It is the responsibility of the local medical director and the lead EMS agency to provide medical control and assure accountability for the pre-hospital care delivered in the EMS system. In McCracken County, all fire departments are important team members of the EMS system. To facilitate planning, implementation and evaluation of the local EMS system, Mercy Regional EMS has developed a set of medical protocols for certified EMT-first responders and EMT-Basics who provide pre-hospital medical care with McCracken County fire departments that respond as affiliated agencies with Mercy Regional EMS.

Each agency will be provided with both a paper and electronic copy of the ***Mercy Regional EMS First Responder Protocols***. Included in these protocols is a single page medical report that the first responders will be asked to complete and return to Mercy Regional EMS for each medical call in which some form of treatment is rendered. In addition to this report, if an AED is utilized, the AED will be downloaded at Mercy Regional EMS Station I.

MREMS will provide medical direction for the McCracken County Fire Departments. This will include review of calls and appropriate feedback to the fire department. This feedback will be provided through a quarterly meeting that will include call review and EMS training.

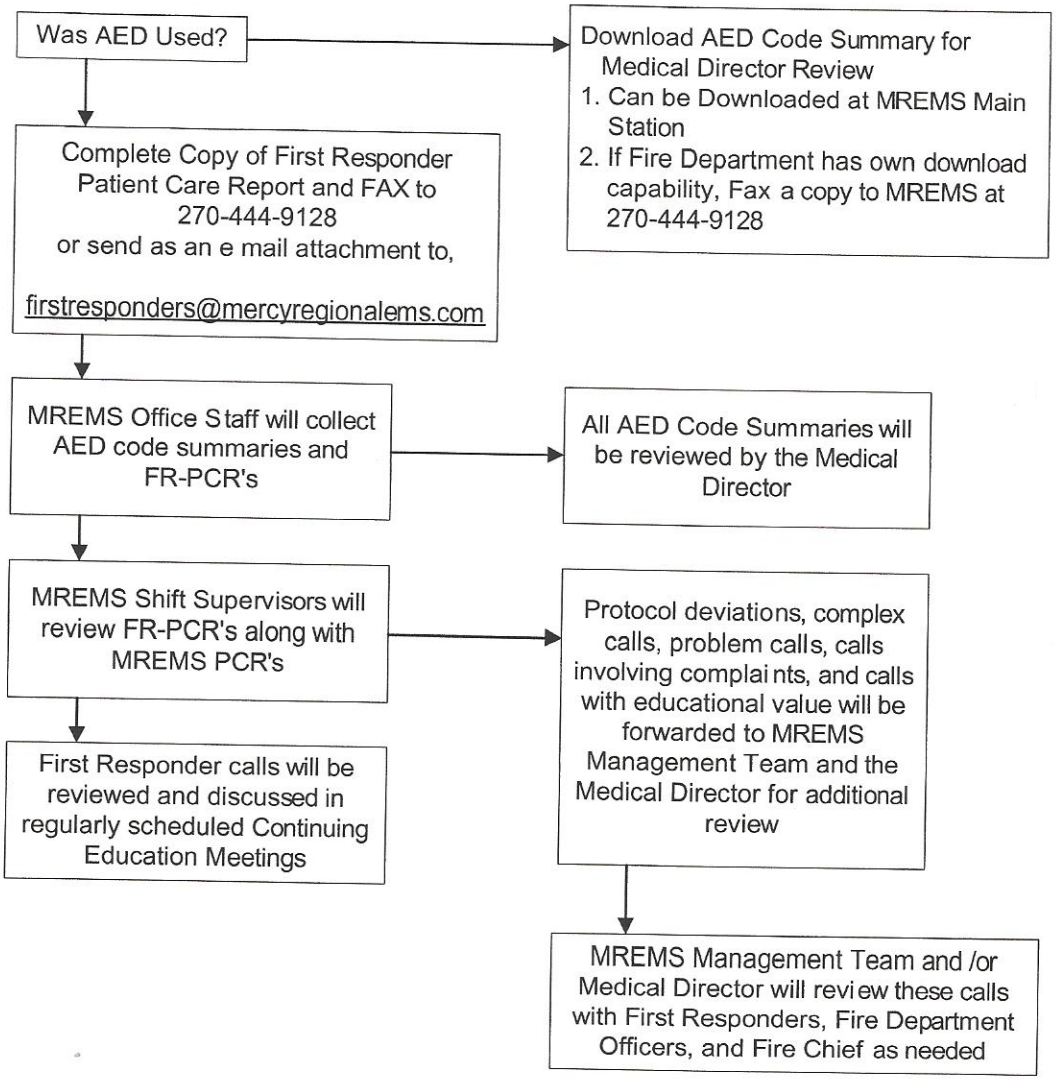
Irvin Smith, MD — Date: 11/15/10
Medical Director
Mercy Regional EMS

Jamey Locke, BA, EMT-P — Date: 11-15-10
Executive Director
Mercy Regional EMS

Chief — Fire Department — Date

# Clinical Operating Guidelines
# First Responder

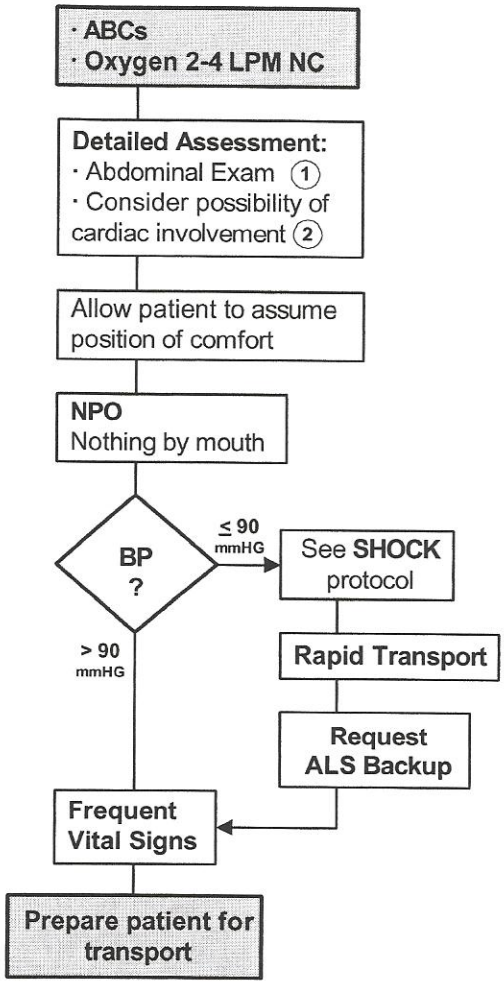
**Mercy Regional EMS, LLC**
**Affiliated First Responder Response Documentation**




Approved: 9/1/10
James C Locke / Executive Director

Approved: 9/1/10
Irvin Smith /Medical Director

# Abdominal Pain:
# Not related to pregnancy or trauma




**Document:**
- **Abdominal Signs/Symptoms**
- **Absence or Presence of Chest Pain**
- **Nature of Pain**
- **Vital Signs**
- **SpO2 (if available)**
- **Treatment**
- **Response to Treatment**

1 **Abdominal Exam:** Note pain (nature, duration, intensity on 1-10 scale, radiation). Observe for palpable mass, always palpate with care. Auscultate prior to palpation. Note associated signs & symptoms; (nausea, vomiting, bowel tones, guarding, rebound tenderness, distention). **History:** previous episodes, last meal, current medications, last menstrual period, possibility of pregnancy.

2 **Be aware that ischemic cardiac pain can present as abdominal pain especially in older patients. If cardiac pain is suspected notify ALS unit.**

Approved: 10/11/10
James C Locke / Executive Director

Approved: 10/11/10
Irvin Smith /Medical Director

# AED: Automatic External Defibrillator

The patient is unresponsive, no movement, no breathing, no definite pulse
Begin CPR / Call for ALS intercept

↓

. Unwitnessed arrest: CPR X 2 min then AED
. Witnessed arrest: Apply AED ASAP
. Stop CPR only to analyze and shock
. Following shock, immediately resume CPR for 2 min
. Ventilate with BVM with oral/nasal airway at a rate of 8-10 breaths / min

→ If definite pulse is present:
Give 1 breath every 5-6 sec.
Check pulse every 2 min

↓

AED analysis and Shock X 1 at 360 joules (200 for biphasic)

↓

Immediately resume CPR X 2 min

↓

· Press Analyze
· Defibrillate up to 360 joules
. Immediately resume CPR X 2 min

↓

Continue Cycles of 2 min of CPR, AED analysis, and Shock if advised

↓

Prepare patient for transport

BLS rescuers should continue CPR for 2 min cycles and use the AED as indicated until the patient begins to move (indicates a perfusing rhythm), a definite pulse is felt, or until ALS providers take over care.

