confirmed** new left bundle bunch block (LBBB)
- Initiate transport early in ST Segment Elevation Myocardial Infarction (STEMI) patients
- Transmit 12 lead electrocardiogram (ECG) to receiving facility (Must have name and date of birth)

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARS**
- None
### M1 ABDOMINAL PAIN / NAUSEA AND VOMITING

| B L S | - Assess the abdomen by palpation and visual inspection  
- Obtain orthostatic vital signs if needed |
| A L S | - Establish intravenous access for fluid or medication administration  
- If nauseated and/or vomiting, administer Ondansetron 4 mg intramuscular or slow IVP over at least two (2) minutes or Ondansetron 4 mg ODT p.o. May repeat once in 15 minutes as needed.  
- Administer 0.9% Sodium Chloride 500 mL intravenous bolus, if necessary. Repeat as needed.  
- Administer ONE of the following for ACUTE onset abdominal pain  
  - Fentanyl 1 mcg/kg intravenous to a maximum single dose of 100 mcg. May repeat in 10 minutes to a maximum combined total dose of 2 mcg/kg.  
  - Fentanyl 1.5 mcg/kg intranasal to a maximum single dose of 100 mcg. May repeat in 10 minutes to a maximum combined total dose of 3 mcg/kg.  
  - Morphine 4 mg intravenous. May repeat in 2 mg increments every 3 minutes to a maximum combined total dose of 10 mg. |
| O L M C | - Consult Online Medical Control Physician if needed. |
| P E A R L S | - Perform 12 Lead electrocardiogram (ECG) on patients with upper abdominal pain, as this may be an anginal equivalent.  
- The patient history should include questioning the presence of hematemesis, coffee ground emesis, rectal bleeding, suspected pregnancy, rectal trauma, or recent abdominal trauma.  
- Consider potential underlying causes for nausea/vomiting such as acute coronary syndrome, head trauma, bowel obstruction, pregnancy, drug side effects, etc.  
- Many of the potential side effects of Ondansetron are related to rapid administration of the injectable format |
M2 ALLERGIC REACTIONS AND ANAPHYLAXIS

BLS
- Assess the patient's circulation, airway, breathing, mental status, skin and body
- Apply Oxygen (O2), as needed
- Assist with administration of a patient's Epinephrine autoinjector (EpiPen, EpiPen Jr., Adreadlick, Auvi-Q, Epinephrine Autoinjector), if indicated
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated

ALS
- Anaphylaxis - Moderate to severe allergic reaction - Primary treatment
  - Epinephrine 0.01 mg/kg of 1:1000 (1mg/mL) to a max single dose of 0.5 mg intramuscular in the midanteriorlateral thigh. Repeat once in 5 - 15 minutes.
  - Place patient in shock position
  - Administer 0.9% Sodium Chloride 1 - 2 Liters rapidly (use pressure infusion bag).
  - Regularly assess the patient's blood pressure, cardiac rate and function, respiratory status and oxygenation
- Allergic reaction and Supplemental Anaphylaxis Treatment
  - Administer Diphenhydramine 50 mg intravenous push or intramuscular
  - Administer Albuterol 2.5 mg nebulized, as needed, for wheezing/shortness of breath. May repeat once.
  - Administer Methylprednisolone Sodium Succinate 125 mg intravenous push

OLMC
- Additional doses of intramuscular Epinephrine 1:1000 (1 mg/mL)
  - Epinephrine infusion 1 - 4 mcg/min.
  - Glucagen for patients taking a beta-adrenergic blocker who have hypotension and Bradycardia who do not respond optimally to Epinephrine
  - Atropine for patients taking a beta-adrenergic blocker with persistent Bradycardia
  - Ipratropium for patients with Epinephrine-resistant bronchospasm

PEARLS
- The intramuscular administration of Epinephrine, in Anaphylaxis, should not be delayed by taking the time to draw up and administer second line medications
- Anaphylaxis is highly likely when any ONE of the following three criteria is fulfilled:
  1. Acute onset of an illness (minutes to several hours) with involvement of the skin, mucosal tissue, or both (i.e. generalized urticaria, itching or flushing, swollen lips-tongue-uvula)
AND AT LEAST ONE OF THE FOLLOWING:

- Respiratory Compromise (i.e. dyspnea, wheeze-bronchospasm, stridor, hypoxemia)
- Reduced blood pressure or associated symptoms of end-organ dysfunction (i.e. hypotonia, syncope, incontinence) OR

2. Two or more of the following that occur rapidly after exposure to a likely allergen for that patient (minutes to several hours):

- Involvement of the skin-mucosal tissue (i.e. generalized urticaria, itch-flush, swollen lips-tongue-uvula)
- Respiratory Compromise (i.e. dyspnea, wheeze-bronchospasm, stridor, hypoxemia)
- Reduced blood pressure or associated symptoms (i.e. hyptonia, syncope or incontinence)
- Persistent gastrointestinal symptoms (i.e. crampy abdominal pain, vomiting) OR

3. Reduced blood pressure after exposure to known allergen for that patient (minutes to several hours):

- Adults: blood pressure of less than 90 mmHg or greater than 30% decrease from that person's baseline
### M3 BEHAVIORAL EMERGENCIES

| B L S | • Notify law enforcement if needed and not already dispatched  
• Assess airway, breathing, circulation  
• Obtain vital signs and capillary blood glucose level  
• Attempt to verbally de-escalate the patient prior to consideration of the use of chemical or physical restraints  
• If necessary and you have adequate personnel, place patient in soft or hard restraints, using as minimal force as possible  
• Check extremity pulse, motor, and sensation (PMS) before, after, and every 10 minutes. Do not restrain the patient in the prone position.  
• Assess for underlying medical/traumatic conditions (Diabetes, Hypoxia, ETOH, narcotics, head injury, etc.) |

| A L S | • Obtain intravenous access if able to do so safely  
• If necessary, administer **Midazolam** 2.5 mg slow push intravenous. May repeat one 2.5 mg dose after 5 min if necessary. Do not exceed total combined dose of 5 mg intravenous  
• If unable to safely obtain intravenous access, administer **Midazolam** a total of 10 mg intranasal splitting doses into 5 mg (1 mL) per nare. Do not exceed a single 10 mg dose.  
• If unable to obtain intravenous or intranasal administration, give the patient **Midazolam** 5 mg by intramuscular injection  
• It's mandatory to monitor patients vital signs while maintaining ETC02 < 50 mmHg and a SPO2 > 96% on supplemental oxygen.  
• Continue to assess extremity pulse, motor, sensation and respiratory status throughout transport  
• Consider **Naloxone** administration for suspected overdoses. Administer **Naloxone** 0.4 - 0.8 mg intravenous every 3-5 minutes as needed  
• Destination Selection in Behavioral Health/Primary Psychiatric patients (Baker Acted, overdoses, etc):  
  • **SEVERITY GREEN** should be taken to the closest open Baker Act facility.  
  • **SEVERITY RED** must be taken to the closest appropriate hospital emergency department.  
  • **SEVERITY YELLOW** require consult for transport to a facility other than the closest emergency department. |

| O L M C | • Contact OLMC if additional **Midazolam** is needed  
• Contact OLMC if law enforcement declines to assist with involuntary transport |
- Scene safety is paramount. Maintain situational awareness at all times.
- Accepting Baker Act Facilities: Largo Medical Center Indian Rocks Campus, Morton Plant Hospital (Adult & Pediatric), St. Anthonys Hospital, Bay Pines VA Hospital (veterans only)
- Verbal de-escalation techniques should include explanation of the current situation to the patient, treatment plan and outcome for compliance versus noncompliance using a professional demeanor.
M4 CEREBRAL VASCULAR ACCIDENT (CVA)

**BLS**
- Determine and document (expressed as the specific hour and minutes) the exact “TIME OF ONSET” (i.e. last known normal)
- Document name and phone number of person to witness event
- Initiate Cincinnati Stroke Assessment (FAST)
- Do not apply supplemental oxygen unless hypoxic

**ALS**
- Determine capillary blood glucose level to rule out hypoglycemia as cause of symptoms
- Declare Stroke Alert
  - Positive FAST and MEND exam
  - Onset within the last 4.5 hours
- Initiate rapid transport to closest stroke center
- Establish intravenous access
- Consider secondary intravenous access

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARLS**
- Assess for signs of intracranial hemorrhage (ICH) (i.e. "worst headache", vomiting, unequal pupils, seizure at onset, unresponsive / generalized neurologic changes)
- Elevate head of bed (approximately 30 degrees) for suspected ICH
- Avoid interventions that may lower blood pressure in the setting of a suspected stroke.
### M5 DIABETIC EMERGENCIES

| BLS | If patient is a known diabetic, conscious and able to protect their own airway, administer 15g Oral Glucose or if available, a high sugar drink (e.g. non-diet soda, Gatorade, Powerade, juice).  
|     | Assist ventilations with bag valve mask (BVM) device and appropriate airway adjunct, if indicated  
|     | If patient suspected to be hypoglycemic and has an insulin pump, turn it off or disconnect it |

| ALS | Provide advanced airway management, if indicated  
|     | Determine capillary blood glucose level:  
|     | Hypoglycemia:  
|     | Capillary blood glucose less than 60 mg/dL or if the patient has signs and/or symptoms of hypoglycemia:  
|     | 1. Administer 15 g Oral Glucose if conscious and able to protect their own airway  
|     | 2. Administer 250 mL of D10W intravenous Fluid (250 mL D10W = 25 g) infused wide open or one prefilled syringe of Dextrose 50% (25 g) (via specific formulary administration technique)  
|     | 3. Administer 1 mg of Glucagon intramuscular if Oral Glucose administration is contraindicated, unable to establish intravenous access or the patient has a history of chronic alcohol abuse  
|     | 4. Repeat capillary blood glucose check 5 - 10 minutes after treatment  
|     | May repeat Step #1, #2 or #3, if symptoms are not resolved and the capillary blood glucose level remains less than 60 mg/dL.  
|     | Hyperglycemia:  
|     | If blood glucose greater than 300 mg/dL, administer IV fluid bolus 0.9% Sodium Chloride 500-1000 mL |

| OLMC | Consult Online Medical Control Physician if needed |

| PEARL | If in doubt, it is safer to assume hypoglycemia rather than hyperglycemia  
|       | Do not let the presence of alcohol ingestion confuse the clinical picture. Alcoholics frequently develop hypoglycemia  
|       | Use caution obtaining refusal for transport if the patient is taking long-acting hypoglycemic agent (e.g. |
Lantus, Glyburide (Diabeta))

- Hypoglycemia should be in the differential diagnosis for all neurological and psychiatric patients
<table>
<thead>
<tr>
<th><strong>M6 DROWNING / NEAR DROWNING - ADULT</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BLS</strong></td>
</tr>
<tr>
<td>• Spinal motion restriction, if needed. Use appropriate device for environment.</td>
</tr>
<tr>
<td>• Administer Oxygen (O2), minimum 15 L via non-rebreather mask and support ventilations as needed</td>
</tr>
<tr>
<td>• Remove wet clothing and keep warm</td>
</tr>
<tr>
<td>• Have suction readily available</td>
</tr>
<tr>
<td><strong>ALS</strong></td>
</tr>
<tr>
<td>• Aerosol therapy</td>
</tr>
<tr>
<td>• <strong>Albuterol</strong> 2.5 mg and <strong>Ipratropium</strong> 0.5 mg, may repeat x 1</td>
</tr>
<tr>
<td>• <strong>Albuterol</strong> 2.5 mg, repeat as needed</td>
</tr>
<tr>
<td>• Monitor patient's airway and ventilatory status closely</td>
</tr>
<tr>
<td>• <strong>CPAP</strong> for patients with rales, low Sp02, complaints of shortness of breath or difficulty in breathing</td>
</tr>
<tr>
<td>• Provide <strong>advanced airway management</strong>, if indicated</td>
</tr>
<tr>
<td><strong>OLMC</strong></td>
</tr>
<tr>
<td>• Consult Online Medical Control Physician if needed.</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
</tr>
<tr>
<td>• The long spine board currently in the will float, but will not support a patient</td>
</tr>
<tr>
<td>• Be prepared to an immobilized patient because of the high occurrence of vomiting</td>
</tr>
<tr>
<td>• Drowning alone doesn't meet defined trauma alert criteria</td>
</tr>
<tr>
<td>• Don't delay ventilation/oxygenation for attempts at suctioning foam. <strong>THE PATIENT REQUIRES OXYGEN (O2).</strong></td>
</tr>
</tbody>
</table>
### BLS

- Move patient into an area with shade, air conditioning, air movement, etc.
- Remove excessive clothing
- Provide oral fluids (e.g. cool water, Gatorade, Pedialyte, etc.) without signs of nausea, vomiting or altered level of consciousness
- Apply Oxygen (O2) as needed
- If heat stroke: Begin rapid cooling, but avoid hypothermia (shivering)
  - Apply ice packs to neck, armpits, and groin
  - As a last resort, cover patient(s) with cool wet sheets
  - Prepare for rapid transport

### ALS

- If hypotensive and/or tachycardic.
  - Administer a bolus of 0.9% Sodium Chloride
    - 500 mL increments
    - Maximum combined total volume of 2000 mL
- If nauseated and/or vomiting, administer Ondansetron 4 mg intramuscular or slow intravenous push over at least two (2) minutes or Ondansetron 4 mg ODT p.o. May repeat once in 15 minutes as needed.
- Monitor for seizures and treat per protocol

### OLMC

- Consult Online Medical Control Physician if needed.

### Pearls

- If the patient starts to shiver, the cooling process should be slowed, as shivering will increase the core temperature of the body
- Tricyclic antidepressants, Phenothiazine's, Anticholinergic medications, Alcohol, Cocaine, Ectasy, Amphetamines, and Salicylates may elevate body temperatures
- Heat Stroke is a neurological event and rapid assessment, treatment and transport is essential for good patient outcome
### M8 COLD EMERGENCY

| BLS | - Remove the patient from the cold environment.  
|     | - Remove wet clothing and gently dry the skin by patting, not rubbing, with dry towels.  
|     | - Initiate rewarming with blankets on top of and underneath the patient; insulate the patient from the ground, backboard/scoop, or stretcher. Apply hot packs in the axilla and groin. DO NOT ALLOW HOT PACKS DIRECT SKIN CONTACT  
|     | - Apply Oxygen (O2) as needed |
| ALS | - Do not delay transport to initiate an intravenous access  
|     | - Assess cardiac rhythm and function and treat as needed |
| OLMC | - Consult Online Medical Control Physician if needed. |
| PEARLS | - Peripheral intravenous access may be difficult to establish in a hypothermic patient  
|       | - Extended exposure to a patient's environment (e.g. water, air, and ground/floor) even in normal temperatures can cause the loss of body heat  
|       | - Elderly patients often have less subcutaneous fat for insulation or may be taking medications that inhibit the body's ability to withstand temperature extremes  
|       | - Alcohol or drug use can increase the risk of cold-related emergencies |
**BLS**
- Maintain open airway and assist ventilations as needed. Administer oxygen as clinically indicated.
- Obtain appropriate history including gravidity, parity, length of gestation, estimated date of delivery, prior C-sections, prior obstetrical or gynecological complications, prenatal care, maternal medical history.

**ALS**
- Determine capillary blood glucose and treat per protocol
- Initiate IV 0.9% Sodium Chloride (KVO). If systolic blood pressure is less than 100, administer 250 mL bolus and titrate to patient's hemodynamic status.
- Cardiac monitor and 12 Lead electrocardiogram (ECG) if clinically indicated. Treat dysrthmias per protocol.
- Maintain pulse oximetry 95%
- ETCO2
- Transport in left lateral recumbent position. Maintain quiet environment
- If seizure occurs (Eclampsia):
  - Magnesium Sulfate 4 g mixed in 100 mL bag Dextrose 5% in water infused over 10 – 20 minutes. Monitor for respiratory depression and hypotension.
  - If seizure persists after 2 to 3 minutes, with initiation of Magnesium Sulfate infusion, then administer Diazepam or Midazolam per protocol M14 Seizures.
  - Transport to closest obstetrical receiving facility, unless actively seizing.
- Treat other threatening conditions as they are identified.

**OLMC**
- Consult OLMC for initiation of Magnesium Sulfate prior to seizing patients presenting with severe hypertension and other signs of pre-eclampsia

**PEARLS**
- Pre-eclampsia/eclampsia (seizures)
  - Disease of unknown origin
  - Usually occurs after the 20th week of gestation and may occur up to two weeks post-partum
  - Seizure with no prior history of seizure disorder is more likely to be eclampsia
  - Signs and symptoms of preeclampsia include headache, vision changes, right upper quadrant pain, peripheral edema, proteinuria (dark colored urine) and hypertension
- Consider other underlying etiology such as hypoglycemia, drug overdose, head injury or fever / infection
- Maintain a quiet environment during transport to decrease stimulation and excitability which can lower the seizure threshold
- Anticipate need for body substance isolation precautions.
- Administer oxygen as clinically indicated.
- Obtain appropriate history including gravidity, parity, length of gestation, estimated date of delivery, prior C-sections/complications, prenatal care, maternal medical history, and any indication of “High-Risk” classification by physician.
- Assess for presence of contractions, length of time between contractions, presence/absence of membrane rupture, and presence/absence of vaginal bleeding.
- Visual inspection of perineum is mandatory if contractions are present and regular in an obviously pregnant female to determine if delivery is imminent (i.e. crowning). If delivery is imminent, prepare for and assist with delivery per clinical procedure (CP19 NORMAL CHILDBIRTH PROCEDURES.htm)
- If in active labor, but not crowning, initiate rapid transport to closest obstetrical receiving hospital.

Abnormal Presentation / Emergencies:

- **Prolapsed Umbilical Cord**
  - Elevate patient’s hips, place in shock or knee-chest position in order to relieve pressure on the cord.
  - Coach patient to breathe through contractions and NOT push. Elevate the presenting part to relieve pressure on the cord. Do not attempt to reposition the cord.
  - Maintain hand position and expedite transport.

- **Breech Presentation**
  - Place patient in knee-chest position
  - Expedite transport

- **Failure of baby to deliver fully:**
  - Hyperflex hips, apply mild suprapubic pressure
  - Trial push with patient in all 4’s position
  - If not delivered in 1-2 min with above, Expedite transport to closest OB receiving hospital.

- Initiate IV 0.9% Sodium Chloride (KVO). If systolic blood pressure is less than 100, administer 250 mL bolus and titrate to patient’s hemodynamic status.
### OLMC
- Consult Online Medical Control Physician if needed.

### PEARLS
- Primary role for EMS is to determine whether the delivery will occur on scene.
- Digital vaginal exams are NOT to be performed unless providing a critical intervention during the birthing process as listed above.
- Patients with history of multiple births will typically progress quicker through labor.
- If presenting part is an extremity, anticipate difficult delivery and expedite transport.
**M12 POISONING AND OVERDOSE**

**BLS**
- Avoid exposure to EMS personnel
- Consider fire or hazmat response as indicated
- If cutaneous exposure - decontaminate as appropriate
- Careful attention and assessment of respiratory status with appropriate intervention
- Apply Oxygen (O2) as needed
- Search for causes and/or clues at the scene

**ALS**
- ALS monitoring
- Airway protection as needed (CP1 ADULT AIRWAY MANAGEMENT AND ADVANCED AIRWAY PLACEMENT)
- IV with 0.9% Sodium Chloride
- Determine capillary blood glucose level
- The following table is for patients experiencing acute signs and symptoms related to a toxic ingestion or withdrawal of a specific medication or substance:

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### TOXIDROMES

<table>
<thead>
<tr>
<th>Class</th>
<th>Signs and Symptoms</th>
<th>Agents</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sympathomimetics</td>
<td>Agitation, Seizures, Nystagmus, Tachycardia, Hypertension, Diaphoresis, Pallor, Cool Skin, Fever</td>
<td>Amphetamines, Phenethylline, Cocaine, Methamphetamine, PCP, Theophylline, Caffeine, Catecholamines, Ketamine</td>
<td>Diazepam 2.5 - 5 mg intravenous or intramuscular or if violent - Midazolam 2.5 mg intravenous, 5 mg intramuscular or 10 mg intranasal (1 mL per nare)</td>
</tr>
<tr>
<td>Cholinergics</td>
<td>(DAWNBELLS) - Diarrhea, Urination, Miosis, Bradycardia, Bronchorrhea, Emesis, Leukorrhea, Salivation,</td>
<td>Organophosphates, Pesticides, Carbamates, Nerve Agents</td>
<td>Atropine 2 mg intravenous every 1 - 2 minutes until secretions dry (Contact OLIC for NAAK utilization)</td>
</tr>
<tr>
<td>Opioids</td>
<td>Respiratory Depression, Coma, Miosis, Bradycardia, Hypotension, Constipation</td>
<td>Morphine, Methadone, Codeine</td>
<td>Naloxone 0.4 - 0.8 mg intravenous, Titrated to effect a combined total dose of 2 mg or Naloxone 2 mg (1 mg/mL) intranasal - 1 mL per nare - onset 3.5 minutes</td>
</tr>
<tr>
<td>Anticholinergics</td>
<td>Agitation, Delirium, Coma, Mydriasis, Dry Mouth, Flushed Skin, Tachycardia, Hypertension, Fever, Urinary Retention, &quot;I'M AS A HATTER, BLOOD AS A BAT, READ AS A BEET&quot;</td>
<td>Anticholinergics, Atropine, Carbamazepine, Cyclizine, Antidepressants, Jaxon Weed, Oxybutynin, Phenothiazines, Scopolamine</td>
<td>Diazepam 2.5 - 5 mg intravenous or intramuscular or if violent - Midazolam 2.5 mg intravenous, 5 mg intramuscular or 10 mg intranasal (1 mL per nare)</td>
</tr>
</tbody>
</table>

### SPECIFIC WITHDRAWAL/MEDICATION REACTIONS

<table>
<thead>
<tr>
<th>Acute Withdrawal (alcohol/benzodiazepines)</th>
<th>Shakiness, Chills, Tremors, Anxiety, Stress, Depression, Vomiting, Mood Swings, Sweating, Pale, Tachycardia, Seizures, Confusion, Psychosis</th>
<th>Withdraw from Alcohol, Benzodiazepines</th>
<th>Diazepam 2.5 - 5 mg intravenous or intramuscular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Dystonic</td>
<td>Involuntary Muscle Contractions - begin in a single area such as foot, hand or neck, May worsen with stress, fatigue or anxiety</td>
<td>Antipsychotics, anesthetics, and antidepressants most common; Alcohol and cocaine increase risk</td>
<td>Diphenhydramine 50 mg intravenous or intramuscular - Diazepam 2.5 - 5 mg intravenous or intramuscular</td>
</tr>
</tbody>
</table>
Miscellaneous:
- Oleoresin Capsicum (OC)/Pepper Spray (treatment based on extent of exposure)
  ○ Symptoms are usually self-limiting and time is part of treatment
  ○ Move to area with fresh air
  ○ Utilize a fan to move air across patient
  ○ Calm the patient
  ○ Remove contact lenses
  ○ Remove and bag any contaminated clothing
  ○ Flush with copious amounts of the coldest water possible (monitor for signs of hypothermia). Use mild soap (oil free) if available
- Destination Selection in Behavioral Health/Primary Psychiatric patients (Baker Acted, overdoses, etc):
  ○ SEVERITY GREEN should be taken to the closest open Baker Act facility.
  ○ SEVERITY RED must be taken to the closest appropriate hospital emergency department.
  ○ SEVERITY YELLOW require consult for transport to a facility other than the closest emergency department.

Organophosphates:
- Authorization to use autoinjector kits

Anticholinergics (with widened QRS):
- Diphenhydramine and other antihistamines = Sodium Bicarbonate 1 mEq/kg IV

Miscellaneous:
- Tricyclic antidepressants (with widened QRS) = Sodium Bicarbonate 1 mEq/kg IV.

Drug identification resources:
- Poison control 1-800-222-1222
- EMS Field Guide
- Smart phone apps (Epocrates, iPharmacy, Micromedex drip information)
- Search for clues utilizing Material Safety Data Sheet (MSDS), empty pill bottles, evidence at scene and bring anything available to ER

Differential diagnosis (altered mental status):
- Intracranial mass/bleeding, CVA, infection/sepsis
- Endocrine abnormalities, Hypo/hyperthermia, Hypoxia
- Metabolic abnormalities, Hypoglycemia, Psychogenic
**M13 ACUTE PAIN MANAGEMENT**

<table>
<thead>
<tr>
<th>BLS</th>
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<tbody>
<tr>
<td>Allow patient to assume position of comfort unless spinal motion restriction required.</td>
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<table>
<thead>
<tr>
<th>ALS</th>
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</thead>
<tbody>
<tr>
<td>Establish intravenous access</td>
</tr>
<tr>
<td>Apply capnography cannula</td>
</tr>
<tr>
<td>Monitor pulse oximetry</td>
</tr>
<tr>
<td>Administer ONE of the following:</td>
</tr>
<tr>
<td>- Fentanyl 1 mcg/kg intravenous to a maximum single dose of 100 mcg. May repeat in 10 minutes to a maximum combined total dose of 2 mcg/kg.</td>
</tr>
<tr>
<td>- Morphine 4 mg intravenous. May repeat in 2 mg increments every 3 minutes to a combined total dose of 10 mg.</td>
</tr>
<tr>
<td>- Fentanyl 1.5 mcg/kg intranasal to a maximum single dose of 100 mcg. May repeat in 10 minutes to a maximum combined total dose of 3 mcg/kg.</td>
</tr>
<tr>
<td>If nauseated and/or vomiting as a result of an opioid administration, administer Ondansetron 4 mg slow IVP over at least two (2) minutes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OLMC</th>
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<tbody>
<tr>
<td>Additional Fentanyl or Morphine</td>
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<table>
<thead>
<tr>
<th>PEARLS</th>
</tr>
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<tbody>
<tr>
<td>The objective of pain management is not the complete removal of pain. It should make the pain tolerable to the patient.</td>
</tr>
<tr>
<td>Respiratory depression and apnea can occur without warning. This is more frequent in the geriatric population.</td>
</tr>
<tr>
<td>The co-administration of opioids and benzodiazepines should be avoided, as it increases the risk of adverse events (e.g. respiratory depression)</td>
</tr>
<tr>
<td>Exercise caution with the administration of analgesics when the EtCO2 level acutely increases above 50 mmHg</td>
</tr>
<tr>
<td>Fentanyl is preferred in trauma due to the reduced cardiac effects.</td>
</tr>
</tbody>
</table>
### M14 SEIZURES

**BLS**
- Protect patient from injury if actively seizing
- Oxygen, minimum 15L via non-rebreather mask, for patients actively seizing or postictal
- Have suction readily available
- Spinal Motion Restriction as needed
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated
- If patient suspected to be hypoglycemic and has an insulin pump, turn it off or disconnect
- Assist with the administration of the patient’s emergency seizure medication, if available (i.e. Distat)
- Consider etiology of seizure

**ALS**
- Initiate intravenous access
- Determine capillary blood glucose and treat per protocol
- Pharmaceutical treatment:
  - **Diazepam**: 5 mg intravenous. May repeat twice for continued seizure activity to a maximum combined dose of 15 mg
  - **Midazolam**:
    - 0.1 mg/kg intravenous or intramuscular - maximum single dose 5 mg - May repeat x 1 with continued or repeat seizure activity
    - 0.1 mg/kg intranasal - maximum single dose 10 mg (no more than 1 mL of drug per nare) - May repeat x 1 with continued or repeat seizure activity
- Electrocardiogram and ETCO2 monitoring if benzodiazepine administered

**OLMC**
- Administration of medication for atypical seizures
- Pharmaceutical treatment above stated dosing

**PEARLS**
- Request Law Enforcement for any patient who was driving prior to a seizure
- A State of Florida Department of Highway Safety and Motor Vehicle Driver Impairment form is to be completed if law enforcement not on scene
### BLS
- Obtain a baseline set of vital signs and assess for shock
- If signs of shock, place patient in lateral recumbent position (to prevent aspiration) and Trendelenburg
- Apply Oxygen (O2), as needed
- Determine and document history of anticoagulant medication

### ALS
- Establish intravenous access (large bone)
- Treat for hypovolemic shock if present
  - Administer a bolus of **0.9% Sodium Chloride**
    - 500 mL increments
    - Maximum combined total volume of 2000 mL
  - Goal is systolic blood pressure (SBP) > 90 mmHg
- Perform 12 lead electrocardiogram (ECG) to assess for cardiac ischemia
- If nauseated and/or vomiting, administer **Ondansetron** 4 mg slow intravenous push over at least two (2) minutes

### OLMC
- Consult Online Medical Control Physician if needed.

### Pearls
- **Aspirin** is contraindicated in patients who have a suspected gastrointestinal hemorrhage
- An **orogastric tube** is not to be placed unless an advanced airway is in place
- CPAP is contraindicated in GI Bleed
- It is important to inform receiving hospital of anticoagulation use. Remember there are several new anticoagulants in addition to Coumadin, Plavix, Aspirin and Lovenox (Pradaxa, Xarelto, Brilinta, etc)
- GI Bleeds are often caused by liver cirrhosis, alcohol abuse, use of ASA or NSAIDS, recent severe vomiting, esophageal and gastric varices, peptic ulcers, angiodysplasia, Crohn's disease/ulcerative colitis, polyps, diverticulitis, internal hemorrhoids
T1 General Trauma Care

Goals of Care

- Accurate assessment, appropriate stabilization, and rapid transport to definitive care

BLS

- Perform Primary Trauma Assessment (ABCDE) and implement initial treatments as needed:
  - Open Airway (BLS maneuvers), provide oxygen and assist ventilations at 12 breaths per minute with bag-valve-mask (BVM) device and appropriate airway adjunct
  - Control hemorrhage with direct pressure followed by appropriate device or procedure when indicated – Reference CP16 and CP24
  - Seal chest wounds – Reference CP23
  - Assess neurologic function and implement SMR as indicated – Reference CP8
  - Expose patient and protect from environment
- Assess trauma transport criteria, Declare "Trauma Alert" if indicated - Reference CT12
- Initiate rapid transport to appropriate facility – Reference CS5 and CS20
- Perform Secondary Trauma Assessment (head-to-toe physical exam on exposed skin)
- Implement additional appropriate stabilizing care – Reference T5, T9 – T11
  - Stabilize impaled objects in place – DO NOT REMOVE
  - Stabilize Flail Chest Segments
  - Dress wounds - Moist Sterile for Eviscerations, Dry and clean for Burns
  - Amputated body parts – Moist sterile inner packaging, ice/cold pack outer packaging
- Splint Fractures and Dislocations and document distal motor function, circulation, and sensation before and after; Elevate and apply cold packs when practical

ALS

- Except in cases of delayed transport (e.g. entrapment), the only ALS interventions allowed prior to transport are CP1 Airway Management if BLS maneuvers fail, and CP10 Needle Thoracostomy as part of a paramedic level Primary Trauma Assessment and Treatment
- Maintain ETCO2 of 35-45 mmHg. (Hyperventilation to 30-35 mmHg allowed ONLY with signs of ACTIVE herniation – see PEARLS next page)
- Establish IV/IO Access and initiate Fluid Resuscitation with 0.9% Sodium Chloride in 500 mL increments to target and maximum as indicated on next page:
Consult Online Medical Control Physician as needed and for:
- Replant services – Reference CS15
- Crush and Compartment Syndrome management

**Quality Measures**

1. Scene Time less than 10 minutes (Sunstar) or Trauma Alert time less than 5 min (FD)
2. Oxygen delivered
3. IV Established
4. Trauma Alert Called if Indicated
5. SMR employed (Track/Trend only)
<table>
<thead>
<tr>
<th>References</th>
</tr>
</thead>
</table>
## T2 Traumatic Cardiac Arrest

### Goals of Care

- Quality CPR, treat reversible causes, and rapid transport to nearest hospital ER

### BLS

- Perform Primary Trauma Assessment (ABCDE) and implement initial treatments as needed:
  - Open Airway (BLS maneuvers), provide oxygen and assist ventilations at 12 breaths per minute with bag-valve-mask (BVM) device and appropriate airway adjunct
  - Initiate chest compressions
  - Control hemorrhage with direct pressure followed by appropriate device or procedure when indicated – Reference CP16 and CP24
  - Seal chest wounds – Reference CP23
  - Implement SMR as indicated – Reference CP8
  - Expose patient and protect from environment
- Declare "Trauma Alert" - Reference CT12

### ALS

- Ensure airway control – Reference CP1 and CP6
- Perform bilateral Needle Thoracostomy if any evidence of chest trauma – Reference CP10
- Establish IV/IO Access and initiate Fluid Resuscitation with 2 L - 0.9% Sodium Chloride
- Assess patient for underlying or co-morbid medical conditions and initiate appropriate pharmacologic and electrical ACLS treatment as per C5
- Repeat Primary Trauma Assessment (ABCDE) after treatments and frequently during transport

### OLMC

- Consult Online Medical Control Physician as needed

### PEARLS

- Resuscitation must be attempted in all cases unless the patient is confirmed pulseless and apneic on arrival (i.e. no signs of life) and meets the specific criteria listed in CS7
EMS Providers may elect to perform resuscitative efforts on trauma arrest patients for a variety of reasons, including scene safety concerns, even though the patient meets criteria for withholding resuscitative efforts.

ACLs is secondary to addressing reversible causes in traumatic arrest.

A Traumatic Cardiac Arrest patient should be transported to a hospital based ER.

Refer to CS 21 for alterations in standard of care during Major Incidents with Ongoing Threats (e.g. Active Shooter Response).
T5 EYE INJURY

BLS
- Collect information regarding mechanism of injury or type of exposure
- Assess for pain, loss of vision and eye muscle function (side-to-side and up-and-down eye motion)
- Encourage and assist patient to remove contact lenses if possible
- If surface foreign body or chemical exposure is suspected, initiate continuous irrigation with Sterile Water
- If impaled object is present, DO NOT remove it. Secure as noted. Transport patient in upright position if possible
  ○ Securing an impaled object:
    ■ Place a roll of gauze bandage or folded gauze on either side of impaled object along the vertical axis of the head. The rolls or pads should be placed so they stabilize the object
    ■ Fit a paper or styrofoam cup or other protective cone over the impaled object. The protective cup should not touch the impaled object, but rest upon the rolls/pads of gauze
    ■ Secure the dressing and cup in place with wrapping of gauze
    ■ DO NOT secure bandage over the top of the cup
    ■ Patch and bandage the uninjured eye to reduce eye movement

ALS
- **Tetracaine** 0.5% - 1 - 2 drops to affected eye. May repeat one time in 5-10 minutes (contraindicated for impaled object / penetrating trauma)
- Begin irrigation immediately for exposure to foreign substance with 0.9% Sodium Chloride using 1 to 2 liters. (May use nasal cannula on bridge of nose)
- IV/IO with 0.9% Normal Saline KVO
- **Pain management** per protocol

OLMC
- Consult Online Medical Control Physician if needed.

PEARLS
- The over use of Tetracaine can cause severe corneal damage and/or blindness. Do not allow patient to keep the bottle.
### T9 Bites and Stings

**Stingray:**
1. Control any active bleeding with pressure over wound
2. Apply hot pack to wound, or if available submerge injured extremity in hot water (as hot as is tolerable to patient)
3. Assess for remnants of barb remaining in wound (DO NOT remove)
4. Clean and dress wound appropriately

**Jellyfish/Man-o-War:**
1. AVOID SELF-CONTAMINATION
2. Remove stinging cells by scraping with rigid edge (i.e. credit card)
3. Rinse thoroughly with seawater or 0.9% Sodium Chloride fluid
4. Apply copious amounts of rubbing alcohol

**Snakebites:**
1. Attempt to identify species of snake (DO NOT attempt to capture/kill)
2. Remove all constricting clothing/jewelry from affected extremity
3. Mark area of envenomation to track progression
4. Maintain affected extremity at or below level of heart
5. Splint affected extremity in neutral position

**Insect Stings:**
1. Attempt to identify species of insect, if possible
2. Remove visible stinger via rigid edge (i.e. credit card). DO NOT use tweezers/forceps
3. Apply icepack to injury site

**Monitor for signs of allergic reaction/anaphylaxis** (refer to Allergic Reactions and Anaphylaxis protocol)
- Consider need for pain management. Refer to Pain Management protocol

**Consult Online Medical Control Physician if needed.**

**Snakebites:**
- Contact for appropriate destination (antivenin)
**Stingray:**
- Consider adding soap or ammonia to hot water, if available

**Jellyfish/Man-o-War or Insect Stings:**
- Consider applying paste of baking soda or flour and water to wound site, if available

**Snakebites:**
1. Do not apply tourniquet or use cold pack
2. If snake is dead/destroyed prior to EMS arrival, transport snake with patient in a closed container, or take a photo of snake
### T10 BURNS

#### BLS
- Thermal burns - Stop the burning process. Remove any burning clothes and cool the burned area for two minutes
- Chemical burns - Stop the burning process. If possible, brush off the chemical, and flush with copious amounts of water
  - Consider Hazmat Team consult or response
- Cover the burns with a clean dry dressing. Keep the patient warm
- Monitor the patient's airway for possible thermal injuries - Burns around the nose and/or mouth, soot in the mouth or nose, singed nasal hairs, intraoral swelling, hoarseness of voice, visible pharyngeal swelling and/or stridor
- Evaluate for other signs of trauma. Evaluate the patient's burns using the **rule of nines** to determine the need for a burn and/or trauma center.

#### ALS
- Be prepared for immediate airway intervention if there are signs of an airway burn and/or edema
- Monitor for cardiac dysrhythmias
- Intravenous fluid resuscitation at 20 mL/kg to a maximum of 2 liters
- Aggressive pain management
- Consider Cyanokit treatment if the patient was exposed to products of combustion along with an altered level of consciousness and/or abnormal vital signs
- Adults:
  - For a 2nd and/or 3rd degree burn with a total body surface area (TBSA) greater than 15%, along with multi system trauma, declare trauma alert and transport to the closest trauma center unless the Burn Center at Tampa General Hospital is closer or equal distance by ground or air
  - Any 2nd and/or 3rd degree burns to high risk areas, such as the face/airway, hands, feet, perineum or circumferential burns to the chest or extremities, transport to the Burn Center at Tampa General Hospital
  - For an isolated 2nd and/or 3rd degree burn with a total body surface area (TBSA) greater than 15%, declare trauma alert and transport to the Burn Center at Tampa General Hospital

#### OLMC
- Consult Online Medical Control Physician if needed.
PEARLS

- None
### T11 BAROTRAUMA / DIVING INJURIES

**BLS**
- Obtain and document a thorough dive history
  - Maximum depth and length of dives
  - Number of dives in the last 48 hours
  - Any air travel in last 24 hours
  - Type of compressed air (Oxygen (O2), Helium, Nitrogen, Argon)
  - Was there a rapid ascent or any other emergencies under water
- Administer Oxygen (O2), minimum 15 L via non-rebreather mask and support ventilations as needed
- Assess for other traumatic injuries
- Remove wet clothes, keep the patient warm
- Position patient in position of comfort for mild injuries and more serious injuries should be laid flat supine

**ALS**
- Obtain electrocardiogram, capnography and pulse oximetry
- Protect the airway as needed with suction readily available
- Intravenous access with fluids to rehydrate, bolus 500 mL NS increments to max of 20 mL/kg or 2 liters
- Pain management as needed (these injuries are very painful)
- Administer Aspirin 324 mg by mouth
- If nauseated and/or vomiting is present, administer Ondansetron 4 mg intramuscular or slow intravenous push over at least 2 minutes or Ondansetron 4 mg ODT by mouth. May repeat in 15 minutes as needed
- Perform a 12 Lead electrocardiogram (ECG) to assess for a gas embolism AMI
- Treat cardiac arrest per protocol

**OLMC**
- Consult Online Medical Control Physician for destination questions, if needed

**PEARL**
- Signs and symptoms can occur while diving and up to 48 hours afterwards
- Barotrauma
  - Pneumothorax, Mediastinal Emphysema - shortness of breath, negative lung sounds or diminished. Interview patient for any breath holding on ascent during dive, even for 6-10 ft could cause it. Good examination to determine if an isolated injury or multisystem involvement
  - Ears - ruptured ear drum, vertigo, ringing in the ears (tinnitus), partial deafness, nausea/vomiting.
Good examination to determine is an isolate injury or multisystem involvement

- Decompression sickness
  - “The bends” Gas embolisms - depending on where the embolism stops determines the symptoms. In most cases the patient will have joint pain, less common would be headache and visual problems. On rare but possible occasions look for pulmonary (a P.E.), cardiac (MI, arrhythmias), and stroke symptoms

- Per DAN (Divers Alert Network) **919-684-9111** - The closest emergent hospital with a hyperbaric chamber are Florida Hospital in Orlando (**1-800-824-0085**), and Lee Memorial Hospital in Ft Myers (**239-343-0454**)

- Note: Lee Memorial is emergent use but for stable, non-intubated, and patients not on drips

- Bring the patients diving gear if possible

- Mediastinal Emphysema poses little risk to the patient and can't be treated in the field except high flow Oxygen (O2)
P1 UNIVERSAL APPROACH TO PEDIATRIC CARE

BLS
- Wear all necessary PPE
- Bring all equipment that you anticipate needing (e.g. suction, Handtevy Pediatric bag)
- Vital signs a minimum of every 15 minutes for stable patients
- Vital signs a minimum of every 5 minutes for unstable/potentially unstable patient
- Use the Handtevy Pediatric length based system for age/weight estimation unless caregivers can provide a recent accurate age/weight
- An appropriate patient restraint device **MUST** be used (i.e. PEDIMATE, car seat), for all patients who are not transported in SMR. **Patients are not to be transported in the arms of a caregiver!!**

ALS
- Cardiac monitor & pulse oximetry - all patients that require ALS care and/or monitoring
- Consider ETCO2 as appropriate
- Intravenous or Intraosseous access should be established on all patients that are unstable, potentially unstable or require intravenous medication administration.
- All medications, fluids and electrical therapy shall be dosed according to the current version of the Pinellas County EMS Handtevy Medication Guidebook.
- All medical equipment will be sized according to the established Pinellas County EMS Handtevy Pediatric Bag inventory.
- Intubation should be attempted only when bag-valve-mask (BVM) device ventilation with airway adjuncts is ineffective.

OLMC
- Consult Online Medical Control Physician if needed.

PEARLS
- Vital signs include heart rate, respiratory rate, central capillary refill time (chest or abdomen) for a pediatric patient
- Every effort should be made to obtain a blood pressure in a patient less than 3 years old, even though it may be difficult. It may be deferred to avoid further agitation of the patient.
P2 ALTERED MENTAL STATUS

BLS
- Maintain cervical spine if trauma is known or suspected and immobilize per protocol
- Administer Oxygen (O2) minimum 15 L via non-rebreather mask
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated
- If patient's temperature is high or low and is at risk for heat or cold exposure refer to hypothermia or hyperthermia protocols

ALS
- Assess for and treat cardiac dysrhythmias
- Determine capillary blood glucose level and treat according to diabetic emergencies protocol
- Establish intravenous or intraosseous access (intraosseous ONLY if vital signs are unstable, medications or fluids need to be administered, and intravenous access is unable to be established)
- Administer 0.9% Sodium Chloride bolus intravenously for a patient with signs and symptoms of poor perfusion. May repeat twice.
- Administer Naloxone intravenously, intraosseously, intramuscularly, intranasally for patients with suspected opioid overdose and are unable to protect their own airway and/or has ineffective respirations. May repeat in 3 - 5 minutes if respiratory depression continues
- Consider advanced airway ONLY if patient is unable to protect his own airway and immediately reversible causes have been treated (hypoglycemia, narcotic ingestion, dehydration, seizure management) and ventilations with abag-valve-mask (BVM) are ineffective

OLMC
- Consult Online Medical Control Physician if needed.