**PEDIATRICS: AED Approved for children over 1 year old**

**Pediatriac AED pads are preferred in children < 8 years of age but Adult AED pads and Adult AED may be used if th specific Pediatric equipment is not available**

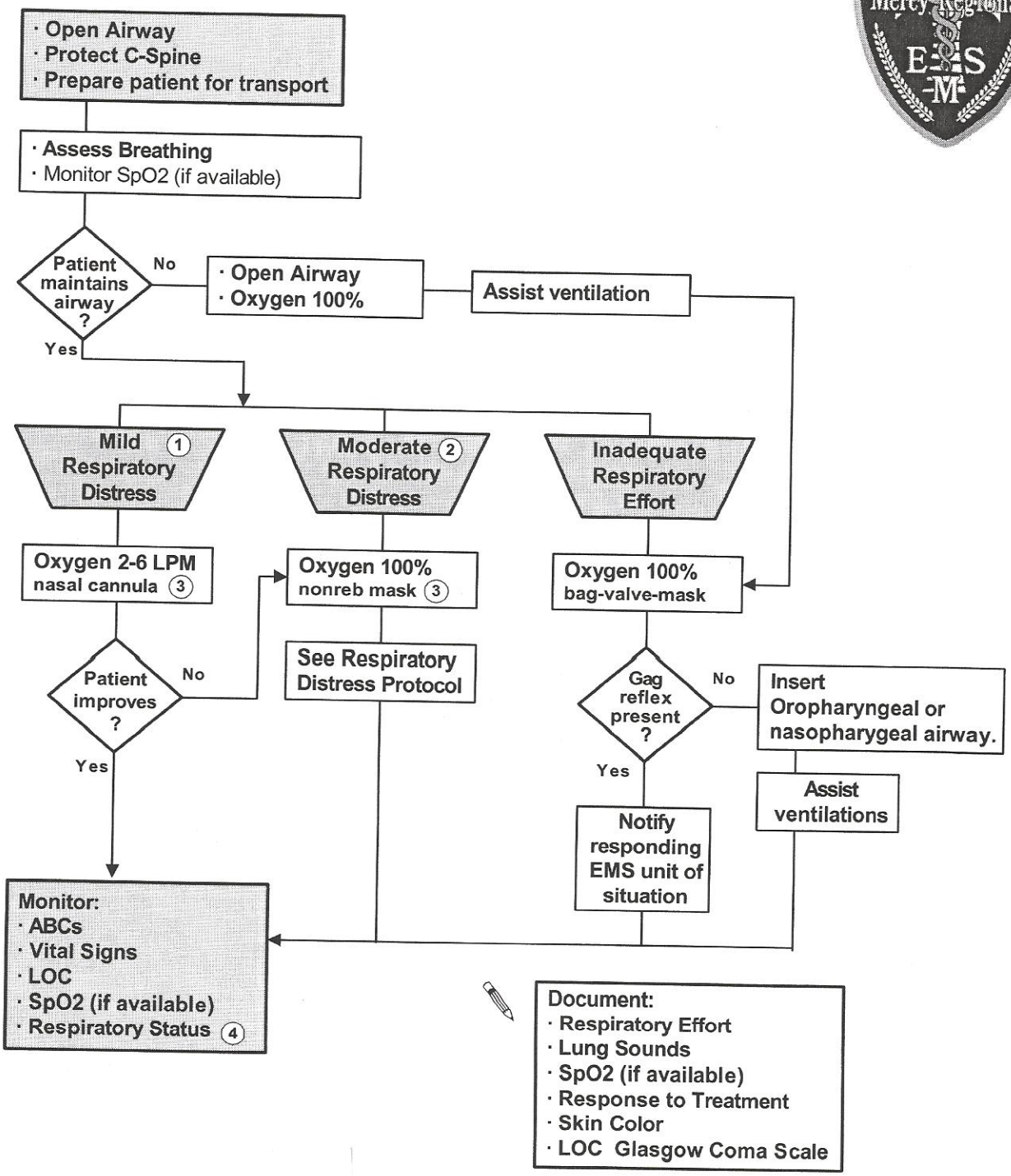
1. Avoid any CPR interruption: PUSH HARD and FAST
2. Resume CPR immediately after shock and continue for 2 minutes before repeating analysis by AED
3. CPR ratios:1 rescuer 30:2 compression/ventilation ratio, 2 rescuers 15:2 compression/ventilation ratio

**Document:**
· Airway
· Respiratory Status
· Circulation, Pulses
· Capillary Refill
· Neurological Status
· Vital Signs
· Treatment
· Response to Treatment

Approved: 1/1/10
James C Locke / Executive Director

Approved: 1/1/10
Irvin Smith /Medical Director

# Airway Management




1 **Mild Distress** - Patient complains of shortness of breath

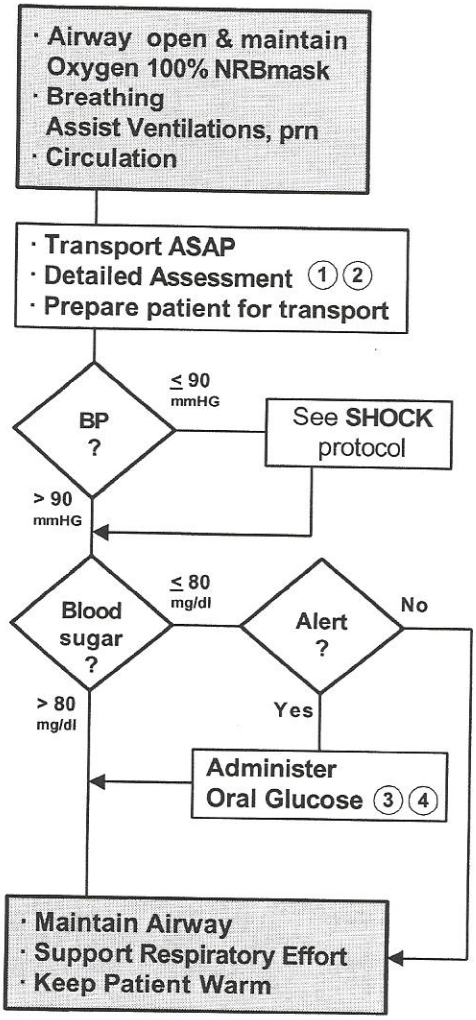
2 **Moderate Distress - Shortness of Breath, use of accessory muscles, Anxiety and SpO2 < 95%**

3 **COPD** patients often use their **Hypoxic Drive.** In these cases, expect and accept SpO2 readings <90 & >85%. Lower concentrations of oxygen may be indicated yet never deprive a patient, in respiratory distress, of Oxygen.

4 **IF RESPIRATORY EFFORT OR LEVEL OF DISTRESS CHANGES MOVE TO THE APPROPRIATEASPECT OR ARM OF THIS PROTOCOL.**

| | |
|---|---|
| Approved: 10/1/10<br>James C Locke / Executive Director | Approved: 1/1/<br>Irvin Smith /Medical Director |

# Altered Mental Status
# Coma




**Possible causes:**

| | |
|---|---|
| · Head Injury | · Cardiac Arrest |
| · Diabetes | · Seizure |
| · Overdose | · Hypertension |

**Document:**
- **Glasgow Coma Scale**
- **Clinical Response to Dextrose**
- **Blood Sugar**
- **SpO2**
- **Medical History**
- **Exam**
- **Vital Signs**

**Glasgow Coma Scale**

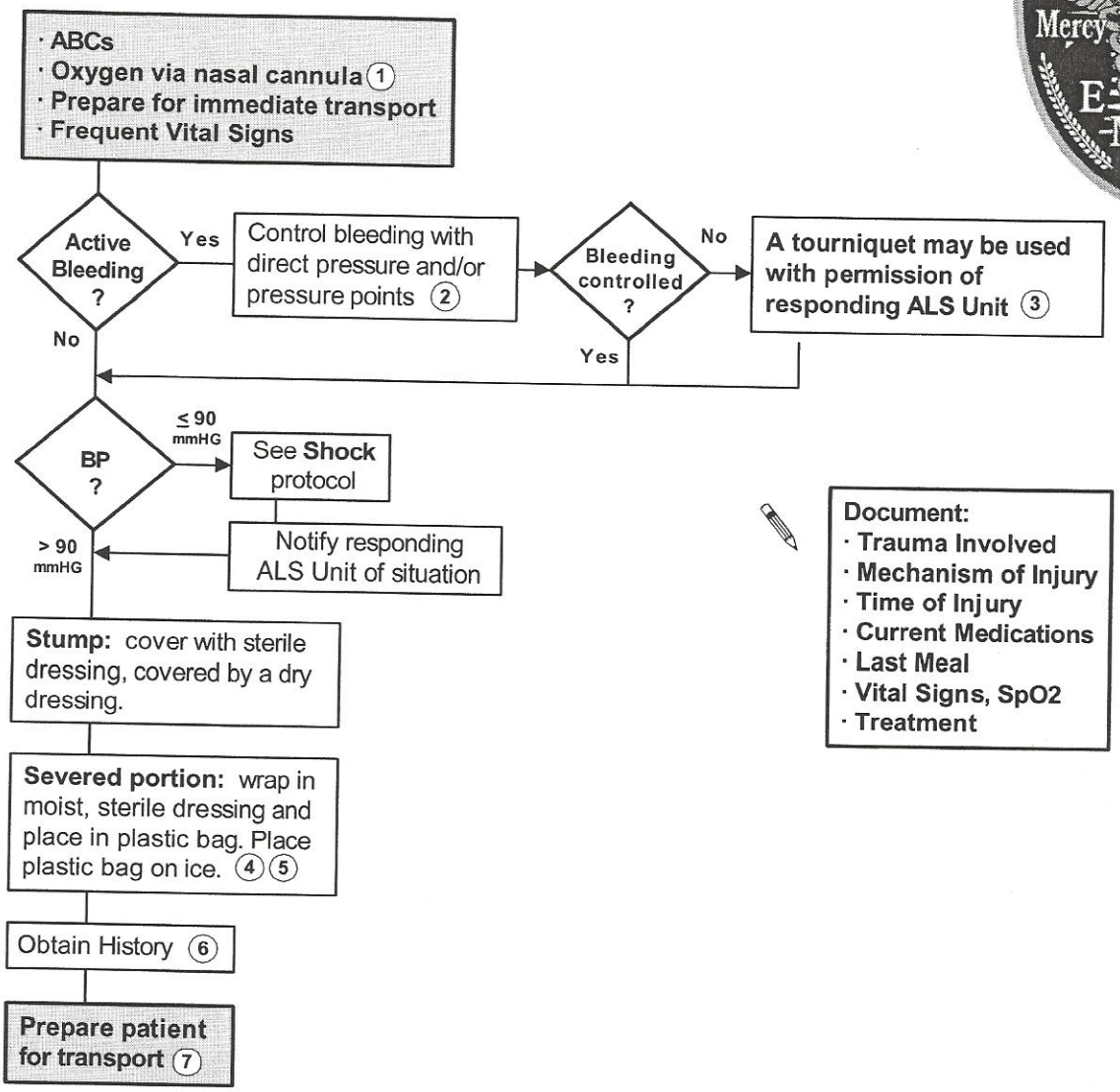
| | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

1 **Detailed Assessment:** Document Glasgow Coma Scale. Check odor on breath. Look for Medical Alert tags, needle tracks, and evidence of trauma.
2 Observe environment closely for signs of potential overdose.
3 **THE PATIENT MUST BE ALERT and have an intact gag reflex** before oral Glucose can be administered. Oral Glucose may be given as a glass of sweetened juice or Glucose, 12.5 g PO.
4 Blood glucose monitoring and oral glucose administration are restricted to EMT-B's completing the Kentucky EMT-B supplemental Curriculum and approved by the Fire Chief and MREMS.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

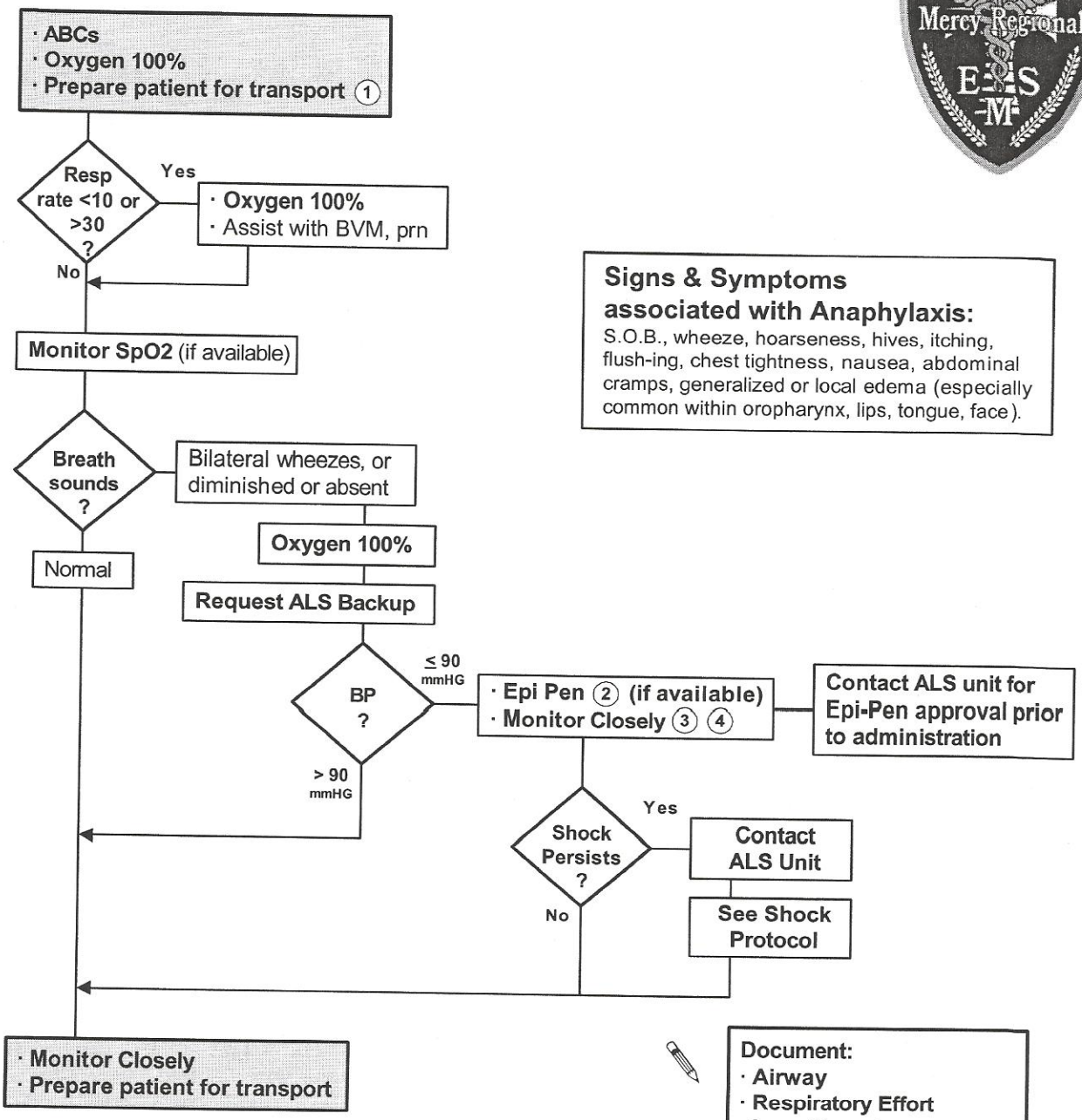
# Amputation




1 Administer higher concentrations if needed.
2 Use **pressure point** proximal to site if direct pressure does not control the bleeding.
3 Notify responding ALS unit. A **tourniquet** may be indicated.
4 Keep severed part moist. **Do not allow to soak in a solution.**
5 If transport is delayed or otherwise extensive (entrapped patient, etc.), consider air transport and/or transporting severed part before patient, to allow early examination and surgical preparation for reimplantation.
6 **History:** note time of amputation, mechanism involved, current medications, bleeding disorders. **Exam:** note anatomical location of amputation. Estimate total blood loss.
7 **Do not delay transport at any time in this protocol.**

| | |
|---|---|
| Approved: 10/1/10<br>James C Locke / Executive Director | Approved: 10/1/10<br>Irvin Smith /Medical Director |

# Anaphylaxis




**Signs & Symptoms associated with Anaphylaxis:**
S.O.B., wheeze, hoarseness, hives, itching, flush-ing, chest tightness, nausea, abdominal cramps, generalized or local edema (especially common within oropharynx, lips, tongue, face).