PEARLS
- Altered mental status is an abnormal state in which the child is less alert and interactive than is normal for the patient. It can range from irritability to total unresponsiveness. The caregiver's concern may be vague. Listening to the caregiver's opinion about alteration from a child's norm is key to your assessment
- Accidental ingestion of household products, medication, or a foreign body is very common in young children (especially when they are in a non-child proofed environment). Always consider an accidental ingestion in a pediatric patient with unexplained altered mental status
- Use Naloxone cautiously in an infant patient with a history of maternal drug addiction.
## P3 ALLERGIC REACTION AND ANAPHYLAXIS

### BLS
- Assess the patient's circulation, airway, breathing, mental status, skin and body
- Supplemental Oxygen (O2), if indicated
- Assist with administration of the patient's Epinephrine autoinjector (EpiPen, EpiPen Jr., Adreaclick, Auvi-Q, Epinephrine Autoinjector) in the mid anterolateral thigh, if indicated
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated

### ALS
- Anaphylaxis - Moderate to severe allergic reaction - Primary treatment
  - **Epinephrine** 1:1000 intramuscularly in the midanterior lateral thigh. Repeat once in 5 - 15 minutes.
  - Place patient in shock position
  - Initiate Oxygen (O2) minimum 15L via non-rebreather mask
  - Administer **0.9% Sodium Chloride** rapid bolus intravenously (use pressure infusion bag). May repeat twice.
  - Regularly assess the patient's blood pressure, cardiac rate and function, respiratory status and oxygenation
- Allergic reaction - Mild and Secondary treatment for Anaphylaxis
  - Administer **Diphenhydramine** intavenously or intramuscularly
  - Administer **Albuterol** nebulized, as needed, for wheezing/shortness of breath. May repeat once.
  - Administer **Methylprednisolone Sodium Succinate** intravenously over several minutes

### OLMC
- Additional doses of intramuscular 1:1000 Epinephrine
- **Ipratropium** mixed with **Albuterol** nebulized for a patient with Epinephrine-resistant bronchospasm

### Pearls
- The intramuscular administration of **Epinephrine** 1:1000, in anaphylaxis should not be delayed to administer second line medications
- Anaphylaxis is highly likely when:
  1. Acute onset of an illness (minutes to several hours) with involvement of the skin, mucosal tissue, or both (i.e. generalized urticaria, itching or flushing, swollen lips-tongue-uvula) AND AT LEAST ONE OF THE FOLLOWING:
Respiratory Compromise (i.e. dyspnea, wheeze-bronchospasm, stridor, hypoxemia)
Reduced blood pressure or associated symptoms of end-organ dysfunction (i.e. hypotonia, syncope, incontinence) OR

2. Two or more of the following occur rapidly after exposure to a likely allergen for the patient (minutes to several hours):

- Involvement of the skin-mucosal tissue (i.e. generalized urticaria, itch-flush, swollen lips-tongue-uvula)
- Respiratory Compromise (i.e. dyspnea, wheeze-bronchospasm, stridor, hypoxemia)
- Reduced blood pressure or associated symptoms (i.e. hypotonia, syncope or incontinence)
- Persistent gastrointestinal symptoms (i.e. crampy abdominal pain, vomiting)

3. Reduced blood pressure after exposure to known allergen for that patient (minutes to several hours):

- Infants and children: low systolic blood pressure (age-specific) or greater than 30% decrease in systolic blood pressure
### P4 APPARENT LIFE THREATENING EVENT (ALTE)

**BLS**
- Obtain and document a full history including gestational age and problems during pregnancy/delivery
- Perform full head to toe assessment on bare skin
- Treat any identifiable conditions
- Transport to most appropriate facility

**ALS**
- Electrocardiogram (ECG) rhythm assessment
- Monitor pulse oximetry
- Determine capillary blood glucose level and treat according to diabetic emergencies protocol
- Search for any abnormal history/exam findings that may reveal underlying cause of episode
- Refer to appropriate protocol with any findings

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARLS**
- ALTE is SERIOUS!
  - 50% of infants with ALTE are found to have an underlying medical condition
  - 1 in 10 infants with ALTE require ICU admission
  - 7% of infants that die of SIDS have a history of ALTE
- Apparent Life Threatening Event (ALTE) is defined as an episode that is frightening to the observer that is characterized by some combination of apnea, color change, marked change in muscle tone, choking, or gagging. Recovery occurs only after stimulation or resuscitation.
- Most times the infant's exam and vital signs are normal upon EMS arrival.
- Occurs in infants under 1 year of age, but is most common in infants 10 - 12 weeks of age
### P5 ASTHMA

#### BLS
- Monitor pulse oximeter and heart rate
- Allow patient to assume position of comfort
- Maintain oxygen saturations >92%
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated

#### ALS
- **Albuterol** nebulized, repeat treatments continuously until respiratory distress resolves
- **Ipratropium** mixed with Albuterol nebulized every 30 minutes for 2 doses if respiratory distress does not resolve after 1st Albuterol neb (EMS or reliable neb before EMS arrival)
- Establish intravenous access in moderate to severe distress
- Consider use of capnography cannula
- Administer **Methylprednisolone Sodium Succinate** intravenously over several minutes for moderate to severe distress
- If patient is in severe distress or impending respiratory failure and is unresponsive to Albuterol (EMS or reliable neb before EMS arrival) administer **Epinephrine** 1:1000 intramuscularly in the mid anterolateral thigh.

#### OLMC
- Consideration of **Magnesium Sulfate** mixed in 100 mL bag D5W intravenously over 20 minutes
- Additional doses **Epinephrine** 1:1000 intramuscularly in the mid anterolateral thigh.

#### PEARLS
- A silent chest (lack of wheezes and normal air movement) is an ominous sign indicating that respiratory failure is imminent. Other signs/symptoms of impending respiratory failure include decreased level of consciousness and bradycardia
- A pediatric patient can tolerate an elevated high heart rate. Do not let a high heart rate deter you from giving Albuterol
- DO NOT attempt invasive airway procedures unless the patient is in respiratory arrest.
- Remember that our Albuterol is not magic. If the patient has reliably had one or more Albuterol treatments (including a properly administered MDI) at home, add adjunct therapies at EMS contact.
- Consider administration of aerosol solutions via direct instillation into the endotracheal tube. If intubated and in-line aerosol equipment is unavailable
BLS
- Supplemental Oxygen (O2), if indicated
- Assist ventilations with bag-valve-mask (BVM) device and appropriate airway adjunct, if indicated
- Begin cardiopulmonary resuscitation if heart rate is less than 60 under the age of one year with poor perfusion, despite adequate oxygenation and ventilation

ALS
- Electrocardiogram (ECG) rhythm assessment
- Establish intravenous or intraosseous access
- Perform 12 lead electrocardiogram, if it does not delay therapy
- Treat reversible causes
  - Epinephrine 1:10000 intravenously or intraosseously. Repeat every 3 -5 minutes as needed.
  - Atropine intravenously or intraosseously if primary AV block, increased vagal tone, or cholinergic drug toxicity (e.g. organophosphates)
- Pace patients with 3rd degree AV block

OLMC
- Consideration for the administration of Sodium Bicarbonate, Dopamine or Calcium Chloride to treat reversible causes.

PEARLS
- A pediatric patient is heart rate dependent for their cardiac output because they are unable to adjust their stroke volume like an adult patient
- Reversible causes of Bradycardia
  - Hypoxia
  - Hydrogen Ions (acidosis)
  - Hyperkalemia
  - Hypothermia
  - Hypokalemia
  - Hypoglycemia
  - Hypovolemia
  - Toxins/poisons/drugs
Consideration for the administration of Sodium Bicarbonate, Dopamine or Calcium Chloride to treat reversible causes.
- The Philips Infant Plus Multifunction Hands Free pads are for a patient less than 10 kg/22lb.
- The Philips Adult/Pediatric Multifunction Hands Free pads are for a patient greater than or equal to 10 kg/22lb.
- If there are signs of puberty refer to adult cardiac arrest protocol.
- Hand bore intraosseous (NO DRILL) on children less than 1 year of age.
- For refractory VF/VT, escalate energy settings to 10 J/Kg after first 3 shocks.
- Patients with renal disease/on dialysis should have hyperkalemia considered as a reversible cause.
If patient is known diabetic, conscious and able to protect their own airway and is age appropriate to follow simple directions, administer Oral Glucose or if available, a high sugar drink (i.e. non-diet soda, Gatorade, Powerade, juice).

- Assist ventilations with bag valve mask (BVM) device and appropriate airway adjunct, if indicated.

If patient suspected to be hypoglycemic and has an insulin pump, turn it off or disconnect.

Provide advanced airway management, if indicated.

Determine capillary blood glucose level:

- Hypoglycemia
  - Capillary blood glucose less than 45 mg/dL for a neonate or less than 60 mg/dL in a patient less than 12 years of age (Age greater than 12 years old, treat as an adult):
    1. Administer Oral Glucose by mouth if conscious, able to protect their own airway and is age appropriate to follow simple directions.
    3. Administer Glucagon intramuscularly if Oral Glucose administration is contraindicated or unable to obtain intravenous access.
    4. Repeat capillary blood glucose 5-10 minutes after treatment.
    5. May administer repeat dosing of Step #1 or #3, if symptoms are not resolved and the capillary blood glucose level remains less than 45 mg/dL for a neonate or less than 60 mg/dL in a child patient less than 12 years of age.

- Hyperglycemia
  - If blood glucose is greater than 300 mg/dL, administer 0.9 Sodium Chloride fluid bolus intravenously
  - Repeat capillary blood glucose 5-10 minutes after treatment.
  - Repeat 0.9% Sodium Chloride fluid bolus intravenously if patient continues to have signs and symptoms of poor perfusion.

Consult Online Medical Control Physician if needed.

A neonate born to a diabetic mother is at extremely high risk for hypoglycemia immediately after birth.
A pediatric patient in diabetic ketoacidosis is a neuro patient. He is at high risk for cerebral edema and herniation. DO NOT allow parents to administer insulin because a rapid drop in blood glucose can cause permanent brain damage or death.
P9 DROWNING / SUBMERSION

**BLS**
- Maintain cervical-spine if trauma suspected
- Supplemental Oxygen (O2), if indicated
- Have suction readily available
- Clear airway as needed
- Remove wet clothing and keep warm
- Assist ventilations with bag-valve-mask (BVM) device and appropriate adjunct, if indicated

**ALS**
- Apply monitor with EtCO2 & pulse oximetry
- Treat bronchospasms according to Pediatric Asthma Protocol
- Consider advanced airway only if unable to ventilate effectively with bag-valve-mask (BVM) device
- Place an orogastric tube in a patient who requires assisted ventilations

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARLS**
- Don't delay ventilation/oxygenation for attempts at suctioning foam, THE PATIENT REQUIRES OXYGEN
- The long spire board will float, but will not support a patient
- Be prepared to roll the patient due to the high incidence of vomiting
- Drowning alone doesn't meet trauma criteria
- If return of spontaneous circulation (ROSC) is achieved, transport to a pediatric specialty facility
**P10 HYPOTHERMIA**

**BLS**
- Remove wet clothing and keep the patient warm (cover head and body) with blankets
- Place hot packs (not directly against the skin) in the axillae and groin

**ALS**
- Determine capillary blood glucose level
- Electrocardiogram (ECG) rhythm assessment
- Establish intravenous access
- Continue warming
- DO NOT pronounce a hypothermic patient deceased. Always transport to the hospital.

**OLMC**
- Consult Online Medical Control Physician if needed.

**PEARLS**
- Hypothermia is an emergency resulting from exposure to cold temperatures. It most often occurs in association with submersions (even in Florida), but may be the result of prolonged exposure to a cold ambient environment.
- Neonates often cannot mount the immune response to be febrile when they have an infection. A low temperature can often be a sign of sepsis.
- Aggressive rewarming in the field can do more harm than good. Hypothermia can be protective of brain function and rapid rewarming can induce arrhythmias.
- Hypothermia can cause bradycardia by slowing the sinus node pacemaker or slowing the conduction through the AV node.
- Shivering can increase glucose consumption and lead to hypoglycemia.
If environmental related, move patient to an area away from the heat
Remove as much clothing as possible (while maintaining patient’s dignity)
May give cool non-caffeinated fluids by mouth if nausea or vomiting is not present and the patient is alert and oriented
Cover shivering patients with a light sheet
Supplemental Oxygen (O2), if indicated
Apply cold packs (not directly to skin) to axillae, back of neck, and groin for patients that are NOT shivering and feel hot to the touch. Remove if patient begins to shiver.
Refer to pediatric seizure protocol for seizure management

Cardiac monitor and pulse oximetry
Determine capillary blood glucose level and treat according to the pediatric diabetic emergency protocol
Establish intravenous access or intraosseous access (intraosseous ONLY if vital signs are unstable, medications or fluids need to administered, and intravenous is unable to be established) for patients with signs and symptoms of poor perfusion.
Administer 0.9% Sodium Chloride bolus intravenously or intraosseously with signs and symptoms of poor perfusion
Administer Ondansetron intravenously or by mouth for nausea and/or vomiting (greater than six months old)

Consult Online Medical Control Physician if needed.

Fever (temperature greater than 100.4 F or 38 C) is a sign of infection or inflammation rather than a problem itself. It is one way the body fights illness. Fever can make a child with a minor illness appear worse than they actually are and they will have marked improvement of symptoms once their temperature decreases.
Due to their immature immune system, neonates are often unable to isolate their infections and they quickly become systemic. Any neonate less than 30 days old with a fever should be transported.
- A pediatric patient can run high a fever (greater than 104 F or 40 C) in response to either a bacterial or viral infection. It can signify something as minor as a cold, or as serious as pneumonia, meningitis, or sepsis.

- A temperature less than 106 F, by itself has not been found to be harmful.

- An increased temperature causes an increased metabolic rate, causing an increased respiratory rate, increased heart rate, increased cardiac output, higher glucose and oxygen utilization. Hypoglycemia, hypoxia, or dehydration can be caused as a result.

- A patient with an increased core temperature may feel cool to the touch due to the vasoconstriction at the level of the skin. Assess skin temperature in the axillae, forehead, and back of the neck.

- Shivering is caused by muscle contractions and can further increase the patient’s temperature.
Assess if Resuscitation is Needed; Keep Warm; Position; Clear Airway; Stimulate

Administer Oxygen (O2), if indicated

Positive Pressure Ventilation

Endotracheal Intubation

Chest Compression

Drugs
Newborn Resuscitation

Term gestation? Breathing or crying? Good tone?
- Yes, stay with mother
- No
  - Warm, clear airway if necessary, dry, stimulate

30 sec

HR below 100, gasping, or apnea?
- Yes
  - PPV, SpO₂ monitoring
- No

60 sec

HR below 100?
- Yes
  - Take ventilation corrective steps
  - HR below 60?
    - Yes
      - Consider intubation
      - Chest compressions
      - Coordinate with PPV
      - HR below 60?
        - Yes
          - IV epinephrine
    - No
    - Take ventilation corrective steps Intubate if no chest rise!

- No
  - No
    - Labored breathing or persistent cyanosis?
      - Yes
        - Clear airway SpO₂ monitoring Consider CPAP
      - No
        - Postresuscitation care

Targeted Preductal SpO₂ After Birth
- 1 min 60%-65%
- 2 min 65%-70%
- 3 min 70%-75%
- 4 min 75%-80%
- 5 min 80%-85%
- 10 min 85%-95%

Take ventilation corrective steps
- Intubate if no chest rise!

Consider:
- Hypovolemia
- Pneumothorax

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- Consult Online Medical Control Physician if needed.

- Nearly 90% of babies are born vigorous with no complications
- It is EXTREMELY important to keep newborns warm!!! Make sure they are dry, keep them covered with dry blankets (not the ones used to dry them off) including their head. Put the heat on in the back of your ambulance regardless how hot you are, place baby skin to skin with mom before and after transport, not during transport. A well newborn that is cold will become sick and a sick newborn that is cold will become dead!
- Post resuscitation care:
  - Supplemental oxygen to reach target SPO2 readings, refer to SPO2 chart
  - Babies of diabetic mothers are at an increased risk for hypoglycemia. Determine capillary blood glucose level and treat according to the pediatric diabetic emergency protocol.
  - Continuously monitor heart rate and pulse oximetry
- Ventilation corrective steps, to be used when heart rate remains <100 bpm despite PPV. Do steps in order:
  - Mask adjustment
  - Reposition airway (ensure patient is in sniffing position with a roll under shoulders)
  - Suction mouth and nose
  - Open mouth
  - Pressure increase (squeeze bag SLIGHTLY harder)
  - Airway alternative (Intubation)
- Although an APGAR score is important for documentation, it does not have to be done in real time. You can calculate the score after the patient is stabilized
**P13 ACUTE PAIN MANAGEMENT**

| BLS | - Allow patient to assume a position of comfort if spinal motion restriction is NOT required  
|     | - Assess and document patient’s pain level using Wong-Baker Faces scale or numerical scale  
|     | - Immobilize any painful extremity to alleviate pain  
|     | - Apply ice packs (not directly on skin) to painful area  
|     | - Treat all underlying causes of pain if possible  
|     | - Supplemental Oxygen (O2), if indicated |

| ALS | - Place on cardiac monitor and pulse oximetry  
|     | - If patient is greater than or equal to one year old and has signs and/or symptoms of good perfusion and stable respiratory rate:  
|     |   - May administer Morphine OR Fentanyl for a pain level of 4 or greater  
|     |     - Morphine intravenously  
|     |     - Fentanyl SLOW intravenously over 1 - 2 minutes or intranasally split between two nares  
|     | - If respiratory depression occurs as a result of opioid administration, assist respirations with a bag-valve-mask (BVM) device and administer Naloxone intravenously, intraosseously, intramuscularly or intranasally  
|     | - If nausea and/or vomiting occurs as a result of opioid administration, administer Ondansetron intravenously or by mouth  
|     | - Reassess and document pain level and vital signs  
|     | - If after 5 minutes the patient’s pain level remains 4 or greater, without respiratory depression and the patient continues to have signs and/or symptoms of good perfusion, Morphine or Fentanyl may be repeated at the same dose as the initial dose. |

| OLMC | - Pain management for a patient less than one year old  
|      | - Additional pain medication |

| PE | - NEVER establish intraosseous access for the sole purpose of pain management  
|    | - Use caution when administering opioids to patients with:
- Altered mental status
- Head trauma

- Rapid infusion of Fentanyl can cause rigid chest syndrome where the muscles of the chest and abdomen become rigid. This does not allow the patient to breathe spontaneously or be ventilated with a bag-valve-mask (BVM) or endotracheal tube (ETT). It is reversed by administering Naloxone. It happens commonly in an infant patient, but can occur in patients of all ages.

- Non pharmacological methods of pain management can work well with a pediatric patient. Distraction works wonders: talk to them, provide something safe to play with like a syringe or stuffed animal, talk to them about their favorite toy or cartoon. Swaddling will usually work well for a very young patient.

- Children and infants that are non-verbal can also be experiencing pain. This is evident by restlessness, crying, tachypnea, tachycardia, back arching, and inconsolability.
BLS
- Continue ventilations with bag-valve-mask (BVM) device & 100% oxygen if respiration is not effective
- Administer Oxygen (O2) minimum 15L via non-rebreather mask if spontaneous respiration is effective
- Rapid transport to pediatric receiving facility

ALS
- Determine capillary blood glucose level and treat according to diabetic emergencies protocol
- Consider advanced airway if bag-valve-mask (BVM) ventilations are ineffective
- Monitor ETCO2
  - If signs of poor perfusion
    - Administer 0.9% Sodium Chloride bolus intravenously or intraosseously
    - May repeat once if perfusion does not improve
    - If poor perfusion persists, begin Dopamine intravenously
- Consider additional reversible causes and treat accordingly
- 12 Lead electrocardiogram

OLMC
- Consideration for the administration of Sodium Bicarbonate, Dopamine, or Calcium Chloride to treat reversible causes

PEARLS
- Treatable Causes
  - Hypovolemia
  - Hypoxia
  - Hydrogen Ions (acidosis)
  - Hypoglycemia
  - Hypo/hyperkalemia
  - Hypothermia
  - Tension Pneumothorax
  - Tamponade, cardiac
  - Toxins
# P15 SEIZURES

## BLS
- Protect patient from injury while actively seizing
- Supplemental Oxygen (O2), if indicated
- Have suction readily available
- Spinal Motion Restriction if indicated
- Assist ventilations with bag-valve-mask (BVM) device as needed and appropriate airway adjunct, if indicated
- If patient suspected to be hypoglycemic and has an insulin pump, turn it off or disconnect
- Assist with the administration of the patient's emergency seizure medication, if available (i.e. Diastat)
- Consider etiology of seizure

## ALS
- Initial pharmaceutical treatment:
  - Administer [Midazolam](https://www.nlm.nih.gov/medlineplus/druginfo/meds/a682272.html) intranasally (no more than 1 mL of medication per nare)
  - May repeat once with continued or repeat seizure activity
- Establish intravenous access
- Determine capillary blood glucose and treat according to the pediatric [diabetic emergencies](https://www.ncbi.nlm.nih.gov/pubmed/23111127) protocol
- Additional pharmaceutical treatment:
  - Administer [Diazepam](https://www.nlm.nih.gov/medlineplus/druginfo/meds/a680677.html) intravenously or rectally
    - May repeat twice with continued or repeat seizure activity
  - Administer [Midazolam](https://www.nlm.nih.gov/medlineplus/druginfo/meds/a682272.html) intravenously or intramuscularly
    - May repeat once with continued or repeat seizure activity
- Electrocardiogram and ETCO2 monitoring if medication is administered

## OLMC
- Administration of medication for an atypical seizure
- Pharmaceutical treatment above stated dosing in the Pinellas County EMS Handtevy Medication Guidebook

## PEARLS
- Intubating a seizing patient is extremely difficult and the complication rates are high
## P16 TACHYCARDIA

### BLS
- Assist ventilations with bag-valve-mask device as needed and appropriate airway adjunct, if indicated
- Maintain patient airway

### ALS
- Place on cardiac monitor
- Establish intravenous access
- Stable (narrow or wide rhythm)
  1. Administer **0.9% Sodium Chloride** bolus intravenously or intraosseously
  2. If HR ≥ 220 for infants or ≥ 180 for children
     a. Vagal Manueuvers
     b. **Adenosine** rapid intravenous push
     c. **Adenosine** rapid intravenous push
     d. **Amiodarone** intravenously over 20 minutes
- Unstable (narrow or wide rhythm)
  1. May sedate with **Diazepam** intravenously or rectally if patient condition permits
  2. Synchronized cardioversion. May repeat until cardioversion is successful and rhythm corrects.