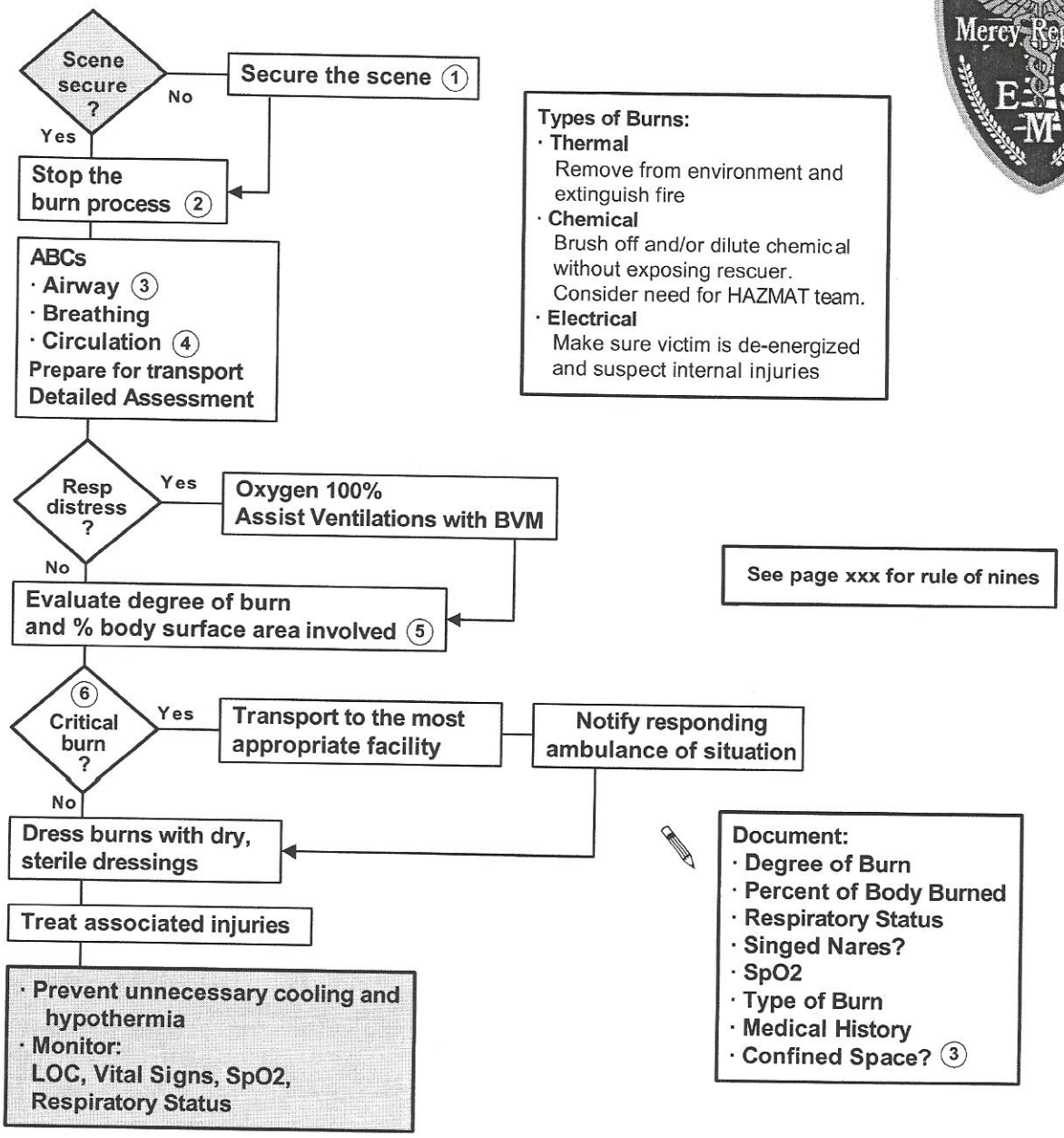
**Document:**
- Airway
- Respiratory Effort
- Lung Sounds
- Vital Signs, SpO2
- Signs & Symptoms
- Request for ALS Backup
- Skin Color
- All of the above items shall be documented pre and post Epi-Pen administration

1 **Bee sting:** gently remove stinger if still present.
2 **Epi Pen jr pediatric dose** = 0.15mg
3 **Contact Medical Control if symptoms/signs persist.**
4 Epi-Pen administration is restricted to EMT-B's completing the KY EMT-B supplemental curriculum and approved by the Fire Chief and MREMS.

Approved: 12/1/10
James C Locke / Executive Director

Approved: 12/1/10
Irvin Smith /Medical Director

# Burns




1 Make sure rescuers can safely help the victim.
2 Remove clothes, flood with water ONLY if flames or smoldering is present.
3 Consider **Carbon Monoxide** poisoning if victim was within a confined space. If p otential for CO poisoning exists administer **Oxygen** 100%.
4 If shock is present consider underlying causes. **Request ALS backup.**
5 Note: the patient's palm represents 1% of their BSA. Use this as a reference.
6 **Critical burn = · any degree 25% BSA · 3rd degree > 10% · respiratory injury · involvement of face, hands, feet, or genitalia · circumferential burns · associated injuries · electrical or deep chemical burns · underlying medical history (cardiac, diabetes) · age < 10 or > 50 years.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Chest Pain

## Suspected Ischemic Chest Pain

- **ABCs**
- **Oxygen 4 LPM NC** (1)
- **Transport ASAP** (2)

- SpO2 (if available)
- Vital Signs
- Obtain Medical History

- Position of Comfort
- Reassurance
- **Assist patient with NTG adminstration.** (3)

**Document:**
- **ABCs**
- **Medical History**
- **Signs & Symptoms**
- **Quality of Pulses**
- **SpO2, VS**
- **Glasgow Coma Scale**
- **Color, Diaphoresis**
- **Response to Treatment**

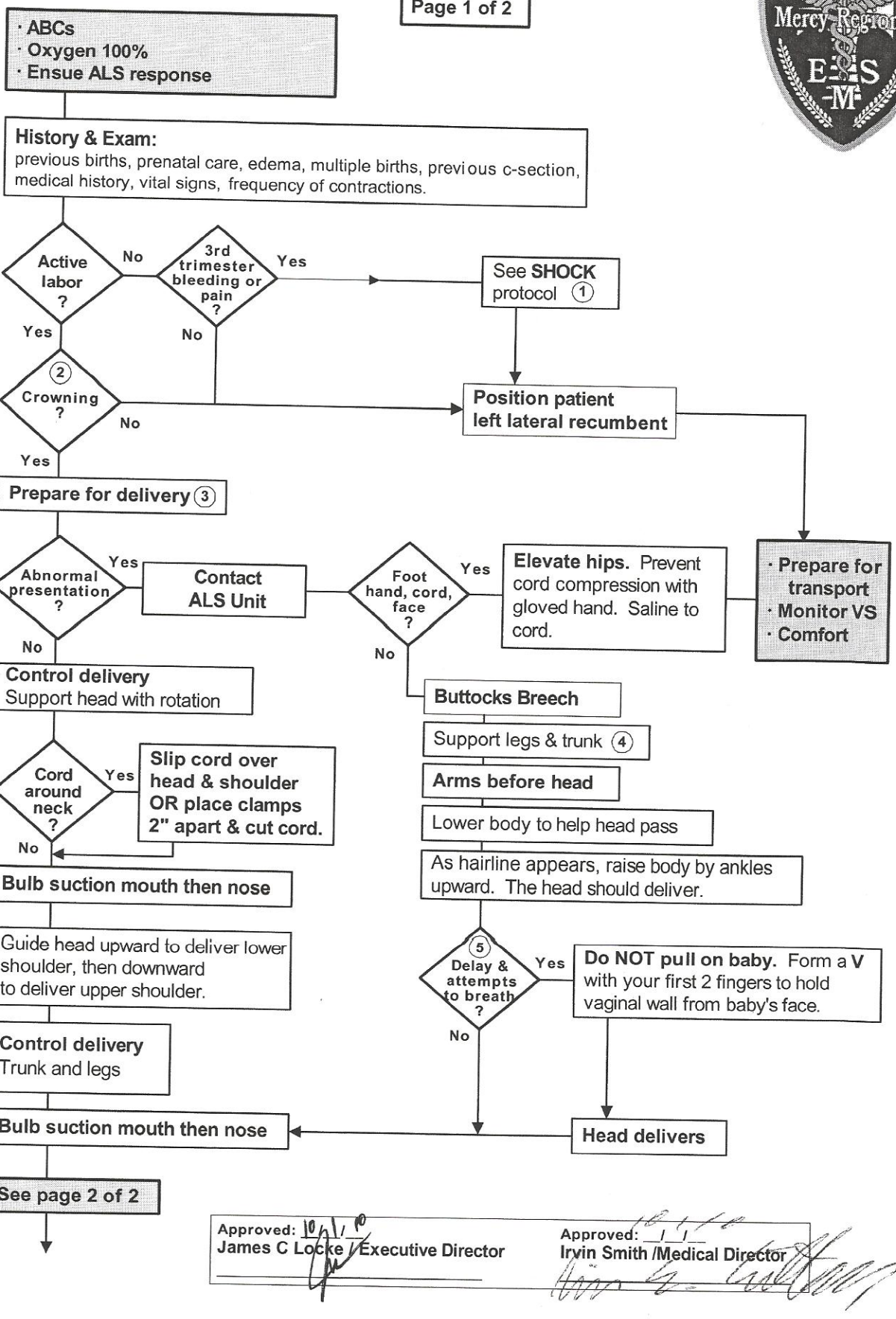
1 **Oxygen:** adjust flow rate & route of administration as needed. Consider **hypoxic drive** in COPD and degree of respiratory effort. Non-COPD patients should be able to maintain SpO2 of 97% or higher. Increase oxygen concentration if SaO2 is low.
2 **If the patient becomes unresponsive, apply Automatic External Defibrillator.**
3 NTG administration is restricted to EMT-B's completing the KY EMT'B supplemental curriculum and approved by the Fire Chief and MREMS.