### OLMC
- Consult Online Medical Control Physician if needed.

### PEARLS
- Unstable:
  - Poor systemic perfusion
  - Respiratory distress or respiratory failure
  - Acutely altered mental status
  - Hypotension
- Signs and symptoms of SVT
  - History of vague or nonspecific symptoms
  - P waves are absent or abnormal
  - Heart rate does not vary with activity or stimulation
- Vagal Maneuvers
  - Place a bag of ice over the upper half of the infant's face (without obstructing the airway)
If the child can follow commands have them attempt to blow the plunger of a syringe at you.
### BLS
- Maintain c-spine if mechanism of injuries indicates a potential head/neck injury; apply c-collar and spinal motion restriction prior to transport.
- If patient is in cardiac arrest, transport immediately to the closest facility.
- Rapid trauma survey, identify and control life threatening hemorrhage.
- Assess for trauma transport criteria; Declare Trauma Alert if indicated - Reference CT13.
- Perform detailed head to toe assessment (expose and recover to keep warm).
- Splint injuries appropriately.

### ALS
- If assisting respirations monitor ETCO2.
- Intubate only if unable to provide adequate ventilation/oxygenation with bag-valve-mask (BVM) device and airway adjuncts.
- Decompress tension pneumothorax if indicated.
- Establish intravenous/intraosseous access for altered mental status, signs of poor perfusion, need for intravenous/intraosseous medications.
- Administer 0.9% Sodium Chloride bolus intravenously/intraosseously for a patient with signs and symptoms of poor perfusion. May repeat once.
- Specific injuries may be treated as in Adult Protocols T3 - T10.

### OLMC
- Consult Online Medical Control Physician as needed.

### PEARLS
- All pediatric patients require a complete head to toe assessment as they are not reliable historians.
- Ensure that you keep the patient warm.
- Sager Splints will fit a patient 4 years old to adult. For patients younger than 4 years of age requiring traction, manual traction will need to be held.
- DO NOT administer pain medication to a patient with head injury, suspected head injury, poor perfusion or altered mental status.
- All patients with an altered mental status have a head injury until proven otherwise.
- Non-accidental trauma (child-abuse) should be suspected with all patients that have traumatic injuries that
do not match the story of the mechanism do not match the story of the mechanism of injury. Document all details including what the caregivers state happened in quotation and a complete physical exam including details of all bruises and marks. Every healthcare provider that suspects child abuse is required by law to file a report with the Florida Department of Children and Families Abuse Hotline at (1-800-962-2873).
### FOREIGN BODY AIRWAY OBSTRUCTION

#### BLS

- Supplemental Oxygen (O2), if indicated
- Have suction readily available
- Mild / partial obstruction
  - **DO NOT interfere.** Monitor the patient for signs of severe foreign body airway obstruction
  - Allow the patient to clear the airway by coughing
  - Reassure the patient and allow for position of comfort
- Severe obstruction
  - Conscious
    - Child - Perform abdominal thrusts until the object is expelled or becomes unresponsive
    - Infant - Deliver repeated cycles of 5 back blows (slaps) then 5 chest compressions until the object is expelled or becomes unresponsive
  - Unresponsive
    - Start cardiopulmonary resuscitation - after 30 chest compressions, open the airway. If a foreign body is visible, remove it.
    - **DO NOT perform blind finger sweeps**

#### ALS

- If BLS procedures are unsuccessful:
  - Perform direct laryngoscopy and attempt to remove the foreign body with Magill forceps
  - Perform endotracheal intubation for an obstruction suspected below the level of the cords
- If still unable to ventilate:
  - Attempt to push the obstruction with an endotracheal tube (balloon deflated).
  - Retract endotracheal tube to original position and attempt ventilation
- If prior interventions unsuccessful, perform **cricothyrotomy**

#### OLMC

- Consult Online Medical Control Physician if needed.
- Signs of foreign body airway obstruction include an acute onset of respiratory distress with coughing, gagging, stridor or wheezing
- Sudden onset of respiratory distress in the absence of fever or other respiratory symptoms suggests foreign body airway obstruction rather than an infectious cause of respiratory distress, such as croup.
- A severe obstruction develops when a cough becomes silent, respiratory effort increases and is accompanied by stridor or unresponsiveness
- **DO NOT delay transport for multiple intubation attempts**
  - Transport to the closest hospital is mandatory for an uncontrolled airway
**Background:** Because of the uncontrolled environments encountered in prehospital care and the fact that all of our airways are "Crash Airways" every attempt at prehospital airway management should be considered a "Difficult Airway". Success in management is predicated on an algorithmic approach focused on preparedness and thinking several steps ahead. The 6 steps below outline this approach and are followed by the specifics of the individual procedures.

Prehospital adult airway management will be approached in the following stepwise fashion always being prepared to rapidly move to the next step if unsuccessful:

I. All patients requiring ventilatory assistance will be managed with bag-valve-mask (BVM) until choice of advanced airway device is made and preparations from placement are completed.

II. Patients in cardiac arrest or in whom endotracheal intubation is anticipated to be especially difficult will have the King Airway device employed primarily.

III. Other patients may receive a maximum of 2 total attempts at endotracheal intubation, with facilitation medication if indicated.

IV. If either device is unsuccessful, the alternate may be attempted.

V. If both devices are unsuccessful, bag-valve-mask (BVM) ventilations should be employed as a temporizing measure until arrival at hospital.

VI. If endotracheal intubation, King Airway placement, and bag-valve-mask (BVM) ventilations are all successful, emergency cricothyroidotomy will be performed as a last resort.

**Individual Procedures:**

1. **Bag Valve Mask Ventilation**

   **Indications:**
   Respiratory insufficiency / failure / arrest. Preoxygenation prior to advanced airway placement attempt.

   **Contraindications:**
   None

   **Cautions:**
   Effective seal may be difficult in patients with abnormal facial shaped, bears, lack of teeth, and facial trauma.

   **Procedures:**
   a. Assemble equipment per manufacturer’s directions and connect to oxygen source if available.

   b. Attach ETCO2 between mask and bag.
c. Place OPA/NPA if patient able to tolerate and not contraindicated (NPA in head / facial trauma).

d. Utilizing 2 person technique whenever possible, ventilate at baseline rate of 12-16 breaths per minute. Adjust ventilation rate to achieve adequate Oxygen (O2) saturation and ETCO2 35 - 45 mmHG.

**Complications:**

Inability to maintain adequate seal. Inappropriate hyperventilation. Hypotension and / or pneumothorax resulting from positive pressure ventilation.

### 2. King Airway Placement

**Indications:**

Respiratory insufficiency / failure / arrest

**Contraindications:**

Known esophageal disease (varices), Caustic substance ingestion, Height < 4 feet.

**Cautions:**

May be difficult or ineffective in patients with significant head / neck face structural abnormalities or trauma causing instability of the face or oropharynx.

**Procedure:**

a. Choose appropriate size device, assemble equipment per manufacturer’s directions, test balloon, and lubricate.

b. Grasp jaw and tongue and lift anteriorly.

c. Place device from corner of mouth with device rotated 45 - 90 degrees laterally.

d. Insert device and advance along posterior tongue while rotating back to midline until hubisatlip / gum-line.

e. Inflate cuff to seal with up to 60 mL air using syringe.

f. Attach ETCO2 between tube and bag
g. Begin ventilations while gently retracting tube until it seats and ventilations are easy. If air leak may instill up to 20 mL more of air into balloon.

h. Secure tube with tape.

i. Ventilate at baseline rate of 12 - 16 breaths per minute. Adjust ventilation rate to achieve adequate
Oxygen (O2) saturation and ETCO2 35 - 45 mmHG.

Complications:

Failure to insert device to appropriate depth prior to inflating balloon may cause it to not seat properly. In a very small percentage of patients, the device may inadvertently enter the trachea instead of the esophagus and will be ineffective. Multiple placement attempts, too forceful manipulation, or over-inflation of the balloon may cause trauma to the oropharynx, esophagus, or trachea. Hypotension and/or pneumothorax with positive pressure ventilation.

3. Endotracheal Tube Placement

Indications:

Respiratory insufficiency / failure / arrest

Contraindications:

None

Cautions:

May be difficult in patients with trauma / bleeding / secretions to the airway. Anticipate particular difficulty with edentulous patients, those with limited mobility of neck or jaw, beards, excess soft tissue of the face and neck.

Procedure:

a. Preoxygenate patient

b. Assemble all needed equipment within reach of operator (laryngoscope, appropriately sized tube, lubrication, syringe, suction, Bag, OPA / NPA, Bougie, Suction, ETCO2) and test balloon.

c. Perform direct laryngoscopy and pass ET tube so cuff is just distal to the vocal cords. Max 15 seconds per attempt and 2 attempts TOTAL.

d. Inflate balloon and assess for bilateral breath sounds, quiet epigastrum, and confirm placement with ETCO2 waveform.

e. If suspected mainstem intubation (diminished sounds unilaterally), retract 1 - 2 cm and reassess.

f. Secure tube with commercial tube holder.

g. Ventilate at baseline rate of 12 - 16 breaths per minute. Adjust ventilation rate to achieve adequate O2 saturation and ETCO2 35 - 45 mmHG.

Complications:
Inability to place tube, esophageal placement, mainstem placement, unrecognized displacement. Hypotension and/or pneumothorax with positive pressure ventilation.

4. **Facilitated Intubation**

**Indications:**

Respiratory insufficiency / failure / arrest requiring airway management in patients with retained consciousness, gag-reflex, or jaw clenching.

**Contraindications:**

Allergic or adverse reaction history to any of the medications.

**Cautions:**

Extreme caution should be exercised prior to attempting facilitated intubation to avoid administering in patients in whom airway management is anticipated to be particularly difficult.

**Procedure:**

a. Ensure adequate intravenous access

b. Pre-oxygenate

c. Administer Fentanyl: 2 mcg / kg intravenous over 30 secs

d. Administer Etomidate: 0.3 mg / kg intravenous over 20 secs

e. Perform endotracheal intubation as above.

f. Following successful intubation administer Diazepam: 2.5 – 5mg intravenous q5 - 10 minutes as needed for ongoing sedation.

g. OLMC consult is mandatory for all failed intubation attempts utilizing facilitation medications.

**Complications:**

Adverse reactions to medication, ineffectiveness of medication, sedation with failure to secure airway.
1. **Epinephrine Auto-Injectors (Epi-Pen, Epi-Pen Jr, etc)**

   **Indications:**
   
   Anaphylaxis, Anaphylactic Shock, Life Threatening Bronchospasm
   
   **Contraindications:**
   
   None
   
   **Cautions:**
   
   Caution in patients suspected of coronary disease as may precipitate ACS. Avoid accidental self administration.
   
   **Procedure:**
   
   a. Expose skin and cleanse if possible
   b. Grasp age appropriate autoinjector without covering end with fingers and remove safety cap
   c. Press tip firmly against patient’s outer thigh until device fires, hold on skin 10 seconds after firing to ensure full delivery of medication.
   
   **Complications:**
   
   Bleeding, Infection, adverse medication reaction.

2. **Nerve Agent Antidotes (Atropine, Pralidoxime, and Diazepam autoinjectors)**

   **Mark I Kit**
   
   - Contents
     - Atropine 2 mg
     - Pralidoxime Chloride (2-PAM or Protopam) 600 mg
   
   - Procedure
     1. Remove Mark I Kit from the protective pouch.
     2. With the non-dominant hand, hold the unit by the plastic clip so that the larger one is on top and both are positioned at eye level.
3. Remove the AtroPen from slot number one (1) of the plastic clip
   - The yellow safety cap will remain in the clip and the AtroPen will now be armed.
     - **DO NOT** hold unit by the green tip the needle injects from green tip.

4. With the other hand, check the injection site for buttons or objects in pockets which may interfere with the injections.

5. Grasp the unit and position the green tip of the AtroPen on victim’s outer thigh or buttocks.

6. Push firmly until the auto-injector fires.

7. Hold the injector firmly in place for at least 10 seconds.

8. Remove the Pralidoxime Chloride Pen from slot number two (2) of the plastic clip
   - The grey safety cap will remain in the clip and the Pen will now be armed
     - **DO NOT** hold the unit by the black tip – the needle injects from the black tip.

9. Grasp the unit and position the black tip of the Pen on victim’s alternate outer thigh or buttocks.

10. Push firmly until the auto-injector fires.

11. Hold the injector firmly in place for at least 10 seconds.

12. Repeat Steps #1 - #12 depending on the severity of the exposure.

   - **Notes:**
     - Auto-injector needle is 8/10 inch long
     - Injector needle can go through clothing
     - Injector needle may not penetrate bunker gear
     - Give injections into a large muscle mass area such as the outer thigh or buttocks

**DuoDote**

   - **Contents**
     - Atropine 2.1 mg and Pralidoxime Chloride (2-PAM or Protopam) 600 mg in two separate internal chambers. When activated, the DuoDote administers both drugs in a single autoinjector.
Procedure

1. Remove the DuoDote from the plastic pouch.
2. Place the DuoDote in your dominant hand. Firmly grasp the center of the DuoDote with the green tip pointing down. Do Not touch the green tip.
3. With your other hand, pull off the gray safety release. The DuoDote is now ready to be administered.
4. Make sure pockets at the injection site are empty.
5. Firmly push the green tip straight down against the outer thigh. Continue to firmly push until you feel the auto-injector trigger.
6. Hold the DuoDote in place for at least 10 seconds.
7. Remove the auto-injector from the thigh and look at the green tip. If the needle is visible, the drug has been administered.
8. Repeat Steps # 1 - #7 depending on the severity of the exposure.

Notes:

- Auto-injector needle is 8/10 inch long
- Injector needle can go through clothing
- Injector needle may not penetrate bunker gear
- Give injections into a large muscle mass area such as the outer thigh or buttocks

Complications:

Bleeding, Infection, adverse medication reaction.
**Indications:**

1. Continuous waveform capnography use is mandatory in:
   a. Advanced airway placement (endotracheal tube or King)
      ○ Continuous waveform capnography is the only acceptable method of confirmation for endotracheal tube placement.
   b. Altered mental status
   c. Sedating medications administration

2. Continuous waveform capnography is highly recommended in:
   a. BVM ventilations
   b. Multiple doses of opiate analgesics
   c. Patient experiencing respiratory distress (i.e. Asthma, COPD, etc.)

**Contraindications:**

None

**Cautions:**

There is a moisture sensitive filter in the sensor tubing that is designed to occlude the tubing to prevent secretions from entering pump in monitor module. Sensor may need to be periodically changed due to occlusion even in the absence of copious secretions.

**Procedure:**

a. Attach age appropriate sensor in between advanced airway device (endotracheal tube or King) and BVM or ventilator circuit and connect to monitor.

b. If no advanced airway, may use age appropriate external sensor (nasal cannula type).

c. Continuously monitor capnometry (number) and capnography (waveform).

**Complications:**

None

**Note:** Failure to continuously monitor and appropriately interpret data may result in misplacement or unrecognized displacement of advanced airways and respiratory compromise in patients receiving sedating medications and is grounds for immediate clinical suspension.
**Indications:**
Non-traumatic, adult cardiac arrest

**Contraindications:**
Functioning LVAD in place

**Cautions:**
Requires adequate room to work around patient.

**Procedure:**

a. To ensure best possible resuscitation, follow the choreography of the Compression Performance Resuscitation (see figure).

b. Use the Phillips MRX with Q-CPR whenever possible (See PIT CREW MODEL)

**Complications:**
Skin tear from Q-CPR feedback device.

**Notes:**
- Team approach to minimize interruption of compressions resulting in at least a <10 sec break during every cycle. <5 sec is optimal.
- If personnel are in need of rotation out of a position, and appropriate personnel are on scene, it may be done as long there is no interruption in Cardiopulmonary Resuscitation.
- Any additional personnel may be added into available positions as the situation dictates as long as it does not interfere with the "triangle" positions that have the greatest impact on patient outcome.
- ROSC" is intended to represent a brief (approximately >30 seconds) restoration of spontaneous circulation that provides evidence of more than an occasional gasp, occasional fleeting palpable pulse, or arterial waveform.
Position 1 – Compress/Defib
EMT or Paramedic
- Starts 100 compressions
- Alternates chest compressions, uninterrupted, with opposite side:
  Verbally announcing count so all rescuers are prepared for switch.
- During ventilations, turn on ECG to therapy mode and apply pads and
  QCPR (if Phillips monitor) or AED if BLS.
- Delivers shock if indicated after the first 200 compressions (2 min) and
  continues to analyze after each CPR cycle (<10 sec interruption).

Position 2 – Airway/Ventilation
Paramedic
- Opens/Cears Airway. During compressions, ready QCPR, therapy
  pads, and insertion of King Airway
- Applies ETCO2

Position 3 – Compress/Defib
EMT or Paramedic
- Turn on ECG to therapy mode and apply pads and QCPR (if Phillips
  monitor) or AED if BLS.
- Alternates chest compressions, uninterrupted, with opposite side:
  Verbally announcing count so all rescuers are prepared for switch.
- Delivers shock if indicated after the first 200 compressions (2 min)
  and continues to analyze after each CPR cycle (<10 sec interruption).

Position 4 – Vascular Access/Meds
Paramedic
- Initiates circulatory access with EZIO - preference of
  humeral head insertion. If IO access not available, move to IV.
- Administer Medications
- ALS Procedures

Position 5 – Document
EMT or Paramedic
- Specifically applicable for supervision/Lieutenant
- Gathers PT information
- Treatment Documentation
- Updates Family
- Prepares for transport
- Fills in where needed

Drugbox

ePCR
Indications:
- Congestive heart failure (CHF)/Acute pulmonary edema
- Reactive airways disease (Asthma / COPD)
- Drowning / near drowning
- Selected toxic inhalations

Contraindications:
- Respiratory arrest/RR<8
- Suspected or known pneumothorax
- Tracheostomy/Cricothyrotomy
- Vomiting
- Hypotension (systolic blood pressure (SBP)<90)
- Altered mental status

Procedure:

a. Assemble device according to manufacturer’s instructions and connect to oxygen source.
b. Explain procedure to patient and encourage them to work with the mask.
c. Place the delivery device over the mouth and nose and secure the mask with provided straps and ensure no air leaks.
d. Begin at 5 cm of H2O pressure and titrate by 2.5 cm of H2O pressure every 3-5 minutes to max 10 cm of H2O pressure as patient tolerates and symptoms require.
e. Monitor for worsening respiratory and decreasing mental status continuously and document vital signs at least every five minutes.

Complications:
Pneumothorax, hypotension, apnea, inability to tolerate.

Notes:
CPAP therapy needs to be continuous and shouldn’t be removed unless the patient can’t tolerate the mask or experiences continued or worsening respiratory failure or other complication.
Indications:
Respiratory insufficiency/failure/arrest with inability to adequately provide oxygenation or ventilation by bag-valve-mask (BVM), endotracheal tube, or Extraglottic airway device.

Contraindications:
Age < 10, inability to find landmarks

Cautions:
Anticipate difficulty with excess soft tissue, previous scarring to neck

Procedure:

a. Prep area with alcohol preps and chlorprep or betadine, if available.
b. Grasp larynx with thumb and middle finger to stabilize the thyroid cartilage and locate laryngeal prominence (point of the Adam’s apple). Slide finger downward to locate the cricothyroid membrane.
c. Make 3cm vertical midline incision overlying the cricothyroid membrane.
d. Locate the cricothyroid membrane with index finger and make transverse incision through the cricothyroid membrane the width of the cricothyroid space.
e. Insert a curved or straight Kelly clamp through the incised membrane and remove scalpel.
f. Dilate the space using the curved or straight Kelly clamp and insert 6.0 mm endotracheal tube directed inferiorly through the incision until just past the balloon and inflate cuff.
g. Manually stabilize tube and begin ventilations at baseline rate of 12-16 breaths per minute. Adjust ventilation rate to achieve adequate Oxygen (O2) saturation and ETCO2 35-45 mmHG.
h. May secure tube using tape, but manual stabilization should be maintained until transfer of care at the receiving facility.

Complications:
Inability to find landmarks, bleeding, paratracheal tracking of ET tube, subcutaneous emphysema.
RATIONALE: An orogastric tube (OGT) should be used in conjunction with endotracheal intubation and the King Airway. Additionally, an OGT may be placed during bag-valve-mask ventilations in the pediatric patient. An OGT is used to remove air that accumulates in the stomach during cardiopulmonary resuscitation. Placing an OGT helps prevent vomiting by removing stomach contents and preventing distention of the stomach caused by excessive air. This helps reduce the risk of aspiration.

Indications:

- Gastric decompression and emptying in pediatric and adult patients receiving assisted ventilation.