**Approved:** 10/1/10
**James C Locke / Executive Director**

**Approved:** 10/1/10
**Irvin Smith /Medical Director**

# Childbirth






Approved: 10/1/10
James C Locke / Executive Director

Approved: __/__/__
Irvin Smith /Medical Director

## Childbirth continued from page two



Clamp cord 8" from navel with 2 ties, 2 " apart and cut

Assess baby
See Neonatal Protocol (6)

Prepare patient for transport (7)

Massage fundus and place baby to breast to promote placental delivery (8) (9)

Bleeding > 250cc ?

Yes → Contact ALS Unit

Massage fundus (8) (9)

See SHOCK protocol

Severe bleeding following placental delivery: SEE SHOCK PROTOCOL (10)

No → Prepare for transport
Monitor Vital Signs
Keep Baby Warm

**Document:**
- Time of Birth
- APGAR at 1 Min and 5 Min
- Time of Placental Delivery
- Estimated Fluid and Blood Loss
- Complications if any
- Care and Supportive Measures
- Oxygen
- Communication with ALS Unit
- Clinical Assessment and Vital Signs

**Apgar Score**

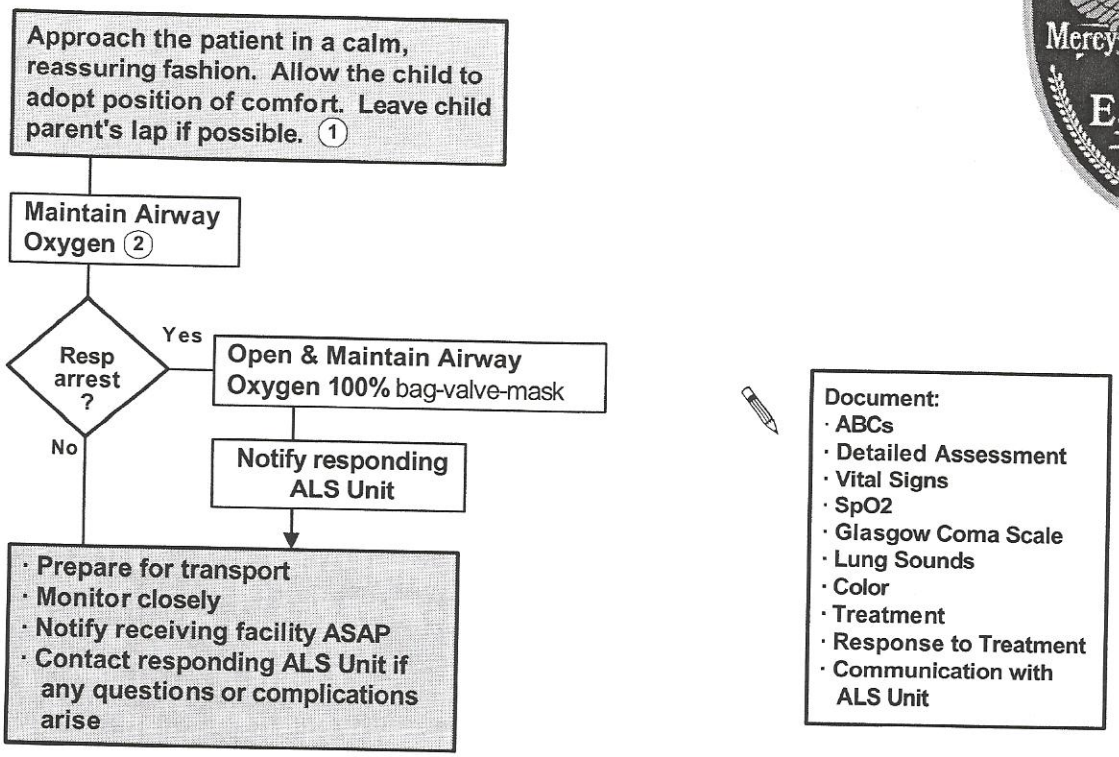
| sign | 0 | 1 | 2 |
|---|---|---|---|
| Heart rate | absent | >100 | <100 |
| Respiratory effort | absent | slow | good, crying |
| Muscle tone | limp | some flexion | active |
| Reflex irritability | no response | grimace | cough/sneeze |
| Color | blue, pale | body pink | completely pink |

1 **Do NOT preform a digital exam.** Possible placental previa or abruptio placenta.
2 **Crowning may first appear during a contraction. Look for crowning between and during contractions. NO digital exams.** Do NOT allow anyone to perform a digital exam.
3 **Deliver baby on the scene ONLY if delivery is eminent.**
4 Do NOT pull on baby.
5 If the babies head does not deliver and the baby begins to breath with its face pressed against the vaginal wall, place a gloved hand in the vagina with the palm toward the babies face. Form a "V" with the index and middle finger on either side of the infant's nose and push the vaginal wall away from the infant's face to allow unrestricted respiration.
6 **Note exact time of birth.**
7 **Keep baby warm.** Dry surface, cover head and protect from falls.
8 Massage fundus: gentle but firm, intermittent massage.
9 Do NOT pull on cord.
10 **SEE SHOCK PROTOCOL**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 9/1/10
Irvin Smith /Medical Director

# Croup & Epiglotitis




Document:
- ABCs
- Detailed Assessment
- Vital Signs
- SpO2
- Glasgow Coma Scale
- Lung Sounds
- Color
- Treatment
- Response to Treatment
- Communication with ALS Unit

**Common Characteristics**

Epiglotitis:
- Age usually > 2 years
- Onset rapid
- Signs & Symptoms

Fever, often look sick. Air hunger, nasal flaring, restlessness, drooling, retractions. Wants to sit upright.

Croup:
- Age 6 months - 3 years
- Onset gradual
- Signs & Symptoms

Often preceded by an upper respiratory infection. Worse at night. May or may not have a fever. Condition varies from mild to severe.

1 **Avoid startling the patient. Anxiety may exacerbate the child's condition.**

2 **Consider blow-by Oxygen.** Pediatric patients rarely tolerate a mask and may become more apprehensive or excited with its use. The care provider, (or parent), can hold the mask near the patient's face so that the oxygen blows by the face and can be inspired.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# CVA Stroke

**Cerebral Vascular Accident**

- ABCs
- Oxygen 100%
- Prepare patient for transport (1)

**Glasgow Coma Scale ?**

**Able to maintain airway ?**

No → **Open Airway** Nasal trumpet and / or OPA if tolerated

Yes

**Adequate respiratory effort ?**

No → **Assist Ventilations** with Bag-Valve-Mask

Yes

**Monitor SaO2 (if avaialble) Frequent Vital Signs**

**Check Blood Glucose; If less than 80 see HYPOGLYCEMIA guideline**

**Raise head 45 degrees if possible**

**Prepare to suction airway as needed**

**Contact responding ALS unit if you have any questions or problems develop**

**Document:**

- ABCs
- Detailed Assessment
- Vital Signs
- SpO2 (if available)
- Glasgow Coma Scale
- Motor Function
- Neurologic Deficits
- Lung Sounds
- Skin Color
- Treatment
- Response to Treatment
- Communication with responding ambulance

**Glasgow Coma Scale**

| | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

**The Cincinnati Prehospital Stroke Scale**

**Facial Droop** (have patient show teeth or smile)
- Normal--both sides of face move equally
- Abnormal--one side does not move as well as the other

**Arm Drift** (patient closes eyes and holds arms out):
- Normal--both arms move the same OR both arms do not move at all
- Abnormal--one arm does not move OR one arm drifts down

**Speech** (have the patient say "You can't teach old dogs new tricks"):
- Normal--patient uses correct words with no slurring
- Abnormal--patient slurs words, uses inappropriate words, or is unable to speak

**1 Time in the field must be minimized.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Death in the Field


**Withholding life support measures**

**Life support may be withheld if any of the following exists:**
- Patient has a valid KY Pre-hospital DNR
- Decapitation
- Rigormortis in a warm environment
- Dependent lividity: venous pooling in dependent body parts

**Contact responding ALS Unit MANDATORY**

**All hypothermic patients, victims of electrocution, lightning strike, drowning, and pediatric patients should receive resuscitation measures and prepare patient for transportion**

**DO NOT COVER THE BODY WITH A SHEET**
**Contact the appropriate authorities.**

**Secure the scene:**
Do not remove personal property from the body. Do not disturb the scene or leave the body unattended. May partition off an area to protect from bystanders/onlookers.

**Assess need for pastoral services for family/friends if present. Contact appropriate authorities as needed.**

**Complete your scene report. Relinquish scene control to the responding ALS unit.**

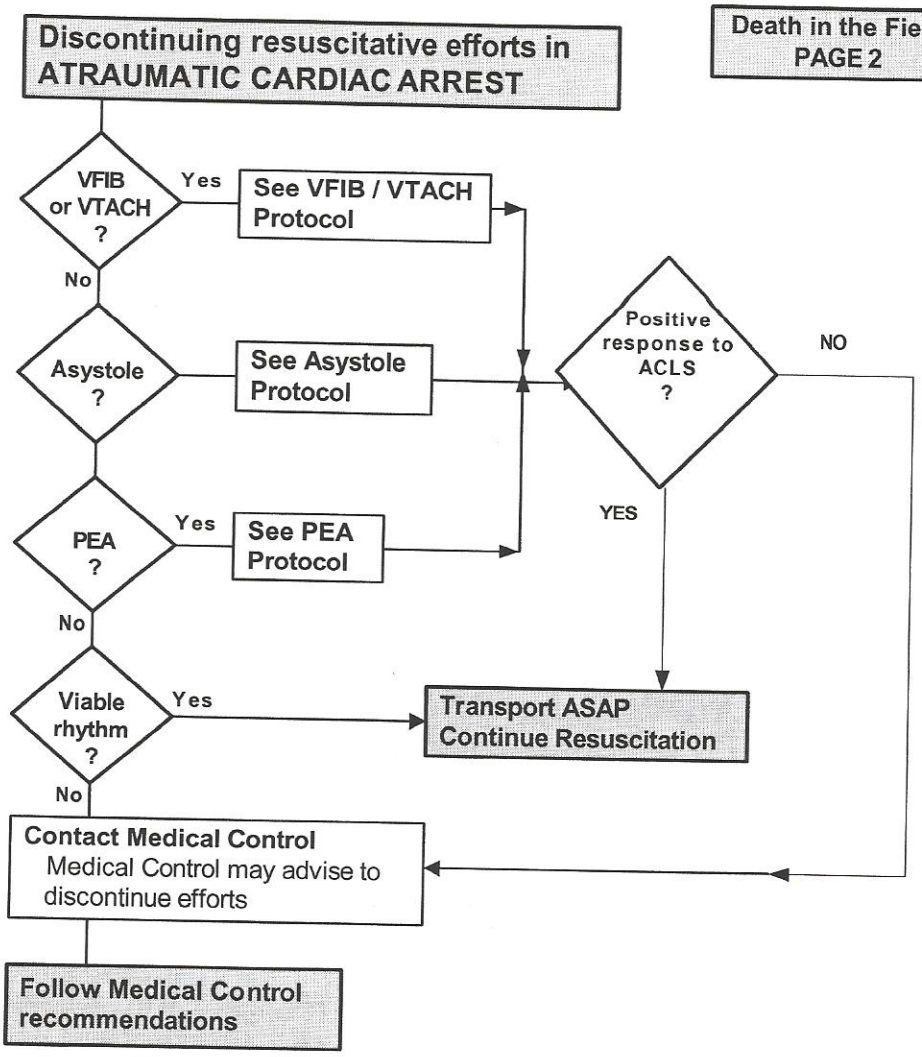
**Document:**
- **All Patient Care/Assessment**
- **Communication with Medical Control**
- **Time Medical Examiner Notified**
- **DNR Status if Applicable**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Death in the Field



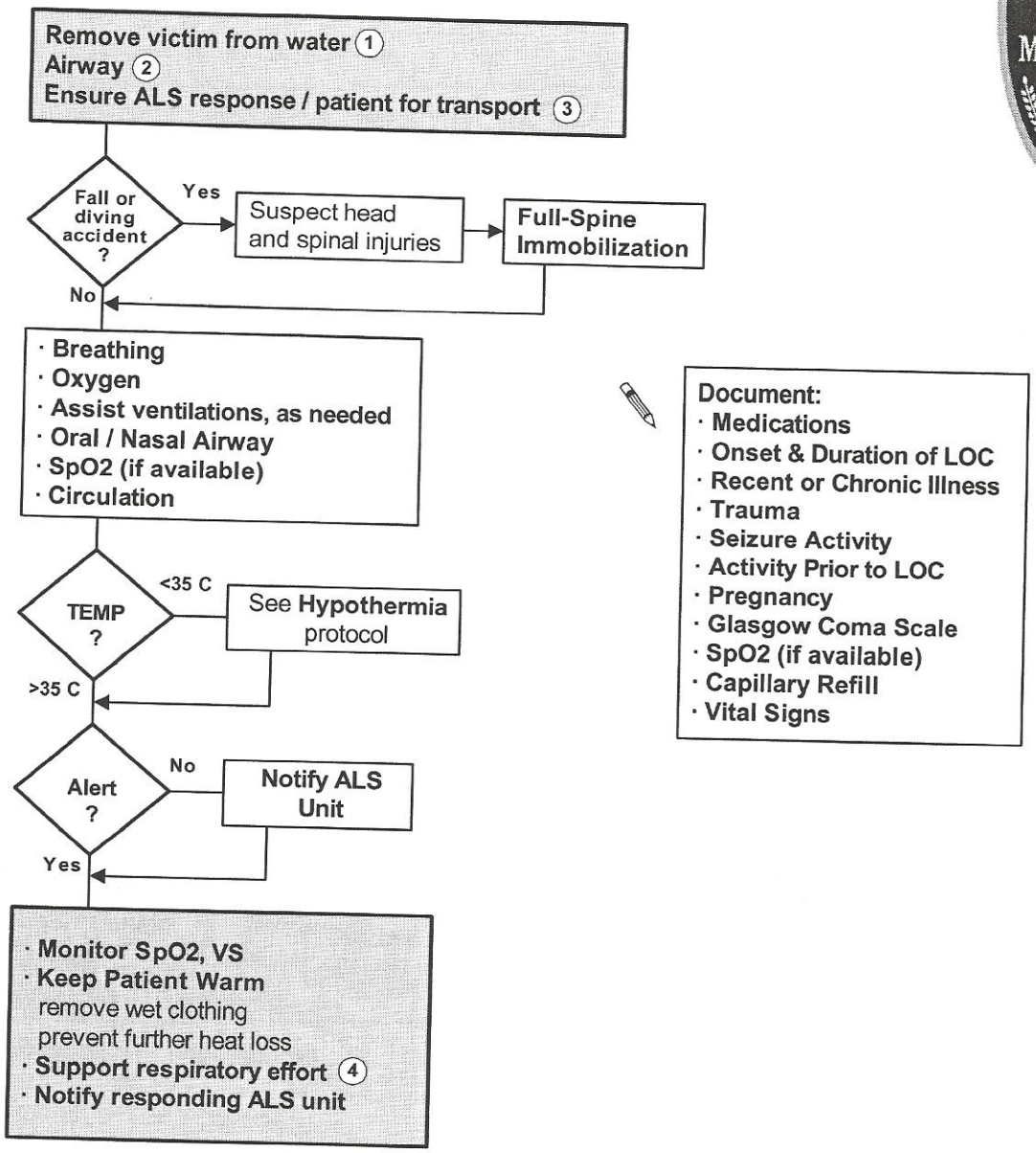



**NOTE: MEDICAL CONTROL MUST BE CONTACTED AND APPROVE DISCONTINUATION OF RESUSCITATION EFFORTS**

Approved: _____
James C Locke / Executive Director

Approved: 10/1/16
Irvin Smith /Medical Director

# Near Drowning




1 To be performed by a trained rescuer with appropriate equipment.
2 Ventilation should be initiated while the patient is being rescued.
3 All near-drowning victims should be examined by a physician.
4 Observe for Pulmonary Edema.