Contraindications:

- Awake patients or patients with gag reflex
- Caustic ingestions
- History of esophageal strictures, varices and/or other esophageal disease
- Adult patients without advanced airway in place

Procedure:

- NASAL GASTRIC TUBE INSERTION IS NOT PERMITTED.
- Choose appropriate size:
  - 6fr – Infants/Pediatrics 3 kg to 15 kg
  - 12fr – Pediatrics 16 kg to 25 kg
  - 18fr – greater than 25 kg
- Measure the tube from the corner of the mouth to the earlobe and then to the point midway between the patient’s navel and tip of the sternum.
- For the KING LTS-D’s gastric access lumen, lubricate the gastric tube prior to inserting into gastric access lumen.
- For an endotracheal tube, lubricate the gastric tube prior to inserting and slowly advance the tube into the oropharynx next to the endotracheal tube until the appropriate depth is obtained.
- For the non-intubated PEDIATRIC patient, an OPA should be in place. Measure and insert the OGT as previously described. Secure to side of mouth with tape.
- If there is resistance, rotate and retract the tube slightly and try again. Keep insertion time to no greater than 10 seconds.
- Keeping the patient’s head and neck in a neutral position will also facilitate passage to the OGT.
- Once inserted, draw 5-20 mL of air (dependent on patient size) into a 60 cc syringe with catheter tip and quickly inject the bolus of air into the stomach while auscultating with a stethoscope. If the tube is in the stomach, a gurgling sound should be audible. If the tube is in the esophagus or trachea, the air sounds will be absent or muffled.
- Once placement is confirmed, attach orogastric tube to suction tubing. Place to low, non-continuous suction to facilitate evacuation of stomach contents. Discontinue suction when there is no further return of stomach contents.
- Secure the OGT to the endotracheal tube/King Airway with tape.
CP8 SPINAL MOTION RESTRICTION (SMR)

Indications:
Minimization of movement during extrication and transport of patients with known or suspected instability of the spinal cord.

Contraindications:
Inability to perform without causing further injury to patient (e.g. unsafe environment requiring rapid extrication)

Cautions:
SMR is not a benign procedure and may cause significant discomfort and potentially physiologic compromise. It should be applied only when necessary.

Procedure:


b. If patient meets criteria, apply SMR using appropriately sized standard cervical collar, cervical immobilization device, and backboard.
   ○ If patient factors (age, habitus, size, mental status/combative ness) prohibit the above standard equipment, utilize alternative means to achieve immobilization to the greatest extent possible (i.e. vacuum splint, padding, manual stabilization, etc.)

c. Document rationale and methods used for any deviation from standard method of SMR.

d. Consult OLMC if unsure if patient requires SMR or how to apply an alternative method.

Complications:
Increased pain, pressure ulcers, respiratory compromise.

Notes: While the paradigm for SMR indication is changing, we must await further data before rushing into a practice change. It is important to apply SMR in a selective and rational way for now. Recognize that the SMR worksheet cannot be utilized on pediatric or geriatric populations. Remember that in geriatric patients seemingly minor mechanisms (e.g. slumping forward from a wheelchair) routinely can cause spinal fractures due to osteoporosis.
# Spinal Motion Restriction (SMR) Worksheet

Isolated penetrating trauma patients **WITHOUT** signs of spinal cord injury do NOT require SMR, regardless of age.

<table>
<thead>
<tr>
<th>ANY marked YES = SMR INDICATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
</tr>
<tr>
<td>Patient &lt; 12 yrs or &gt; 65 yrs of age</td>
</tr>
<tr>
<td>GCS &lt; 15 at time of decision</td>
</tr>
<tr>
<td>Unreliable patient</td>
</tr>
<tr>
<td>(Suspected drug or EtOH impairment; language barrier; excited, agitated or uncooperative; distracted or obviously in denial)</td>
</tr>
<tr>
<td>Distracting injury or other severe symptoms present</td>
</tr>
<tr>
<td>(Head injury, extremity fractures/dislocations, amputations, burns, non-trauma related chest pain, dyspnea, etc.)</td>
</tr>
<tr>
<td>Altered motor or sensory exam or complaint of altered sensation</td>
</tr>
<tr>
<td>(C/o numbness/tingling or altered sensation, abnormal grip and/or foot push/pull, abnormal sensation to touch on extremities or trunk)</td>
</tr>
<tr>
<td>C/o of new neck or back pain related to traumatic incident</td>
</tr>
<tr>
<td>Tenderness anywhere on palpation of neck AND back</td>
</tr>
</tbody>
</table>

All No | Any Yes |

NO SMR | SMR
CP9 INTRAOSSEOUS ACCESS

Indications:

- Primary vascular access in cardiac arrest patients.
- Inability to obtain peripheral intravenous access in other category RED patients (Adult and Pediatric) requiring urgent intravenous access.

Contraindications:

- Fracture, cellulitis or other overlying infection.
- Inability to palpate landmarks.

Cautions:

Anticipate difficulty with excess soft tissue.

Procedure:

a. Determine landmarks for approved sites (tibial plateau, humeral head, and distal tibia just proximal to medial malleolus) according to manufacturer provided diagrams and choose appropriate needle size.
b. Prep area well with alcohol preps and chloprep or betadine if available
c. Insert needle using EZ-IO (device according to manufacturer’s directions. [www.vidacare.com])
d. Confirm placement with aspiration of bone marrow, flush, and secure with commercial device.
e. Infuse fluids and medications as needed.
f. In conscious patients, may administer 2% Lidocaine (Adults 30 mg, Pediatrics 0.5 mg) via slow intraosseous push to control infusion related pain.
g. Write time of placement and operator name on provided band and affix to limb where intraosseous placed.

Complications:

Improper placement may cause injury to the bone, bleeding, extravasation of fluids and medications, necrosis, and loss of limb.
CP10 NEEDLE THORACOSTOMY

Indications:
- Suspected pneumothorax with severe respiratory distress, hypotension, or cardiovascular collapse.
- Traumatic cardiac arrest with chest or abdominal injury.

Contraindications:
Simple pneumothorax.

Caution:
None

Procedure:
- a. Expose entire chest and identify landmarks
- b. Prep skin with alcohol, chlorprep, or betadine if available.
- c. Insert 10-gauge, 3.25 inch decompression needle into one of the following:
  - 2nd intercostal space, mid-clavicular
  OR
  - 5th intercostal space, mid-axillary
- d. Remove needle leaving angiocath in place.
- e. Notify receiving facility of needle thoracostomy
- f. Reassess patient and interventions frequently, at least every 5 minutes

Complications:
- Inability to find landmarks, bleeding, failure to penetrate the pleural cavity, clogging of angiocath by blood or soft tissue, subcutaneous emphysema.
**Indications:**
Hard restraints are appropriate for patients that are violent and pose a threat to responders or themselves when verbal de-escalation is ineffective and chemical sedation is not feasible.

**Contraindications:**
None

**Cautions:**
Physical restraints are potentially dangerous and should be used only when other methods (verbal de-escalation, chemical sedation) are not effective or feasible.

**Procedure:**

a. Verbal de-escalation should be attempted prior to moving to chemical/physical restraints.

b. Choose the appropriate level of physical restraint.
   - Soft restraints are appropriate for non-violent patients who require restraint from interfering with therapy (i.e. pulling lines, tubes etc.).
   - Hard restraints are appropriate for patients who pose a danger to themselves or responders.

c. Obtain law enforcement assistance for physical restraint, whenever possible.

d. Apply restraints following the manufacturer's instructions.

e. Position patient in the supine position. PATIENTS MAY NOT BE PLACED IN PRONE POSITION!

f. A patient may be placed on backboard, stretcher or pediatric spinal motion restriction device to facilitate transfer.

   **Strap Placement**

   - **Stretcher straps**
     - Chest strap under the arms high on chest
     - Leg strap immediately above the knees
   - **Backboard (when utilized) straps**
     - Chest straps across the chest (in the form of an “X”)
     - Abdominal strap on the hips (not abdomen) (in the form of an “X”)
     - Leg strap immediately above the knees
- **Secure hands/feet**
  - Dominate hand (if known) tied to stretcher above head (same side)
  - Non-dominant hand tied down to their side to the stretcher (same side)
  - Secure ankles individually to each side of the stretcher (right ankle to the right side of the stretcher and left ankle to the left side of the stretcher).

  g. If the patient is spitting, a surgical mask or N-95 mask may be used to block excretions. If the patient receives any chemical sedation, a non-rebreather mask at 10-15 LPM should be utilized.

  h. Monitor the airway to prevent aspiration. Have suction readily available and be prepared to roll!

  i. Assess distal neurovascular function and document minimum of every 5 minutes

**Complications:**

- Physical injury to patient or provider.
- Failure to recognize deteriorating respiratory, neurologic, and cardiovascular status.
- Extremity injury

**Notes:**

- Keep the exit between yourself and the patient, so that you may safely and quickly exit if needed.
- Never attempt to subdue a violent or combative patient alone.
- Call for law enforcement for violent and severely combative patients.
- Any patient restrained by law enforcement in a prone position shall immediately be placed in a supine position upon EMS access to patient. Monitor the patient for signs and symptoms of positional asphyxia.

  - **Law enforcement restraints:**
    - If Law Enforcement places a patient in custody and/or handcuffs (metal or plastic) a patient to the stretcher for transport, an officer MUST ride in with the transport unit. It is for the crew and patient’s safety.
    - If the officer does not want to ride in an OLMC contact should be made.
Indication:
All patients being transported shall be secured utilizing an appropriate restraining device.

Contraindication:
None

Cautions:
It is imperative that patients are restrained with approved devices applied according to manufacturer recommendations. Be mindful that access to a patient’s airway should never be compromised by the restraint. At no time should an infant or child be transported in the lap of a parent or guardian.

Procedure:
- For children weighing less than 10 pounds, the “Infant/Child Safety Seat” should be utilized secured to the stretcher.
- For children weighing 10 to 40 pounds, the Pedi-Mate should be utilized secured to the stretcher.
- A Pediatric Immobilization Device should be used for all pediatric trauma patients.
- Patients weighing greater than 40 pounds should be secured to the main stretcher utilizing provided straps.
- Adult trauma patients will be placed in an Immobilization Device as per CP8 (CP8 SPINAL MOTION RESTRICTION) and secured to the stretcher or benchseat.

Complications:
Caution when securing patients that proper positioning and alignment is maintained to promote good circulation and decrease injury.

NOTES:
For the interfacility transport of infants less than 28 days of age and/or weighing 5 kg or less, CCT should be utilized for neonatal care and transport with an Isolette or other specialized device.
Indications:

- Displacement, fracture, or bleeding from catheter
- Inability to obtain peripheral intravenous access in category RED patients who require immediate access for administration of medications and/or fluids.

Contraindications:

Medication ports may not be accessed.

Cautions:

There are several types of indwelling catheters that may be encountered. Clinicians may not access a particular catheter unless they are confident on the type and function of each of the ports.

Procedure:

a. Troubleshooting

1. If catheter is completely out or there is bleeding from the site, apply direct pressure to the site
2. If catheter is partially out, secure in place and cover with sterile dressing.
3. Assess for S/S of embolus, thrombus or internal bleeding (Chest pain, cyanosis, dyspnea, shock)
4. If the catheter is broken in half, with or without bleeding, clamp end of remaining tube with hemostat (Kelly forceps).
5. If suspected embolus, thrombus, internal bleeding, or air embolus: clamp the line and position patient on left side.

b. Emergency Access (Paramedic and RN Only) (See CT8 INDWELLING CATHETER)

1. Make sure clamp is closed, remove end cap and replace with the extension and cap from the intravenous Start Kit
2. Identify hub to be accessed.
3. Cleanse port hub with alcohol swipe x 2 and Chlorprep if available.
4. Connect syringe and draw back 10 cc of blood and waste.
5. Flush with saline to ensure patent line.
6. If unable to draw back and flush, do not use line.
7. Attach intravenous fluids making sure the line is primed well.
8. Instill medications and fluids as needed.

Complications:

Infection, bleeding, embolization of catheter fragments or blood clots, air embolism.
**CP14 TROUBLESHOOTING IMPLANTED MEDICAL DEVICES**

**Indications:**

Acute harm being caused by an implanted medical device due to malfunction or change in patient’s condition.

**Contraindications:**

Unknown type of device

**Cautions:**

Clinicians should not attempt any manipulation or intervention to any device that they have not positively identified and determining to be causing acute harm to the patient.

**Procedure:**

1. Identify Device.
   
a. **AICD** (Automatic Implanted Cardiac Defibrillator): If in consultation with OLMC, you have identified that the patient’s AICD is misfiring or causing a dysrhythmia and you have access to the patient’s magnet, deactivate the ICD by locating the pulse generator (the large box like structure of the ICD) and place the donut magnet over the generator. You may or may not hear a high-pitched tone from the generator, depending on the brand of the ICD. Secure the magnet in place with adhesive tape. The magnet will inhibit further arrhythmia detection and treatment by the ICD.
   
b. **LVAD** (Left Ventricular Assist Device):
      
      i. Gather information—Is patient’s complaint related to the device? What type (color coded tag on control unit on belt) of device it is. Are there any experts on scene? What is the battery status? Is there a hand pump? What hospital do they go to?
      
      ii. Contact OLMC, they have a comprehensive, brand specific troubleshooting guide that will assist you in your care.

      iii. Bring all of the patient’s equipment to the transport unit.

      iv. Remember you may not have a palpable pulse but should hear a whirring sound.

      v. Standard diagnostic measurements will be unreliable (BP, SaO2, HR, etc).

      vi. **NEVER** remove both batteries at the same time!

      vii. **Do not perform cardiopulmonary resuscitation (CPR)** on unresponsive and pulseless LVAD patients unless you are unable to hear the whirring sound on auscultation of the chest as CPR may cause dislodgement of the device and immediate death.

   c. **VNS** (Vagus Nerve Stimulator):
      
      i. Clinicians caring for patients in status epilepticus who have a VNS and are not responding to standard medications may assist the family or caretaker to activate/increase the settings of the VNS by passing the patient’s
control magnet closely over the chest area where the VNS device is implanted every 3 minutes to a maximum of 3 times.

ii. Remember that VNS stimulators may cause abnormalities on electrocardiogram (ECG) monitoring and 12 Leads.

d. Insulin Pump:

i. Clinicians caring for patients who are profoundly hypoglycemic may temporarily pause or disable the pump until the patient has been treated as per protocol

e. Patient-Controlled Analgesia Pump (PCA):

i. PCA pumps encountered in the outpatient setting are most often locked. Troubleshooting will likely be limited to the IV access site.

Complications:
Interfering with implanted medical devices is inherently dangerous and should only be attempted if the device is clearly causing acute harm. OLMC consultation should be sought in nearly all cases.
**Indications:**
Unstable tachydysrhythmias

**Contraindications:**
Hazardous environments

**Cautions:**
Failure to SYNC may result in “Q on T syndrome” and induce asystole

**Procedure:**

a. For unit using the Phillips MRx

1. With the Therapy Knob in the Monitor position, press the Sync button located beside the Therapy Knob, a Sync message appears in the upperright corner of Wave Sector 1.

2. Confirm that the Sync marker appears with each R-wave.

3. Turn the Therapy Knob to the desired energy level setting.

4. Press the Charge button on the HeartStart MRx, wait until the charge has reached the energy level selected, and you hear a continuous charge done tone. To disarm the defibrillator, press [Disarm]. If desired, you may increase or decrease the selected energy level after pressing the Charge button by moving the Therapy Knob to the desired setting. The defibrillator charges to the modified energy level automatically. Wait until the current charge reaches the selected energy level before proceeding.

5. Make sure no one is touching the patient or anything connected to the patient. Call out clearly and loudly, “Stay Clear!”. Check again to be sure.

6. Press and hold the Shock button on the HeartStart MRx. The shock will be delivered when the next R-wave is detected.

**NOTE** - It is important to continue to hold the Shock button until the shock is delivered. The defibrillator shocks with the next detected R-wave.

b. For units using the Life Pak 12

1. Press ON.

2. Select Lead II or lead with greatest QRS complex amplitude (positive or negative).
Note: To monitor the electrocardiogram (ECG) through therapy electrodes, place the electrodes in anterior-lateral position and select PADDLES lead.

3. Press SYNC. Confirm the SYNC LED blinks with each detected QRS complex.

Note: Press SYNC again to deactivate sync mode.

4. Observe the ECG rhythm. Confirm that a triangle sense marker appears near the middle of each QRS complex. If the sense markers do not appear or are displayed in the wrong locations (for example, on the T-wave), adjust ECG SIZE or select another lead. (It is normal for the sense marker location to vary slightly on each QRS complex.)

5. Prepare the patient’s skin for therapy electrode application.

6. Connect the therapy electrodes to the therapy cable and confirm cable connection to the device.

7. Apply therapy electrodes to the patient in the anterior-lateral position.

8. Press ENERGY SELECT

9. Press CHARGE.

10. Make certain all personnel, including operator, stand clear of the patient, bed, and any equipment connected to the patient.


12. Press and hold SHOCK button(s) until discharge occurs with next detected QRS complex. Release SHOCK buttons. If discharge buttons are not pressed within 60 seconds, the stored energy is internally removed.

Note: If you change the energy selection after charging has started, the energy is removed internally. Press CHARGE to restart charging.

13. Observe patient and ECG rhythm. Repeat procedure from Step 4, if necessary.

Complications:

Pain, Burns, Arrythmias.
# CP16 CAT Tourniquet

## Indications
- Control of life threatening external hemorrhage when standard methods such as direct pressure are inadequate

## Contraindications
- Inability to place proximal to wound

## Procedure
1. Apply tourniquet proximal to wound according to manufacturer’s instructions. Avoid placing over joints.
2. Tighten tourniquet until bleeding stops.
3. Apply second tourniquet proximal to first (directly adjacent) if needed.
4. Note the time and date of application on the tourniquet or patient’s skin near the tourniquet.
5. Monitor for recurrent hemorrhage.
6. Provide analgesia after application when possible.
7. Tourniquets should only be removed by the receiving facility, once properly placed.

## Complications
- Pain
- Even when properly applied may cause nerve and vascular damage as well as tissue loss

## Notes
- Tourniquets may be used as first line treatment in:
  - Traumatic Cardiac Arrest
  - During incidents with ongoing threats – Reference CS21
  - When other standard methods of hemorrhage control are not feasible

## References
- [https://www.narescue.com/combat-application-tourniquet-c-a-t](https://www.narescue.com/combat-application-tourniquet-c-a-t)
CP18 TRANSCUTANEOUS PACING (TCP)

**Indications:**
Unstable bradycardia

**Contraindications:**
None

**Cautions:**
Although TCP is a painful procedure, initiation of pacing must not be delayed for analgesia in the unstable patient.

**Procedure:**

a. Demand Mode (default) Pacing with Phillips MRX

1. Apply monitoring electrodes
2. Press the Lead Select button to select the best lead with an easily detectable R-Wave
3. Apply multifunction electrode pads
4. Turn the Therapy Knob to the PACER position
5. Verify that the white R-wave markers appear above or on the electrocardiogram (ECG) waveform.
6. Press PACER RATE and increase the rate to 60 BPM initially.
7. Press PACER OUTPUT and increase the output to 60 milliamps initially
8. Press START PACING. The message PACING appears
9. Rapidly increase energy in increments of 10 milliamps until electrical capture is attained.
10. Increase the output until cardiac capture occurs.

**NOTE** - Spontaneous beats may be present which are not associated with the delivery of pace pulses. Additionally, if the patient’s heart rate is above the pacer rate, pace pulses are not delivered and, therefore, pacing markers do not appear. A pulse oximeter can be useful for confirming capture (by comparing the pulse rate measured by the pulse oximeter to the set pacing rate) and perfusion.

b. Fixed Mode Pacing with Phillips MRXc - Spontaneous beats may be present which are not associated with the delivery of pace pulses. Additionally, if the patient’s heart rate is above the pacer rate, pace pulses are not delivered and, therefore, pacing markers do not appear. A pulse oximeter can be useful for confirming capture (by comparing the pulse rate measured by the pulse oximeter to the set pacing rate) and perfusion.

1. Apply multifunction electrode pads
2. Turn the Therapy Knob to the PACER position
3. Change the pacer mode to Fixed Mode
4. Press **PACER RATE** and increase the rate to 60 BPM initially.
5. Press **PACER OUTPUT** and increase the output to 60 milliamps initially.
7. Rapidly increase energy in increments of 10 milliamps until electrical capture is attained.
8. Increase the output until cardiac capture occurs.

**NOTE** - Spontaneous beats may be present which are not associated with the delivery of pace pulses. Additionally, if the patient’s heart rate is above the pacer rate, pace pulses are not delivered and, therefore, pacing markers do not appear.

A pulse oximeter can be useful for confirming capture (by comparing the pulse rate measured by the pulse oximeter to the set pacing rate) and perfusion.

c. For units still using the Life Pak 12.

1. Attach both monitoring and therapy cable (Quik Combo) electrodes to patient.
2. Select lead for monitoring allowing best display of R wave.
3. Press Pacer button (LED comes on) and confirm triangular sensor markers are present on electrocardiogram (ECG).
4. Set Rate and Current to 60 BPM and 60 milliamps.
5. Rapidly increase energy in increments of 10 milliamps until electrical capture is attained.
6. You must verify the presence of a pulse (mechanical capture) correlating to each beat.

**Complications:**

Pain, Burns, failure to achieve or maintain electrical and mechanical capture.

**Notes:**

Paramedics are responsible to be intimately familiar with their diagnostic and therapeutic equipment. This procedure cannot cover every eventuality and clinicians are encouraged to reference manufacturers’ manuals.
Normal Childbirth Procedure:

- Position patient supine, knees drawn up and buttocks elevated.
- Use sterile or aseptic technique.
- Coach patient to breathe deeply between contractions and to PUSH with contractions.
- Upon crowning, control with gentle pressure and support head during delivery. **If cord is looped (nuchal) around neck, gently slip it over the infant's head. If unable to do so, clamp and cut the cord.**
- Suction mouth, then nose of infant as soon as possible.
- With gentle pressure, guide the infant's head downward to deliver the anterior shoulder and then upward to release the posterior shoulder.
- Upon delivery, hold infant firmly in head dependent position to facilitate drainage of secretions. Clear airway of any secretions with sterile gauze and repeat suction of mouth then nose if needed.
- Apply two clamps to umbilical cord after it stops pulsating. Place the first one approximately ten (10) inches from the infant and the second is placed 2"-3" proximal to the first clamp (7"-8" from infant's abdomen). Cut cord between the clamps and check for umbilical cord bleeding. If there is evidence of umbilical cord bleeding, apply additional clamp(s) as needed.
- Dry infant and wrap in warm, dry towels/blanket (cover infant's head).
- Allow mother to hold infant if no s/s of distress prior to transport.
- Document infant's gender, time and geographical location of birth.
- If infant resuscitation is needed, follow Neonatal Resuscitation Protocol.

**Delivery of placenta (do not delay transport)**

- As the placenta delivers, encourage the mother to push with contractions.
- Never "pull on" the umbilical cord to assist with placenta delivery.
- Place the placenta in a plastic bag or container and transport with mother.
- Following delivery of placenta, apply firm fundal massage to help control bleeding.
Background: A needle cricothyroidotomy is a TEMPORARY emergency airway for a pediatric patient up to the age of 10 years old, when other methods are ineffective or contraindicated. It is a skill required in less than 1% of all pediatric patients.

Indications: Inability to adequately ventilate with an established airway of other means (e.g. bag-valve-mask device and OPA or endotracheal tube) due to:
  - Severe oral or facial trauma

Contraindications:
  - Neck tumors that obstruct anatomical landmarks
  - Inability to identify appropriate landmarks

Cautions:
  - This is a rescue procedure ONLY.

Equipment:
  - Alcohol preps
  - 14 gauge – 1 inch intravenous catheter
  - 10mL syringe
  - 3.0 Endotracheal tube
  - Pediatric bag-valve-mask (BVM)

Procedure:
  - Position patient in a supine position. Slightly hyperextend neck (without suspicion of a c-spine injury)
  - Secure larynx laterally between thumb and forefinger
  - Identify the cricothyroid membrane utilizing anatomical landmarks
- Prep area with alcohol prep pads
- Insert the 14 gauge intravenous catheter at a 45 degree angle caudally (towards feet).
- Pull back on syringe while inserting catheter. Once you are able to freely pull back air, you are in the trachea.

- Once placement in the trachea is confirmed, advance the plastic cannula along the needle into the trachea until the hub rests against the neck.
- Carefully remove the intravenous needle while maintaining the catheter securely in place.
- Attached the 15 mm adapter (removed from the 3.0 endotracheal tube) to the intravenous catheter hub.

- Ventilate at a baseline rate of 12 – 16 breaths per minute.
- Adjust the ventilation rate to achieve an SpO2 greater than 94% and ETCO2 of 35 – 45 mmHg. Ensure adequate time for exhalation
- Secure the catheter by the best method available, recognizing that this method may be by direct control with hands on the device
Background:

Because of the uncontrolled environments encountered in prehospital care and the fact that all our airways are “Crash Airways” every attempt at prehospital airway management should be considered a “Difficult Airway.” Success in management is predicated on an algorithmic approach focused on preparedness and thinking several steps ahead.

Pediatric prehospital airway management is particularly anxiety inducing and requires an organized stepwise approach. It is important to remember that research has demonstrated that outcomes are equivalent in pediatric patients managed with either prehospital BVM or ETI. Pediatric facilitated intubation is not to be performed except in exceptional circumstances and after OLMC consultation.

Prehospital Pediatric airway management will be approached in the following stepwise fashion:

I. All pediatric patients requiring ventilatory assistance will be primarily managed with appropriate positioning, bag-valve-mask (BVM), and airway adjunct (NPA/OPA) when such a device is not contraindicated.

II. Clinicians may attempt entotracheal intubation with a cuffed (do not inflate) endotracheal tube if bag-valve-mask (BVM) is inadequate to maintain ventilation and/or oxygenation. Equipment size will be determined by the patient’s length, not the weight.

III. No more than two (2) total attempts at direct laryngoscopy may be performed.

IV. Needle cricothyroidotomy (See Needle Thoracostomy Procedure) shall be performed as a last resort on the pediatric patient who’s airway is unable to be managed using any other means.

V. Pediatric patients who are receiving positive pressure ventilation (bag-valve-mask (BVM) or intubated) should have Orogastric tube (See Orogastric Tube Insertion Procedure) placed unless contraindicated to decompress the stomach and facilitate ventilation.

Individual Procedures:

1. Pediatric Bag Valve Mask Ventilation

   1. Indications:
      - Respiratory insufficiency/failure/arrest.
   2. Contraindications:
      - None
   3. Cautions:
      - Effective seal is crucial and may be difficult in pediatric patients.
      - Facial trauma may further complicate.
   4. Procedure:
      a. Assemble equipment per manufacturer’s directions and connect to oxygen source if available.
      b. Attach ETCO2 between mask and bag.
c. Position patient in the “Sniffing Position” (i.e. place a folded sheet under the scapulae <2 years old or under the occiput >2 years old).

d. Place NPA/OPA if patient able to tolerate and not contained.
e. Utilizing 2 person technique whenever possible, ventilate at baseline rate of 12-16 breaths per minute. Adjust ventilation rate to achieve adequate SaO2 and ETCO2 35-45mmHg.

5. Complications:
   - Inability to maintain adequate seal.
   - Inappropriate hyperventilation.
   - Gastric distention
   - Hypotension and/or Pneumothorax resulting from positive pressure ventilation.

2. Pediatric Endotracheal Intubation
   1. Indications:
      - Respiratory insufficiency/failure/arrest
   2. Contraindications:
      - Ability to effectively manage with BVM ventilation
   3. Cautions:
      - Endotracheal intubation in children will alter hemodynamic status, May be difficult with patients with facial/neck trauma, blood or other secretions in the airway, or limited mobility or congenital malformation of the neck or jaw.

4. Procedure:
   a. Preoxygenate patient
   b. Choose appropriately sized equipment using length-based system.
   c. Assemble all needed equipment within reach of operator (laryngoscope, appropriately sized blade, appropriately sized tube, lubrication, syringe, suction, bag, OPA/NPA, suction, ETCO2)
   d. Perform direct laryngoscopy and pass ET tube so cuff is just distal to the vocal cords. Max 15 seconds per attempt and 2 attempts TOTAL.
   e. DO NOT inflate cuff.
   f. Attach ETCO2 and ventilate to check for bilateral breath sounds, quiet epigastrum, and confirm placement with ETCO2.
   g. Secure tube with commercial tube holder device.
   h. Ventilate at a baseline rate of 12-16 breaths per minute. Adjust ventilation to maintain adequate SaO2 and ETCO2 35-45mmHg.

5. Complications:
   - Inability to place tube, esophageal placement, mainstem placement, or unrecognized displacement.
3. **Pediatric Facilitated Intubation**
   1. **Indications**
      - Respiratory insufficiency/failure/arrest and inability to manage with BVM ventilation or standard endotracheal intubation.
   2. **Contraindications**
      - Allergic or adverse reaction history to any of the medications.
   3. **Cautions**
      - None

**OLMC CONSULT IS MANDATORY PRIOR TO ATTEMPTING FACILITATED INTUBATION!**

(Prehospital pediatric facilitated intubation is generally not indicated and should only be considered in exceptional circumstances in consultation with the OLMC physician)

Extreme caution should be exercised prior to attempting facilitated intubation to avoid administration in patients whom airway management is anticipated to be particularly difficult.

**Procedure:**

a. Prepare all equipment as for standard pediatric endotracheal intubation.

b. Ensure patent intravenous/intraosseous access.

c. Administer Fentanyl 2mg/kg and Etomidate 0.3 mg/kg.

d. Perform Pediatric Endotracheal Intubation as above.

**Complications:**

- Adverse reactions to medications, ineffectiveness of medications, sedation with failure to secure airway.
CP22 TRACTION SPLINT

**Indications:**

- Treatment of unilateral proximal third and mid-shaft femoral fractures
- Pain relief

**Contraindications:**

- Pelvic fracture
- Distal femur or supracondylar fractures
- Compound or open fractures of the femur
- Fractures of the ankle and foot

**Cautions:**

- None

**Procedure:**

a. Position the Sager S301 between the patient’s legs resting the Ischial Perineal Cushion (the saddle) against the Ischial Tuberosity, with the shortest end of the articulating base towards the ground.

b. The Pulley Wheel should be on the same side and towards the injured limb.

c. Apply the Abductor Bridle (thigh strap) around the upper thigh of the injured limb.

d. Push the Ischial Perineal Cushion gently down while at the same time pulling the thigh strap laterally under the patient’s thigh.

e. Tighten the thigh strap lightly.

f. Lift the Spring Clip to extend the inner shaft until the Pulley (Traction) Wheel is adjacent to the patient’s heels.

g. Note the absence or presence of distal pulses. Check for sensation.

h. Position the Malleolar Harness (ankle harness) beneath the heel(s) and just above the ankle.

i. Fold down the number of comfort cushions needed to engage all of the ankle above the medial and lateral Malleoli.

j. Using the attached hook and loop straps, wrap the ankle harness around the ankle to secure snugly.

k. Pull control tabs on the ankle harness to shorten the Ankle Sling, pulling it up against the sole of the foot.

l. Extend the splint shaft to achieve the amount of traction desired, while observing the amount registered on the Traction Scale (use 10% of the patient’s weight per Fractured femur up to 7 kg (15 pounds)).

m. At the hollow of the knees, gently slide the large elastic Leg Cravat through and upwards to the thigh repeating with the smaller cravats to minimize lower and mid-limb movement.
n. Adjust the thigh strap at the upper thigh making sure it is not too tight but snug and secure, then firmly secure the elastic Leg Cravats.

o. Apply the Pedal Pinion around the feet to prevent rotation.

p. Note the presence or absence of distal pulses. Check for sensation.

Complications:
- Inadequate or excessive traction
- Improper positioning
- Increased pain (rare)
- Neurovascular compromise
**CP23 Hyfin Vent Compact Chest Seal**

<table>
<thead>
<tr>
<th>Indications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Penetrating wounds to the chest</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contraindications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Anticipate difficulty with excess blood, skin moisture, or debris</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clean and dry the wound as practical</td>
</tr>
<tr>
<td>2. Remove one vented chest seal from release liner</td>
</tr>
<tr>
<td>3. Place firmly over wound, centered, with adhesive side down</td>
</tr>
<tr>
<td>4. Apply light direct pressure to assure occlusive seal</td>
</tr>
<tr>
<td>5. Repeat with second dressing if a second wound (e.g. exit wound) is present</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Improper placement may contribute to the development of tension pneumothorax</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>References</th>
</tr>
</thead>
</table>
**CP24 Wound Packing with QuikClot® Combat Gauze and Emergency Trauma Dressing (ETD)**

<table>
<thead>
<tr>
<th><strong>Indications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Control of life threatening external hemorrhage in areas where proximal tourniquet application is not possible (e.g. junctional wounds) and standard methods such as direct pressure are inadequate.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Contraindications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Cautions</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hemorrhage control using external hemostatic dressings may be difficult at non-compressible sites</td>
</tr>
<tr>
<td>• Avoid hemostatic dressing contact with eyes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Procedure</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Expose wound, remove excess pooled blood from around wound while preserving any clots already in the wound if possible.</td>
</tr>
<tr>
<td>2. Locate source of bleeding and pack hemostatic gauze into wound tightly and directly onto bleeding source. Use as much gauze as needed to stem blood flow. Remainder of roll can be used on top of wound or to fill wound cavity.</td>
</tr>
<tr>
<td>3. Apply manual direct pressure for 3 – 5 minutes or until bleeding stops.</td>
</tr>
<tr>
<td>4. Leave gauze in place. Place the pad of the ETD dressing over wound and wrap tightly to create a pressure dressing. Secure as directed.</td>
</tr>
<tr>
<td>5. Consider pain management.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Complications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Failure to adequately control hemorrhage</td>
</tr>
<tr>
<td>• Pain</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Notes</strong></th>
</tr>
</thead>
</table>
| • Wound packing may be used as first line treatment in:  
  o Traumatic Cardiac Arrest  
  o During incidents with ongoing threats – Reference CS21  
  o When other standard methods of hemorrhage control are not feasible |
<p>| • QuikClot® Combat Gauze causes rapid, localized coagulation and the formation of a stable blood clot in a variety of wounds. It does not absorb into the body and is safe to leave in the wound until further medical care is available. QuikClot® Combat Gauze does not produce any heat and controls bleeding faster than conventional methods. |</p>
<table>
<thead>
<tr>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>• <a href="https://www.narescue.com/combat-gauze-z-fold-hemostatic">https://www.narescue.com/combat-gauze-z-fold-hemostatic</a></td>
</tr>
<tr>
<td>• <a href="https://www.narescue.com/responder-emergency-trauma-dressings">https://www.narescue.com/responder-emergency-trauma-dressings</a></td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | - Onset 20 - 30 seconds  
- Duration N/A |
| **Routes of Admin** | Intravenous |
| **Technique for Admin** | Rapid bolus over 1-2 seconds. Administer as proximally as possible & follow with rapid saline flush |
| **PEARLS** | - Prior to administration - advise patient this will make you feel strange  
- Start ECG printer just prior to IV administration  
- Continue printing during IV administration through post administration (10 secs.)  
- Adverse effects are generally self-limiting  
- At time of conversion to normal sinus rhythm, PVCs, PACs, sinus Bradycardia, and sinus tachycardia in addition to various degrees of AV block are seen on the ECG. Usually only last a few seconds and resolve without intervention |
<p>| <strong>Y-Site Incompatibilities</strong> | N/A |
| <strong>Interactions</strong> | N/A |
| <strong>ADDITIONAL INFO</strong> | ADENOSINE |</p>
<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Accuneb, Novosalmol, ProAir HFA, Proventil, Proventil HFA, ReliOn Ventolin HFA, Ventolin, Ventolin HFA, VoSpire ER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class(s)</td>
<td>Bronchodilator (respiratory smooth muscle relaxant); Beta-adrenergic agonist</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Selective beta2-adrenergic agonist that acts prominently on smooth muscles of the trachea, bronchi, uterus and vascular supply to skeletal muscles. Inhibits histamine release. Produces bronchodilation by relaxing smooth muscles of the bronchial tree.</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Relieve bronchospasm associated with acute/chronic asthma, bronchitis or other reversible obstructive airway disease</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Albuterol or Levalbuterol hypersensitivity; congenital long QT syndrome</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>Cardiovascular disease, hypertension, older adults, history of seizures</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>“C”</td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td>Onset 5 - 15 minutes</td>
</tr>
<tr>
<td></td>
<td>Duration 3 - 6 hours</td>
</tr>
<tr>
<td>Routes of Admin</td>
<td>Inhalation</td>
</tr>
<tr>
<td>Technique for Admin</td>
<td>N/A</td>
</tr>
</tbody>
</table>
| PEARLS | - Make every effort to administer via the AeroEclipse handset  
- Limit the use of an aerosol mask  
- One on one coaching will result in positive results |
<p>| Y-Site Incompatibilities | N/A |
| Interactions | N/A |
| ADDITIONAL INFO | ALBUTEROL SULFATE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Cordarone, Nexterone, Pacerone</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Class III anti-arrhythmic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Acts directly on all cardiac tissues by prolonging duration of action potential and refractory period. Slows conduction time through the AV node and can interrupt the re-entry pathways through the AV node. Has anti-anginal and anti-adrenergic properties.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Prophylaxis and treatment of life-threatening ventricular arrhythmias and supraventricular arrhythmias, particularly with atrial fibrillation.</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Amiodarone or benzyl alcohol hypersensitivity; Cardiogenic shock, severe sinus Bradycardia, severe sinus-node dysfunction, QT prolongation syndromes or history of Torsades De Pointes</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Hypotension, CHF, left ventricular dysfunction, older adults, electrolyte imbalance, hypokalemia, hypomagnesemia, hypovolemia, COPD</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“D”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | - Onset N/A  
- Duration N/A |
| **Routes of Admin** | Intravenous |
| **Technique for Admin** | N/A |
| **PEARLS** | - Monitor BP carefully during infusion and slow the infusion if significant hypotension occurs  
- Bradycardia should be treated by slowing the infusion or discontinuing it if necessary  
- Monitor heart rate, rhythm and BP until drug response has stabilized. |
<p>| <strong>Y-Site Incompatibilities</strong> | Aminophylline, amoxicillin, atenolol, digoxin, heparin, levofloxacin, magnesium sulfate, sodium bicarbonate |
| <strong>Interactions</strong> | Significantly decreases digoxin levels, enhances pharmacological effects and toxicities of disopyramide, procainamide, quinidine, flecainide, Lidocaine, verapamil, Diltiazem; Fentanyl may cause Bradycardia or hypotension |
| <strong>ADDITIONAL INFO</strong> | AMIODARONE HYDROCHLORIDE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Alka-Seltzer, A.S.A., Bayer, Bayer Children’s, Ecotrin, St. Joseph’s</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Salicylate, antipyretic, antiplatelet</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Produces analgesia, anti-inflammatory and anti-pyretic effects and reduces platelet aggregation</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Acute coronary syndrome</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to salicylates; sensitivity to other NSAIDs; acute bronchospasm; head trauma, increased intracranial pressure; intracranial bleeding; chronic urticaria; acute GI ulceration, bleeding or other problems; pregnancy; lactation</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Immunosuppressed individuals; asthma; GI disease; anemia;</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C” in first and second trimester/ “D” in third trimester</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Onset</strong> N/A</td>
</tr>
<tr>
<td></td>
<td>• <strong>Duration</strong> N/A</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Oral</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Bleeding time is prolonged 3 – 8 days (life of exposed platelets) following a single 325 mg dose of aspirin</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Anticoagulants increase the risk of bleeding.</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>ASPIRIN</td>
</tr>
<tr>
<td>Trade Name</td>
<td>N/A</td>
</tr>
<tr>
<td>------------</td>
<td>-----</td>
</tr>
<tr>
<td>Class(s)</td>
<td>Anticholinergic; muscarinic; antiarrhythmic</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Selectively blocks all muscarinic responses to acetylcholine (ach), whether excitatory or inhibitory. Antisecretory action (vagolytic effect) suppresses sweating, lacrimation, salivation &amp; secretions from the nose, mouth, pharynx and bronchi. Block vagal impulse to heart with resulting decrease in AV conduction time, increase in heart rate and cardiac output &amp; shortened PR interval. Produces mydriasis.</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Symptomatic bradycardia, organophosphate poisoning</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Tachycardia secondary to cardiac insufficiency; acute hemorrhage; acute MI</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>Myocardial infarction, hypertension, hypotension, coronary artery disease, CHF, tachyarrhythmias, older adults</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>&quot;C&quot;</td>
</tr>
</tbody>
</table>
| Pharmacokinetics | • Onset N/A  
• Duration N/A |
| Routes of Admin | Intravenous, intramuscular |
| Technique for Admin | N/A |
| PEARLS | • Monitor vital signs  
• Heart rate is a sensitive indicator of patient’s response to Atropine  
• Be alert to changes in quality, rate and rhythm of heart rate and respiration and to changes in blood pressure and temperature  
• Initial paradoxical bradycardia following intravenous Atropine usually lasts only 1-2 minutes. It most likely occurs when administered slow via the intravenous route (more than 1 minute) or when small doses (less than 0.5 mg) are used. |
<p>| Y-Site Incompatibilities | N/A |
| Interactions | Procainamide, antihistamines |
| ADDITIONAL INFO | ATROPINE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Electrolyte</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Effective cardiac stabilizer under conditions of hyperkalemia or resuscitation. Rapidly and effectively restores serum calcium levels in acute hypocalcemia. Ionizes readily &amp; provides excess chloride ions that promote acidosis and temporary (1-2 days) diuresis secondary to excretion of sodium.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Hyperkalemia, hypocalcemia</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Ventricular fibrillation, hypercalcemia, digitalis toxicity</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Digitalized patients; cardiac arrhythmias, dehydration, diarrhea, respiratory acidosis-Myocardial infarction, hypertension, hypotension, coronary artery disease, CHF, tachyarrhythmias, older adults</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“A” (“C” in high doses)</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | - **Onset** N/A  
- **Duration** N/A |
| **Routes of Admin** | Intravenous |
| **Technique for Admin** | N/A |
| **PEARLS** | - Monitor ECG and vital signs  
- Intravenous administration may be accompanied by cutaneous burning sensation and peripheral vasodilation, with moderate fall in blood pressure |
<p>| <strong>Y-Site Incompatibilities</strong> | Propofol, sodium bicarbonate |
| <strong>Interactions</strong> | Other electrolytes |
| <strong>ADDITIONAL INFO</strong> | CALCIUM CHLORIDE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Dextrose 5%, Dextrose 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Hypoglycemia, solution for IV medication drip</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>May be contraindicated in patients with known allergy to corn or corn products.</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Multiple doses of Dextrose injections may result in significant hypokalemia</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
</tbody>
</table>

**Pharmacokinetics**
- **Onset**: N/A
- **Duration**: N/A

**Routes of Admin**
- Intravenous

**Technique for Admin**
- DO NOT use plastic containers in series connections
- Pressurizing intravenous solutions contained in flexible plastic containers to increase flow rates can result in air embolism if the residual air in the container is not fully evacuated prior to administration.
- Use of a vented intravenous administration set with the vent open could result in air embolism

**PEARLS**
- N/A

**Y-Site Incompatibilities**
- Dextrose should not be administered simultaneously with blood through the same administration set because of the possibility of pseudoagglutination or hemolysis