Approved: 04/10
James C Locke / Executive Director

Approved: 10/1/12
Irvin Smith /Medical Director

# Glasgow Coma Scale

**Adult & Children**

| Glasgow Coma Scale | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

**Infant & Toddler**

| Glasgow Coma Scale | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Smiles, Interacts | 5 |
| | Consolable | 4 |
| | Cries to Pain | 3 |
| | Moans to Pain | 2 |
| | None | 1 |
| **Best Motor Response** | Normal Movement | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

**Glasgow Coma Scale**

**Assess the patient in each category (eye opening, best verbal response, best motor response) and add the scores from each category. *Example:* if the patient's BEST verbal response is a string of muffled, incomprehensible words give them a 2 for that category. The patient's Glasgow Coma Scale will be the total of all three categories. A Glasgow Coma Scale of 7 indicates coma.**

**Reassess the patient's score frequently, record each observation and the time it was made.**

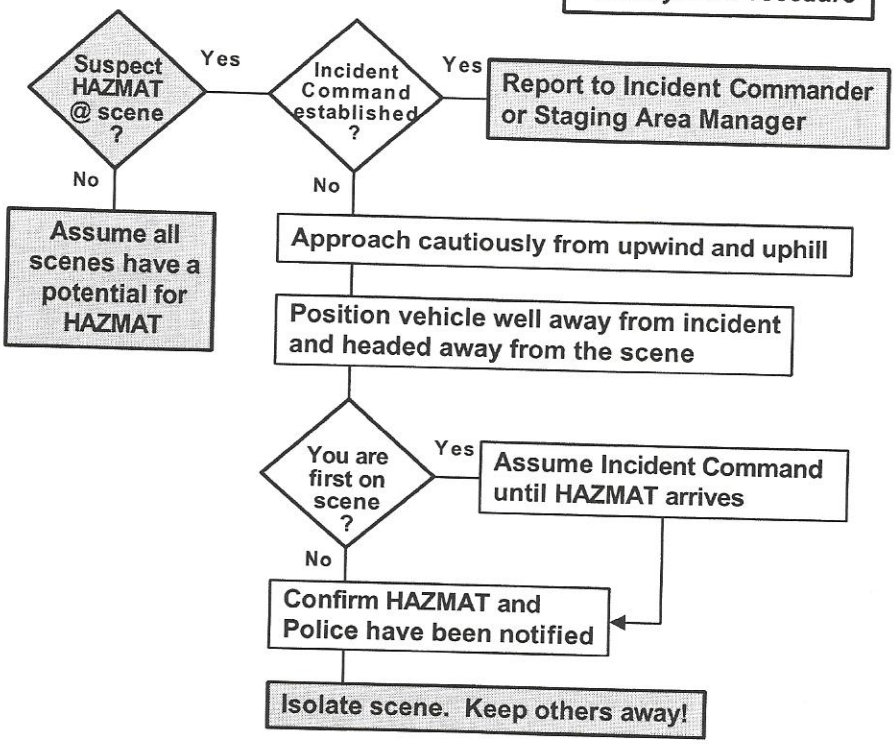
Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# HAZMAT

For Non-HAZMAT personnel

*See ALso Attached County MCI Procedure*




**Patient Care**

- Determine material involved from HAZMAT team
- Advise Medical Control of material involved and request direction for treatment
- HAZMAT or Fire will be responsible for initial decontamination and patient packaging
- Don personal protective equipment as directed by HAZMAT team
- Receive packaged patient at decontamination corridor from HAZMAT or Fire and transfer to PREPARED ambulance
- Treat as directed by Fire, HAZMAT and Medical Control

See page 2 of 2

Approved: James C Locke / Executive Director

Approved: Irvin Smith /Medical Director

# HAZMAT

For Non-HAZMAT personnel



**Ambulance Preparation**

- Prepare ambulance as directed by HAZMAT or Fire
- Remove all non-essential supplies/equipment
- Place patient in a body bag and enclose up to the patients head.

**Transport**

- Notify receiving facility: provide relevant information and ask where they would like you to park
- Do NOT enter the ER without specific direction from the ER staff
- After transferring the patient to ER staff, return to the ambulance and remain inside. Do not move the vehicle or allow others inside.
- Contact Incident Commander to determine how and where the vehicle should be decontaminated.

Old protocols calling for ambulance draping are time consuming and ineffective

**EMS Personnel Exposure**

- **If exposed at scene:** remove yourself from further contamination and report incident to Safety Officer or HAZMAT and wait for direction.
- **If exposed enroute to the hospital:** inform ER and await direction.
- After decontamination and treatment, receive clearance from HAZMAT Group Supervisor or ER MD AND your supervisor before returning to duty.

**Document:**
- Patient Care
- Response to Treatment
- Hazardous Material
- Communication with ER, Medical Control, HAZMAT
- Measures Taken to Limit Exposure
- Decontamination

Approved: James C Locke / Executive Director

Approved: Irvin Smith /Medical Director

# Hypertension
**not related to pregnancy**

- **ABC's**
- **Oxygen 2-4 lpm NC** (1)
- **Prepare patient for transport**

**Monitor:**
SpO2 (if available)
Vital Signs

Supportive Care

**Prepare patient for transport**

**Hypertensive Crisis =**
Systolic BP ≥ 200 mmHG
Diastolic BP ≥ 130 mmHG
and symptoms of end organ compromise, ie., congestive heart failure, pulmonary edema, unstable angina, changes in mental status, CNS changes, renal disease.

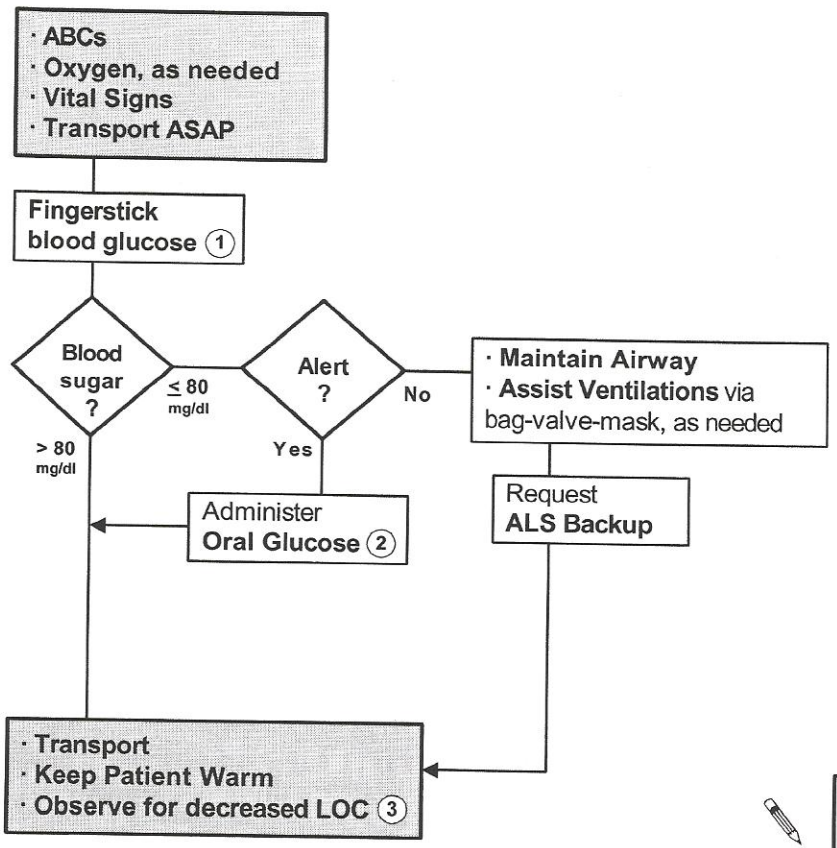
**Document:**
- **Airway**
- **Vital Signs, SpO2**
- **Signs & Symptoms**
- **Treatment**
- **Glasgow Coma Scale**
- **Communication with ALS unit**

**1 Adjust oxygen concentration to patient needs.** Consider hypoxic drive in COPD.

Approved: 1/1/10
James C Locke / Executive Director

Approved: 1/1/10
Irvin Smith /Medical Director

# Hypoglycemia




**Document:**
- **Airway**
- **Airway Management**
- **Respiratory Effort**
- **Vital Signs, SpO2**
- **Treatment**
- **Signs & Symptoms**
- **LOC**
- **Blood Sugar**
- **Glasgow Coma Scale**

**1** Accu-Check Testing is restricted to EMT-B's completing the KY EMT-B supplemental curriculum and approved by the Fire Chief and MREMS.