**Interactions**
- N/A

**ADDITIONAL INFO**
- DEXTROSE
<table>
<thead>
<tr>
<th>Trade Name</th>
<th>Diastat, Valium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class(s)</td>
<td>benzodiazepine; anticonvulsant; anxiolytic</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Produces CNS depression resulting in sedation, hypnosis, skeletal muscle relaxation and anticonvulsant activity dependent on the dosage.</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Seizure, sedation, alcohol withdrawal and muscle spasms.</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Pregnancy, shock, coma, acute alcohol intoxication, depressed vital signs and obstetric patients</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>Epilepsy, psychoses, mental depression, bipolar disease, dementia, Parkinson’s disease, organic brain syndrome, drug abuse, extreme caution in older adults, the very ill and patients with COPD or asthma</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>&quot;D&quot;</td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Onset 1 – 5 minutes intravenous or 15 – 30 minutes intramuscular</td>
</tr>
<tr>
<td></td>
<td>• Duration 15 minutes to 1 hour intravenous</td>
</tr>
<tr>
<td>Routes of Admin</td>
<td>Intravenous, intramuscular</td>
</tr>
<tr>
<td>Technique for Admin</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• DO NOT dilute or mix with any other drug</td>
</tr>
<tr>
<td></td>
<td>• Intravenous administration – take at least 1 minute for each 5 mg given to adults and take at least 3 minutes to inject 0.25 mg/kg body weight of children</td>
</tr>
<tr>
<td></td>
<td>• Intravenous administration – inject as close as possible to vein insertion</td>
</tr>
<tr>
<td></td>
<td>• Intramuscular administration – give deep into large muscle mass. Inject slowly.</td>
</tr>
<tr>
<td>PEARLS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• DEA Class IV Controlled Substance</td>
</tr>
<tr>
<td></td>
<td>• Monitor for adverse reactions</td>
</tr>
<tr>
<td></td>
<td>• Monitor cardiac and respiratory status post administration</td>
</tr>
<tr>
<td>Y-Site Incompatibilities</td>
<td>Diltiazem, furosemide, heparin, pancuronium, potassium chloride, propofol, vecuronium</td>
</tr>
<tr>
<td>Interactions</td>
<td>Alcohol, CNS depressants</td>
</tr>
<tr>
<td>ADDITIONAL INFO</td>
<td>DIAZEPAM</td>
</tr>
<tr>
<td>Trade Name</td>
<td>Cardizem</td>
</tr>
<tr>
<td>------------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Class(s)</td>
<td>Calcium channel blocking agent, antiarrrhythmic, antihypertensive</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Inhibits calcium ion influx into vascular smooth muscle and myocardium, relaxing smooth muscle, decreasing peripheral vascular resistance, dilating coronary arteries and prolonging AV node refractory period</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Atrial fibrillation, atrial flutter, supraventricular tachycardia</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Known hypersensitivity to the drug; sick sinus syndrome (unless pacemaker is in place and firing); acute MI; severe hypotension (systolic BP &lt;90 or diastolic BP &lt;60); bleeding aneurysms.</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>SA node dysfunction, sick sinus syndrome with functioning pacemaker, right ventricular dysfunction, CHF, severe bradycardia, conduction abnormalities, older adults, pregnancy</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>“C”</td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td>• Onset N/A</td>
</tr>
<tr>
<td></td>
<td>• Duration 2 – 3 hours</td>
</tr>
<tr>
<td>Routes of Admin</td>
<td>Intravenous</td>
</tr>
<tr>
<td>Technique for Admin</td>
<td>• Give undiluted</td>
</tr>
<tr>
<td>PEARLS</td>
<td>• Give as a bolus dose over 2 minutes.</td>
</tr>
<tr>
<td></td>
<td>• Pinellas County EMS utilizes a lower max dose than may be referenced</td>
</tr>
<tr>
<td>Y-Site Incompatibilities</td>
<td>Aminophylline, diazepam, Methylprednisolone, sodium bicarbonate</td>
</tr>
<tr>
<td>Interactions</td>
<td>Furosemide</td>
</tr>
<tr>
<td>ADDITIONAL INFO</td>
<td>DILTIAZEM</td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Allerdryl, Benadryl, Benadryl Dye-Free, Sleep Eze 3</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Antihistamine</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Non-selectively antagonizes central and peripheral histamine H1 receptors; suppresses the medullary cough center (antitussive); possesses anticholinergic properties, resulting in antidyskinetic, antiemetic and sedative effects</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Hives, rashes and itching related to allergic conditions</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to antihistamines of similar structure; lower respiratory tract symptoms</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Asthma; COPD; convulsive disorders; hypertension; cardiovascular disease; older adults; infants and young children</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | **Onset** 15 - 30 minutes  
**Duration** 4 - 7 hours |
| **Routes of Admin** | Intravenous, intramuscular, oral |
| **Technique for Admin** | Intravenous administration – give at a rate of 25 mg or fraction thereof over one minute  
Intramuscular administration – give deep into large muscle mass  
Avoid perivascular or subcutaneous injections because of irritating effects |
<p>| <strong>PEARLS</strong> | Monitor for adverse reactions |
| <strong>Y-Site Incompatibilities</strong> | Aminophylline, ampicillin |
| <strong>Interactions</strong> | Alcohol, CNS depressants |
| <strong>ADDITIONAL INFO</strong> | DIPHENHYDRAMINE HYDROCHLORIDE |</p>
<table>
<thead>
<tr>
<th>Trade Name</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class(s)</td>
<td>Alpha and beta adrenergic agonist; inotropic</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Stimulates alpha and beta-1 adrenergic and dopaminergic receptors; produces inotropic, chronotropic, renal/splanchnic vasodilatory (at low doses), and pressor (at high doses) effects</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Correct hemodynamic imbalance in shock syndrome due to MI (cardiogenic shock), trauma, septic shock, CHF</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Hypersensitivity to drug. Uncorrected tachyarrhythmias or ventricular fibrillation</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>CAD, cold injury, acute MI, arterial embolism, children less than 2</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>“C”</td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td>Onset Less than 5 minutes Duration Less than 10 minutes</td>
</tr>
<tr>
<td>Routes of Admin</td>
<td>Intravenous</td>
</tr>
<tr>
<td>Technique for Admin</td>
<td>Monitor infusion continuously for free flow Avoid extravasation which can result in tissue sloughing and gangrene Use a large vein of the antecubital fossa Protect from light</td>
</tr>
<tr>
<td>PEARLS</td>
<td>N/A</td>
</tr>
<tr>
<td>Y-Site Incompatibilities</td>
<td>N/A</td>
</tr>
<tr>
<td>Interactions</td>
<td>Beta blockers antagonize cardiac effects, alpha blockers antagonize peripheral vaso-constriction</td>
</tr>
<tr>
<td>ADDITIONAL INFO</td>
<td>DOPAMINE HYDROCHLORIDE</td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Adrenaline, EpiPen, Adrenaclick, Auvi-Q, Twinject</td>
</tr>
<tr>
<td>----------------</td>
<td>---------------------------------------------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Alpha and beta adrenergic agonist; cardiac stimulant; vasopressor</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Stimulates alpha and beta adrenergic receptors (sympathomimetic)</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Restore cardiac rhythm in cardiac arrest; anaphylactic reactions; acute asthma attack; temporary relief of bronchospasm, mucosal congestion</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to drug; hemorrhagic, traumatic or cardiogenic shock; arrhythmias</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Older adults; hypertension; diabetes mellitus</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Onset 3 - 5 minutes</td>
</tr>
<tr>
<td></td>
<td>• Duration N/A</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, subcutaneous, intramuscular</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Protect from exposure to light at all times</td>
</tr>
<tr>
<td></td>
<td>• DO NOT remove ampule or vial from carton until ready to use</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>May increase hypotension in circulatory collapse or hypotension caused by phenothiazines. Additive toxicities with other sympathomimetics.</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>EPINEPHRINE</td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Amidate</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Ultrashort-acting nonbarbiturate hypnotic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Induces sedation and amnesia</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Induction of general anesthesia for facilitation of airway management</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to the drug</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Older adults; hypertension; diabetes mellitus</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • **Onset** Within 60 seconds  
   • **Duration** N/A |
| **Routes of Admin** | Intravenous                                  |
| **Technique for Admin** | • Intravenous administration – inject over a period of 30 – 60 seconds  
   • Inject into large forearm vein |
<p>| <strong>PEARLS</strong>        | • Handled in the same manner as all controlled substances |
| <strong>Y-Site Incompatibilities</strong> | • Vecuronium     |
| <strong>Interactions</strong>  | N/A                                           |
| <strong>ADDITIONAL INFO</strong> | <strong>ETOMIDATE</strong>                                |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Sublimaze</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Analgesic; opiate agonist</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Synthetic, potent agonist analgesic that causes analgesia and sedation.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Short acting analgesia for pain and sedation</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Head injuries, older adults, angina, hypotension, bradyarrhythmias</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>&quot;B&quot;</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
<tr>
<td>Onset</td>
<td>Immediate intravenous, 7 – 15 minutes intramuscular</td>
</tr>
<tr>
<td>Duration</td>
<td>30 – 60 minutes intravenous, 1 – 2 hours intramuscular</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, intranasal, intramuscular</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>Monitor vital signs and observe patient for signs of skeletal and thoracic muscle (depressed respirations) rigidity and weakness</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>DEA Class II Controlled Substance</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Alcohol and other CNS depressants potentiate effects</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td><strong>FENTANYL CITRATE</strong></td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Glucagen</td>
</tr>
<tr>
<td>---------------</td>
<td>----------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Antihypoglycemic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Increases blood glucose secondary to gluconeogenesis, which is the breakdown of glycogen to glucose in the liver. Action in hypoglycemia relies on presence of adequate liver glycogen stores.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Hypoglycemia with the inability to obtain vascular access</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to glucagon or protein compounds; depleted glycogen stores in liver</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Cardiac disease; malnutrition; children</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • **Onset** 5 – 20 minutes  
• **Duration** 1 – 1.5 hours |
| **Routes of Admin** | Intravenous, intranasal, subcutaneous |
| **Technique for Admin** | • Intravenous administration – give over 1 minute |
| **PEARLS** | • Patient usually awakens from (diabetic) hypoglycemic coma 5 – 20 minutes after glucagon injection.  
• Give PO carbohydrate as soon as possible after patient regains consciousness. |
<p>| <strong>Y-Site Incompatibilities</strong> | N/A |
| <strong>Interactions</strong> | N/A |
| <strong>ADDITIONAL INFO</strong> | GLUCAGON HYDROCHLORIDE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Cyanokit</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Antidote</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Binds cyanide to form nontoxic cyanocobalamin that is then excreted in urine</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Treatment of known or suspected cyanide poisoning</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>None</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Known anaphylactic reactions to hydroxocobalamin or cyanocobalamin</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>&quot;C&quot;</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • Onset N/A  
• Duration N/A |
| **Routes of Admin** | Intravenous |
| **Technique for Admin** | • Draw one complete PEP kit while setting up to administer Hydroxocobalamin  
• Following the addition of the diluent to the lyophilized powder, the vial should be repeatedly inverted and rocked, NOT SHAKEN, for at least 60 seconds prior to infusion.  
• Intravenous administration – give initial dose over 15 minutes  
• Cyanokit requires a dedicated intravenous line for administration |
| **PEARLS** | • The recommended diluent is 0.9% Sodium Chloride  
• Lactated Ringers or Dextrose 5% in Water have also been found to be compatible  
• Give PO carbohydrate as soon as possible after patient regains consciousness |
<p>| <strong>Y-Site Incompatibilities</strong> | Sodium Nitrite, Sodium Thiosulfate, blood products |
| <strong>Interactions</strong> | N/A |
| <strong>ADDITIONAL INFO</strong> | HYDROXOCOBALAMIN |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Atrovent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Anticholinergic; antimuscarinic; bronchodilator</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Bronchodilation by inhibiting acetylcholine at its receptor sites, thereby blocking bronchoconstriction. Also abolishes vagally mediated reflex bronchospasm triggered by such non-specific agents as cigarette smoke, inert dusts, cold air, and a range of inflammatory mediators.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Adjunct to Albuterol in asthma/COPD</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to Atropine</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Pregnancy</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
</tbody>
</table>
  - **Onset** N/A  
  - **Duration** 4 - 6 hours |
<p>| <strong>Routes of Admin</strong> | Inhalation |
| <strong>Technique for Admin</strong> | N/A |
| <strong>PEARLS</strong> | N/A |
| <strong>Y-Site Incompatibilities</strong> | N/A |
| <strong>Interactions</strong> | N/A |
| <strong>ADDITIONAL INFO</strong> | <a href="#">IPRATROPIUM BROMIDE</a> |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Class IB antiarrhythmic; local anesthetic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Exerts antiarrhythmic action by suppressing automaticity in His-Purkinje system. It decreases pain through a reversible nerve conduction blockade.</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Ventricular dysrhythmias; analgesia prior to infusion of fluids via intraosseus needle in conscious patient</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>History of hypersensitivity to amide-type local anesthetics, supraventricular arrhythmias; severe degrees of sinoatrial, atrio-ventricular and intraventricular heart block.</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>CHF, marked hypoxia, respiratory depression, hypovolemia, shock</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td>Onset 45 – 90 seconds intravenous</td>
</tr>
<tr>
<td></td>
<td>Duration 10 – 20 minutes intravenous</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Inhalation, intraosseous</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>Monitor blood pressure and ECG constantly; assess respiratory and neurologic status frequently to avoid potential overdosage and toxicity.</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>LIDOCAINE HYDROCHLORIDE</td>
</tr>
<tr>
<td>Trade Name</td>
<td>N/A</td>
</tr>
<tr>
<td>-------------</td>
<td>-----</td>
</tr>
<tr>
<td>Class(s)</td>
<td>Electrolyte</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Smooth muscle relaxant and anticonvulsant in labor and delivery and cardiac disorders.</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Control seizures in toxemia of pregnancy, epilepsy; Prophylaxis and treatment of hypomagnesemia; Severe acute asthma</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Myocardial damage; AV heart block; cardiac arrest except for certain arrhythmias; hypermagnesemia</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>Acute MI; pregnancy</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>“A”</td>
</tr>
</tbody>
</table>
| Pharmacokinetics | • Onset 1 hour intramuscular  
• Duration 30 minutes intravenous |
| Routes of Admin | Intravenous, intramuscular |
| Technique for Admin | • Intravenous, intramuscular |
| PEARLS | • Observe constantly when administered IV  
• Check blood pressure and pulse every 10-15 minutes or more often if indicated  
• Monitor respiratory rate closely. |
<p>| Y-Site Incompatibilities | Amiodarone, ciprofloxacin, haloperidol |
| Interactions | Sodium bicarbonate, neuromuscular blocking agents add to respiratory depression and apnea |
| ADDITIONAL INFO | MAGNESIUM SULFATE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Solu-Medrol</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Glucocorticoid</td>
<td></td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Anti-inflammatory, immune-suppressant</td>
<td></td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Asthma/COPD (chronic inflammatory conditions); Acute allergic/anaphylactic reactions</td>
<td></td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to corticosteroid drugs</td>
<td></td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>GI ulceration or disease; hypertension; CHF; diabetes</td>
<td></td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
<td></td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Onset</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>• Duration</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, intramuscular</td>
<td></td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Intramuscular administration - deep into a large muscle mass (not deltoid)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Give each intravenous dose over 2 – 3 minutes</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Furosemide, Thiazide diuretics increase potassium loss</td>
<td></td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td><a href="#">METHYLPREDNISOLONE SODIUM SUCCINATE</a></td>
<td></td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Versed</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>benzodiazepine; anticonvulsant; anxiolytic</td>
<td></td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Produces CNS depression resulting in sedation, hypnosis, skeletal muscle relaxation and anticonvulsant activity dependent on the dosage.</td>
<td></td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Sedative, impair memory, induce hypnosis</td>
<td></td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Intolerance to benzodiazepines; shock; coma; acute alcohol intoxication; status asthmaticus; pregnancy</td>
<td></td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>COPD, cardiac disease, dementia, psychosis, CHF, bipolar disorder, older adults</td>
<td></td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“D”</td>
<td></td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset</td>
<td>1 – 5 minutes intravenous, 5 – 15 minutes intramuscular</td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td>Less than 2 hours intravenous, 1 – 6 hours intramuscular</td>
<td></td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, intramuscular, intranasal</td>
<td></td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intramuscular administration</td>
<td>- deep into a large muscle mass (not deltoid)</td>
<td></td>
</tr>
<tr>
<td>Intranasal administration</td>
<td>- 1 mL max volume of drug per nare</td>
<td></td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>DEA Class IV Controlled Substance</td>
<td></td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>Amoxicillan, bumetanide, furosemide, dexamethasone, sodium bicarbonate, thiopental</td>
<td></td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Lactated ringers, pentobarbital, prochlorperazine</td>
<td></td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>MIDAZOLAM HYDROCHLORIDE</td>
<td></td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Astramorph, Duramorph</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Analgesic; narcotic</td>
<td></td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Opiate agonist</td>
<td></td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Pain management</td>
<td></td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to opiate agonists; convulsive disorders; acute bronchial asthma; respiratory depression; chemical irritant induced pulmonary edema; hypovolemia</td>
<td></td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Head trauma; increased intracranial pressure; toxic psychosis; cardiac arrhythmias; very old; very young; pregnancy</td>
<td></td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“D”</td>
<td></td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • Onset N/A  
                       • Duration Up to 7 hours |
| ** Routes of Admin** | Intravenous, intramuscular |
| **Technique for Admin** | Intravenous administration – give slow. Avoid rapid infusion. |
| **PEARLS**      | • DEA Class II Controlled Substance  
                       • Assess vital signs at regular intervals |
<p>| <strong>Y-Site Incompatibilities</strong> | N/A |
| <strong>Interactions</strong> | Aminophylline, haloperidol, heparin, meperidine, nitrofurantoin, pentobarbital, Phenobarbital, sodium bicarbonate, phenytoin |
| <strong>ADDITIONAL INFO</strong> | MORPHINE SULFATE |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>Narcan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Opiate antagonist</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Competitively inhibits opiate receptors</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Narcotic overdose</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to naloxone, naltrexone, nalmefene</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Known or suspected narcotic dependence; brain tumor; head trauma; increased ICP; seizure disorders; pregnancy</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td>Onset 2 minutes, Duration 45 minutes</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, intramuscular, intranasal</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>May precipitate opiate withdrawal if administered to a patient who is opiate dependent, Effects of Naloxone usually diminish 20 – 40 minutes after administration</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Reverses analgesic effects of narcotic (opiate) agonists and narcotic (opiate) agonist-antagonist</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>NALOXONE HYDROCHLORIDE</td>
</tr>
<tr>
<td>Trade Name</td>
<td>NitroMist, Nitrostat</td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td>Class(s)</td>
<td>Nitrate vasodilator</td>
</tr>
<tr>
<td>Action(s)</td>
<td>Vasodilator which has effects on both arteries and veins</td>
</tr>
<tr>
<td>Indication(s)</td>
<td>Angina, CHF, acute coronary syndrome</td>
</tr>
<tr>
<td>Contraindication(s)</td>
<td>Hypersensitivity to drug, severe anemia, increased ICP, hypovolemia</td>
</tr>
<tr>
<td>Precaution(s)</td>
<td>Pregnancy</td>
</tr>
<tr>
<td>Pregnancy Class</td>
<td>“C”</td>
</tr>
<tr>
<td>Pharmacokinetics</td>
<td></td>
</tr>
<tr>
<td>• Onset</td>
<td>2 minutes</td>
</tr>
<tr>
<td>• Duration</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Routes of Admin</td>
<td>Sublingual</td>
</tr>
<tr>
<td>Technique for Admin</td>
<td></td>
</tr>
<tr>
<td>• Bottle requires an initial priming of 10 sprays. The bottle will then stay primed for 6 weeks. If not used in 6 weeks, it can be re-primed with 2 sprays</td>
<td></td>
</tr>
<tr>
<td>• Do Not shake the bottle</td>
<td></td>
</tr>
<tr>
<td>• Spray can be released onto or under the tongue</td>
<td></td>
</tr>
<tr>
<td>• When the liquid reaches the bottom of the hole on the side of the bottle, the remaining doses will have less than the label content</td>
<td></td>
</tr>
<tr>
<td>PEARLS</td>
<td></td>
</tr>
<tr>
<td>• Monitor patient closely for change in consciousness and for dysrhythmias</td>
<td></td>
</tr>
<tr>
<td>• Approximately 50% of all patients experience mild to severe headaches following Nitroglycerin</td>
<td></td>
</tr>
<tr>
<td>• Supervise ambulation – postural hypotension is possible</td>
<td></td>
</tr>
<tr>
<td>• Check patient for transdermal patch or ointment in place prior to starting Nitroglycerin</td>
<td></td>
</tr>
<tr>
<td>Y-Site Incompatibilities</td>
<td>N/A</td>
</tr>
<tr>
<td>Interactions</td>
<td>Antihypertensive agents compound hypotensive effects; vasodilating effects may be enhanced by sildenafil, vardenafil or tadalafil</td>
</tr>
<tr>
<td>ADDITIONAL INFO</td>
<td>NITROGLYCERIN</td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Zofran, Zofran ODT, Zuplenz, Ondansetron ODT</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>5-HT3 Antagonist, Antiemetic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Prevents nausea and vomiting</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Nausea and / or vomiting</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to Ondansetron</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>QT prolongation or pregnancy, concomitant use of apomorphine</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“B”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• <strong>Onset</strong> N/A</td>
</tr>
<tr>
<td></td>
<td>• <strong>Duration</strong> N/A</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous, intramuscular, oral</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>• Do NOT push orally disintegrating tablet through blister foil. Peel foil back and remove tablet. Tablets will disintegrate with/without liquid</td>
</tr>
<tr>
<td></td>
<td>• Peel open the paper of the outer packaging that displays the product information to access the syringe. Do NOT pop the syringe through</td>
</tr>
<tr>
<td></td>
<td>• Intravenous administration – give dose over 2 – 5 minutes</td>
</tr>
<tr>
<td></td>
<td>• Assure that the needleless luer access device is securely attached before beginning the injection</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td>• Monitor cardiovascular status, especially in patients with a history of coronary artery disease.</td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>Acyclovir, allopurinal, aminophylline, furosemide, lorazepam, methylprednisolone, sodium bicarbonate, TPN.</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>Rifampin</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td><a href="#">ONDANSETRON</a></td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>Glutose, Insta-Glucose, Level Life Fast Acting Glucose Gel</td>
</tr>
<tr>
<td>--------------------</td>
<td>------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Monosaccharide carbohydrate</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Provides an oral source of glucose rapidly utilized for cellular metabolism</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Conscious patient with signs and/or symptoms of hypoglycemia</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Inability to swallow (aspiration risk), altered level of consciousness</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Cannot be absorbed sublingually or buccally</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>N/A</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • **Onset** Within 10 minutes  
  • **Duration** N/A |
<p>| <strong>Routes of Admin</strong>| Oral                                                       |
| <strong>Technique for Admin</strong> | N/A                                                       |
| <strong>PEARLS</strong>         | N/A                                                        |
| <strong>Y-Site Incompatibilities</strong> | N/A                                                       |
| <strong>Interactions</strong>   | N/A                                                        |
| <strong>ADDITIONAL INFO</strong> | N/A                                                        |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Fluid and electrolyte balance agent</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Short-acting, potent systemic antacid; rapidly neutralizes systemic acidosis</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Systemic alkalinizer to correct metabolic acidosis</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypocalcemia, metabolic alkalosis, respiratory alkalosis, vomiting, diuresis</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Pregnancy, hypertension, renal disease, hyperkalemia, older adults</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
<tr>
<td><strong>Pharmacokinetics</strong></td>
<td></td>
</tr>
<tr>
<td>• <strong>Onset</strong></td>
<td>15 minutes</td>
</tr>
<tr>
<td>• <strong>Duration</strong></td>
<td>1 - 2 hours</td>
</tr>
<tr>
<td><strong>Routes of Admin</strong></td>
<td>Intravenous</td>
</tr>
<tr>
<td><strong>Technique for Admin</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>PEARLS</strong></td>
<td></td>
</tr>
<tr>
<td>• Do NOT use Sodium Bicarbonate as an antacid</td>
<td></td>
</tr>
<tr>
<td><strong>Y-Site Incompatibilities</strong></td>
<td>Allopurinol, Amiodarone, Calcium chloride, Diltiazem, Ciprofloxacin, Lidocaine, Midazolam, Ondansetron, Verapamil</td>
</tr>
<tr>
<td><strong>Interactions</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>ADDITIONAL INFO</strong></td>
<td>SODIUM BICARBONATE 8.4%</td>
</tr>
<tr>
<td><strong>Trade Name</strong></td>
<td>N/A</td>
</tr>
<tr>
<td>---------------</td>
<td>-----</td>
</tr>
<tr>
<td><strong>Class(s)</strong></td>
<td>Electrolyte</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Source of water and electrolytes</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>CHF</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | - Onset N/A  
- Duration N/A |
| **Routes of Admin** | Intravenous |
| **Technique for Admin** | - Do not use plastic containers in series connections  
- Do not pressurize intravenous fluids contained in plastic containers |
<p>| <strong>PEARLS</strong> | N/A |
| <strong>Y-Site Incompatibilities</strong> | Reference compatibility of each specific medication |
| <strong>Interactions</strong> | Reference compatibility of each specific medication |
| <strong>ADDITIONAL INFO</strong> | SODIUM CHLORIDE (0.9% IV FLUID) FOR INJECTION |</p>
<table>
<thead>
<tr>
<th><strong>Trade Name</strong></th>
<th>TetraVisc, Pontocaine</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Class(s)</strong></td>
<td>Local anesthetic</td>
</tr>
<tr>
<td><strong>Action(s)</strong></td>
<td>Alpha-adrenergic agonist that causes intense vasoconstriction</td>
</tr>
<tr>
<td><strong>Indication(s)</strong></td>
<td>Surface anesthesia of the eye</td>
</tr>
<tr>
<td><strong>Contraindication(s)</strong></td>
<td>Hypersensitivity to Tetracaine, Procaine, Chloroprocaine or Cocaine; debilitated patients; infection at application or injection site</td>
</tr>
<tr>
<td><strong>Precaution(s)</strong></td>
<td>Shock, children younger than 16 years old, cardiac disease</td>
</tr>
<tr>
<td><strong>Pregnancy Class</strong></td>
<td>“C”</td>
</tr>
</tbody>
</table>
| **Pharmacokinetics** | • **Onset** 1 minute  
  • **Duration** 15 – 30 minutes |
| **Routes of Admin** | Topical |
| **Technique for Admin** | • Do Not use solution if it contains crystals or if it is cloudy or discolored  
  • Protection of the eye from rubbing during anesthesia is very important. The surface of the eye is insensitive and can be scratched without a patient feeling it.  
  • Discard unused portion |
| **PEARLS** | N/A |
| **Y-Site Incompatibilities** | N/A |
| **Interactions** | N/A |
| **ADDITIONAL INFO** | **TETRACAINE HYDROCHLORIDE OPHTHALMIC SOLUTION** |
EMS COGNITIVE EVALUATION

Administer and document the EMS Cognitive Evaluation as indicated in this protocol.

Minimum Passing Score = 23

Maximum Score = 29

<table>
<thead>
<tr>
<th>QUESTIONS OR TASKS</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. The elevator will name the three objects. Repeat the name of the three objects three times. Ask the patient to repeat the name of the objects after 3 seconds.</td>
<td>3</td>
</tr>
<tr>
<td>4. Begin with the number 100 and ask the patient to count backwards by five for at least five numbers (i.e. 100, 95, 90, 85, 80).</td>
<td>5</td>
</tr>
<tr>
<td>5. Ask the patient to repeat the names of the three objects from Question #3.</td>
<td>3</td>
</tr>
<tr>
<td>6. Show the patient a pen and a watch. Ask the patient to name them.</td>
<td>2</td>
</tr>
<tr>
<td>7. Ask the patient to repeat &quot;no ifs and/or buts&quot;.</td>
<td>1</td>
</tr>
<tr>
<td>8. Ask the patient to follow a three stage command (i.e. &quot;Take this paper in your right hand, hold it and place it on the floor&quot;).</td>
<td>2</td>
</tr>
<tr>
<td>9. Ask the patient to read and do the following: &quot;RAISE YOUR RIGHT HAND&quot;.</td>
<td>1</td>
</tr>
<tr>
<td>10. Ask the patient to write and complete sentence</td>
<td>1</td>
</tr>
<tr>
<td>11. Ask the patient to copy the design above:</td>
<td>1</td>
</tr>
</tbody>
</table>

Ask the patient to copy the design above:
# CT2 HEAT EMERGENCY CLINICAL FINDINGS

<table>
<thead>
<tr>
<th>Heat Emergency Clinical Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem</strong></td>
</tr>
<tr>
<td>------------</td>
</tr>
<tr>
<td>Heat Cramps</td>
</tr>
<tr>
<td>Heat Exhaustion</td>
</tr>
<tr>
<td>Heat Stroke</td>
</tr>
</tbody>
</table>
# Cold Emergency Clinical Findings

<table>
<thead>
<tr>
<th>Severity</th>
<th>Temperature</th>
<th>Clinical Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mild</td>
<td>&gt; 93 Degrees F</td>
<td>Shivering, impaired judgement, tachycardia and hypertension may be present</td>
</tr>
<tr>
<td>Moderate</td>
<td>86 - 93 Degrees F</td>
<td>Consciousness clouded to stuporous, shivering stops, blood pressure becomes difficult to obtain</td>
</tr>
<tr>
<td>Severe</td>
<td>&lt;86 Degrees F</td>
<td>Bradycardia, hypotension and slow respirations, arrhythmias may develop, consciousness is lost</td>
</tr>
</tbody>
</table>
CT4 BURNS - RULE OF 9'S

Adult

Infant Pediatric

Pediatric
Symptoms/Signs of severe asthma exacerbations:

- Breathlessness while at rest or stops infants from feeding
- Cannot lie down
- Unable to complete sentences or phrases in between breaths
- Agitated or irritable
- Respiratory rate >30 in children or >60 in infants
- Use of accessory muscles and suprasternal retractions
- Loud inspiratory and expiratory wheezes
- Tachycardia
CT6 CARDIAC ARREST PIT CREW MODEL

Position 1 - Compress/Defib
EMT or Paramedic
- Starts 100 compressions
- Alternates chest compressions, uninterrupted, with opposite side
- Verbally announcing count so all rescuers are prepared for switch.
- During ventilations, turn on ECG to therapy mode and apply pads and QCPR (if Philips monitor) or AED if BLS.
- Delivers shock if indicated after the first 200 compressions (2 min) and continues to analyze after each CPR cycle (<10 sec interruption)

Position 2 - Airway/Ventilation
Paramedic
- Opens /Cears Airway. During compressions, ready QCPR, therapy pads, and insertion of King Airway
- Applies ETCO2

Position 3 - Compress/Defib
EMT or Paramedic
- Turn on ECG to therapy mode and apply pads and QCPR (if Philips monitor at the first 100 compressions) or AED if BLS.
- Alternates chest compressions, uninterrupted, with opposite side
- Verbally announcing count so all rescuers are prepared for switch
- Delivers shock if indicated after the first 200 compressions (2 min) and continues to analyze after each CPR cycle (<10 sec interruption)

Position 4 - Vascular Access/Meds
Paramedic
- Initiates circulatory access with EZIO - preference of humeral head insertion. If IO access not available, move to IV.
- Administer Medications
- ALS Procedures

Position 5 - Document
EMT or Paramedic
- Specifically applicable for supervisor/Lieutenant
- Gathers PT information
- Treatment Documentation
- Updates Family
- Prepares for transport
- Fills in where needed

Drugbox
ePCR
# CT7 EPINEPHRINE DRIP CHART

**EPINEPHRINE INFUSION 4 mcg/mL**

Mix 1 mg of Epinephrine in a 250 mL bag of D10W

(1 mL of 1:1000 OR 10 mL of 1:10000)

<table>
<thead>
<tr>
<th>mcg/min</th>
<th>60 gtt IV Set - gtt/min</th>
<th>20 gtt IV Set - gtt/min</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15 gtt/min</td>
<td>5 gtt/min</td>
</tr>
<tr>
<td>2</td>
<td>30 gtt/min</td>
<td>10 gtt/min</td>
</tr>
<tr>
<td>3</td>
<td>45 gtt/min</td>
<td>15 gtt/min</td>
</tr>
<tr>
<td>4</td>
<td>60 gtt/min</td>
<td>20 gtt/min</td>
</tr>
<tr>
<td>5</td>
<td>75 gtt/min</td>
<td>25 gtt/min</td>
</tr>
<tr>
<td>6</td>
<td>90 gtt/min</td>
<td>30 gtt/min</td>
</tr>
<tr>
<td>7</td>
<td>105 gtt/min</td>
<td>35 gtt/min</td>
</tr>
<tr>
<td>8</td>
<td>120 gtt/min</td>
<td>40 gtt/min</td>
</tr>
<tr>
<td>9</td>
<td>135 gtt/min</td>
<td>45 gtt/min</td>
</tr>
<tr>
<td>10</td>
<td>150 gtt/min</td>
<td>50 gtt/min</td>
</tr>
</tbody>
</table>
One of the biggest misconceptions about central lines is: if the catheter end is blue “it’s venous” and if the end is red “it’s arterial”. This is not true and stressed in the above diagram. The starting point for all central lines may differ, but they end up (for the most part) in the same place.
**Triple Lumen Central Line**

This one is placed in the internal jugular but longer version may be found in the subclavian vein.

The distal end lives in the SVC (superior vena cava) like all central lines!

**Dialysis Tunnel Catheter**

Inserted into the internal jugular and tunneled under the skin (in the chest) for long term use in dialysis. You may find the same catheter (not tunneled) for temporary use but for us all will be the same.

The distal end lives in the SVC (superior vena cava) like all central lines!
**PICC Line (peripherally inserted central catheter)**

Placed in the upper arm and used for in home antibiotics etc.

The distal end lives in the SVC (superior vena cava) like all central lines!

**Port**

Port placement is usually in the anterior upper chest but may be in the arm.

The distal end lives in the SVC (superior vena cava) like all central lines!

NO EMS USE
## King Airway

<table>
<thead>
<tr>
<th>Tube Size</th>
<th>Size 3</th>
<th>Size 4</th>
<th>Size 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient</td>
<td>4 – 5 ft.</td>
<td>5 – 6 ft.</td>
<td>6 – 7 ft.</td>
</tr>
<tr>
<td>Cuff Volume</td>
<td>40 – 55 ml</td>
<td>50 – 70 ml</td>
<td>60 – 80 ml</td>
</tr>
</tbody>
</table>
**Category A**

Adequate and well-controlled studies have failed to demonstrate a risk to the fetus in the first trimester of pregnancy (and there is no evidence of risk in later trimesters).

**Category B**

Animal reproduction studies have failed to demonstrate a risk to the fetus and there are no adequate and well-controlled studies in pregnant women.

**Category C**

Animal reproduction studies have shown an adverse effect on the fetus and there are no adequate and well-controlled studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

**Category D**

There is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience or studies in humans, but potential benefits may warrant use of the drug in pregnant women despite potential risks.

**Category X**

Studies in animals or humans have demonstrated fetal abnormalities and/or there is positive evidence of human fetal risk based on adverse reaction data from investigational or marketing experience, and the risks involved in use of the drug in pregnant women clearly outweigh potential benefits.
Cyanokit Clinical Tool

Common Signs and Symptoms of Cyanide Poisoning:

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Signs</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Headache</td>
<td>· Altered Mental Status</td>
<td>· Bradypnea / Apnea (late)</td>
</tr>
<tr>
<td>· Confusion</td>
<td>· (e.g. confusion, disorientation)</td>
<td>· Hypertension (early) Hypotension (late)</td>
</tr>
<tr>
<td>· Dyspnea</td>
<td>· Seizures or Coma</td>
<td>· Cardiovascular collapse</td>
</tr>
<tr>
<td>· Chest tightness</td>
<td>· Mydriasis</td>
<td>· Vomiting</td>
</tr>
<tr>
<td>· Nausea</td>
<td>· Tachypnea / Hyperpnea (early)</td>
<td>· Plasma lactate concentration ≥ 8 mmol/L</td>
</tr>
</tbody>
</table>

Smoke Inhalation
Prior to administration of Cyanokit®, smoke inhalation victims should present with:
· Exposure to fire smoke in an enclosed area
· Soot present around mouth, nose and/or oropharynx
· Altered mental status

Physical and Chemical Incompatibilities
There are a number of drugs and blood products that are incompatible with Cyanokit®, thus Cyanokit® requires a separate intravenous line for administration.

Compatible Diluents
0.9% Sodium Chloride for Injection is the recommended diluent. Lactated Ringers Solution and 5% Dextrose Injection have also been found to be compatible with hydroxocobalamin.

Cyanokit® (hydroxocobalamin for injection)
5 g per vial

For Intravenous Use
To be reconstituted with 200 mL of 0.9% Sodium Chloride Injection
Diluent Not Included

Complete Starting Dose: 5 grams
1. Reconstitute
   Place the vial in an upright position.
   Add 200 mL of 0.9% Sodium Chloride Injection to the vial using the transfer spike. Fill to the line.
2. Mix
   The vial should be repeatedly inverted or rocked, not shaken, for at least 60 seconds prior to infusion.
3. Infuse Vial
   Use vented intravenous tubing, hang and infuse over 15 minutes.

One 5 g vial is a complete starting dose

See Package Insert for alternate diluents, incompatibilities with other drugs and full prescribing information.
For more information visit www.cyanokit.com or call 1-800-776-3637
See reverse for additional information
CT12 ADULT (age equal to or greater than 16) TRAUMA SCORECARD

**METHODOLOGY**

<table>
<thead>
<tr>
<th>Any ONE Criteria = Red Trauma Alert</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Active airway assistance beyond the administration of oxygen</td>
<td>Amputation proximal to the wrist or ankle</td>
</tr>
<tr>
<td>Lack of radial pulse with sustained heart greater than 120</td>
<td>Any penetrating injury to the head, neck or torso (excluding superficial wounds where the depth of the wound can be determined)</td>
</tr>
<tr>
<td>Systolic BP less than 90 mmHg</td>
<td>Signs &amp; symptoms two or more long bone fracture sites (humerus, radius/ulna, femur, tibia/fibula)</td>
</tr>
<tr>
<td>GCS score Best Motor Response equal to or less than 4</td>
<td>GCS score equal to or less than 12 (excluding patients whose normal GCS Score is equal to or less than 12 as established by patient’s medical history or preexisting medical condition when known)</td>
</tr>
<tr>
<td>Exhibits the presence of paralysis</td>
<td>Signs &amp; symptoms/suspicion of skull fracture, flail chest and/or pelvic fracture**</td>
</tr>
<tr>
<td>Suspected spinal cord injury</td>
<td>Major blunt trauma to head, neck, torso or pelvis**</td>
</tr>
<tr>
<td>Loss of sensation</td>
<td>Any ejection (complete or partial) from a motor vehicle (including: moped, motorcycle, all terrain vehicle, watercraft)**</td>
</tr>
<tr>
<td>2nd or 3rd degree burns equal to or greater than 15% TBSA</td>
<td>Death of another passenger from trauma**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Any TWO Criteria = Blue Trauma Alert</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory rate equal to or greater than 30</td>
<td>Gunshot wound to an extremity of the body</td>
</tr>
<tr>
<td>Sustained heart rate equal to or greater than 120</td>
<td>Signs &amp; symptoms of a single long bone fracture from a MVC</td>
</tr>
<tr>
<td>GCS Best Motor Response equals 5</td>
<td>Signs &amp; symptoms of a single long bone fracture from fall equal to or greater than 10 feet</td>
</tr>
<tr>
<td>Soft tissue loss from major degloving injury</td>
<td>Age equal to or greater than 55 years old</td>
</tr>
<tr>
<td>Major flap avulsion greater than 5 inches</td>
<td>Patient impacted steering wheel causing steering wheel deformity</td>
</tr>
</tbody>
</table>

**Paramedic Intuition = “Trauma Alert” (must document basis for declaration on PCR)**

**Trauma Center Transport Local Criteria = “NON-Trauma Alert”**

- Extended extrication time
- Rapid deceleration with heavy damage
- Passenger space invasion greater than 1 foot

** = Local Medical Director Trauma Alert Criteria
# CT13 Pediatric Trauma Scorecard

## PEDIATRIC (age less than 16) TRAUMA SCORECARD

### METHODOLOGY

**Any ONE Criteria = Red Trauma Alert**

- **In order to maintain optimal ventilation,** the patient is intubated or breathing is maintained through such measures as manual jaw thrust, continuous suctioning or use of other adjuncts to assist ventilatory efforts: Multiple fracture sites or dislocations (except for isolated wrist or ankle fractures or dislocations)

- **Exhibits altered mental status including drowsiness, lethargy, inability to follow commands, unresponsiveness to voice, totally unresponsive or coma:** Major soft tissue disruption including major degloving injury or major flap avulsions

- **Presence of paralysis:** 2nd or 3rd degree burns equal to or greater than 10% TBSA

- **Loss of sensation:** Amputation at or above the Wrist or Ankle

- **Suspected spinal cord injury:** Any penetrating injury to the head, neck or torso (excluding superficial wounds where the depth of the wound can be determined)

- **Feint or non-palpable carotid or femoral pulse:** Major blunt trauma to head, neck, torso or pelvis**

- **Systolic BP less than 50 mmHg:** Signs & symptoms/suspicion of skull fracture, flail chest and/or pelvic fracture**

- **Evidence of open long bone (humerus, radius/ulna, femur, tibia/fibula) fracture:** Any ejection (complete or partial) from a motor vehicle (including moped, motorcycle, all terrain vehicle, watercraft)**

- **Death of another passenger from trauma**

**Any TWO Criteria = Blue Trauma Alert**

- **Symptoms of amnesia exhibited:** Weight equal to or less than 11 kilograms or the body length is equivalent to this weight on the Handtevy Tape (the equivalent of 33 inches in measurement or less)

- **Loss of consciousness:** Signs & symptoms of a single closed long bone fracture. Excludes isolated wrist or ankle fractures

- **Palpable carotid or femoral pulse but the radial or pedal pulses are not palpable:** Signs & symptoms single long bone fracture from a fall equal to or greater than 10 feet

- **Systolic BP less than 90 mmHg**

### Paramedic Intuition = “Trauma Alert” (must document basis for declaration on PCR)

<table>
<thead>
<tr>
<th>Trauma Center Transport Local Criteria = “NON-Trauma Alert”</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Extended extrication time</strong></td>
</tr>
<tr>
<td><strong>Rapid deceleration with heavy damage</strong></td>
</tr>
<tr>
<td><strong>Passenger space invasion greater than 1 foot</strong></td>
</tr>
</tbody>
</table>

** = Local Medical Director Trauma Alert Criteria
## CT14 APGAR SCORE

### APGAR SCORE

<table>
<thead>
<tr>
<th></th>
<th>0 Points</th>
<th>1 Point</th>
<th>2 Points</th>
<th>Points Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity (muscle tone)</strong></td>
<td>Absent</td>
<td>Arms and Legs Flexed</td>
<td>Active Movement</td>
<td></td>
</tr>
<tr>
<td><strong>Grimace (reflex irritability)</strong></td>
<td>Flaccid</td>
<td>Some Flexion of Extremities</td>
<td>Active Motion (sneeze, cough, pull away)</td>
<td></td>
</tr>
<tr>
<td><strong>Appearance (skin color)</strong></td>
<td>Blue, Pale</td>
<td>Body Pink, Extremities Blue</td>
<td>Completely Pink</td>
<td></td>
</tr>
<tr>
<td><strong>Respiration</strong></td>
<td>Absent</td>
<td>Slow, Irregular</td>
<td>Vigorous Cry</td>
<td></td>
</tr>
</tbody>
</table>

**Severely Depressed 0 - 3**

**Moderately Depressed 4 - 6**

**Excellent Condition 7 - 10**