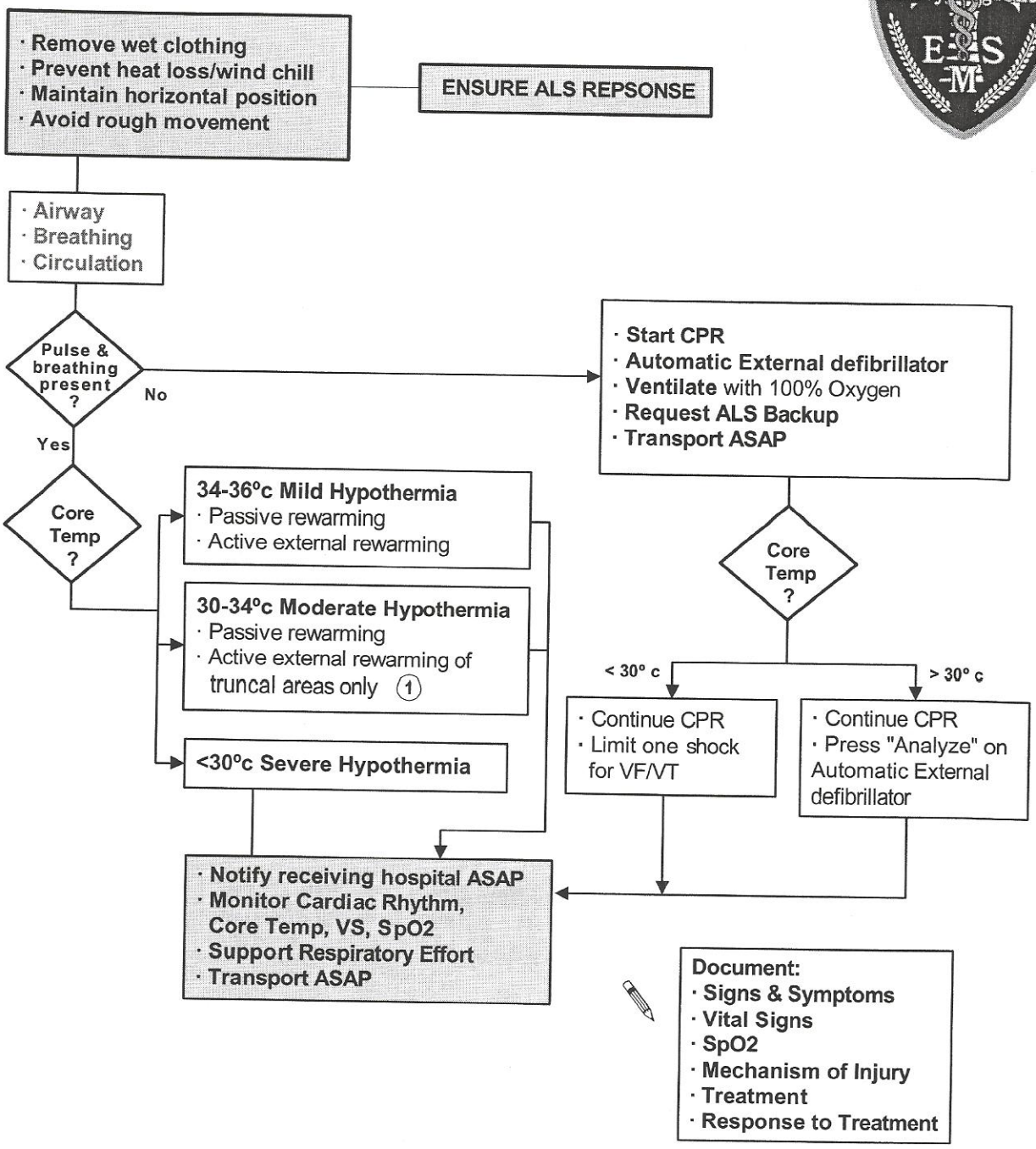
**2** Full glass of sweetened juice or **Glucose Oral Paste** 12.5g PO. May repeat dose if condition improves or if a second fingerstick blood glucose check remains below 80 mg/dl. Must have an intact gag reflex.

**3** Observe for decreased LOC, focal neurological findings, and hypothermia.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Hypothermia

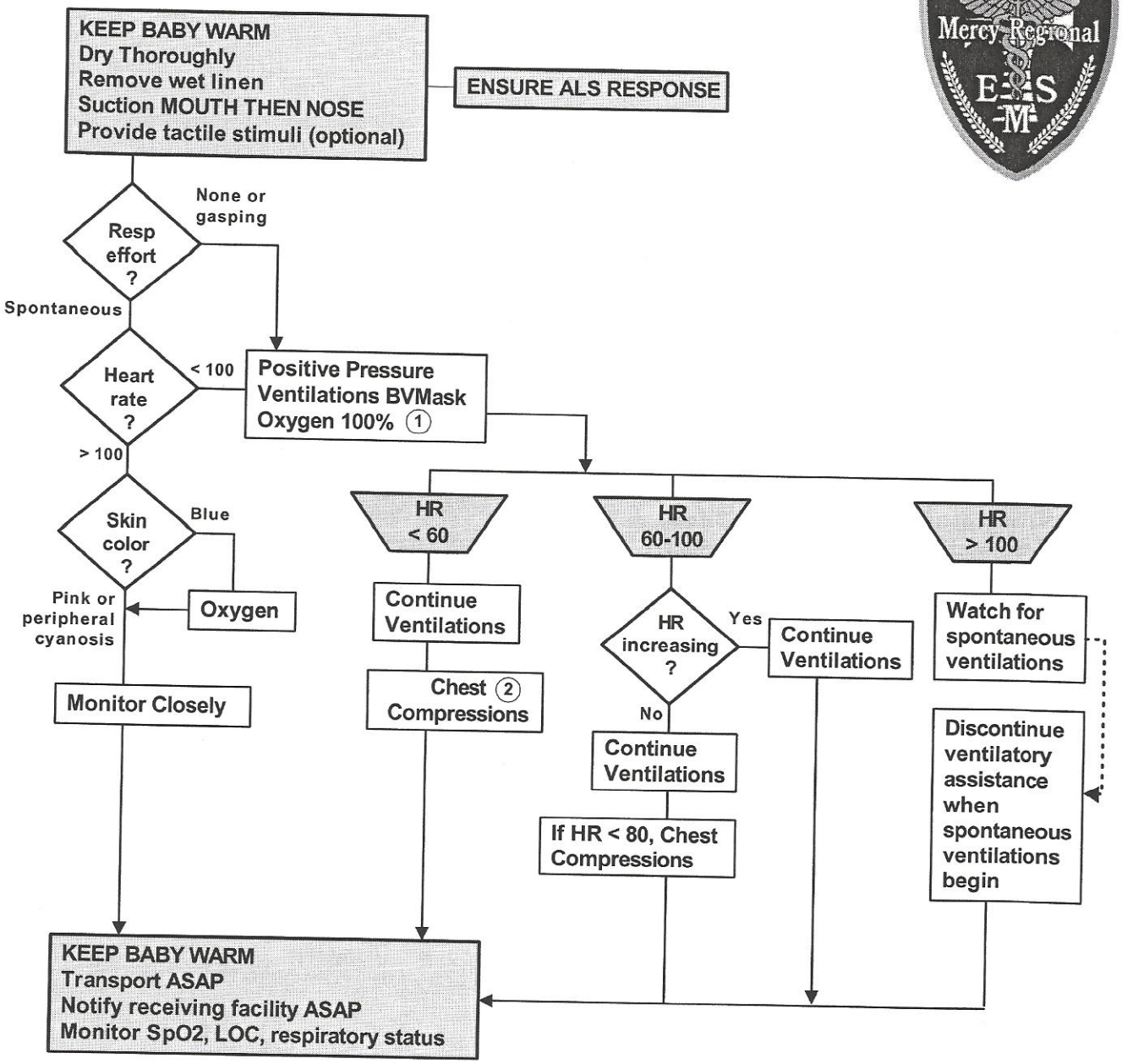



**1 Methods include:** electrical or charcoal warming devices, hot water baths, heating pads, radiant heat sources and warming beds, forced air warming devices.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith / Medical Director

## Neonatal Resuscitation




**1** Positive pressure ventilations at 30 breaths per minute
**2** Compression / ventilation ratio is 1/3 with 30 ventilations and 90 compressions for a total of 120 events per minute

Approved: 10/1/10
James C Locke / Executive Director

Approved: __/__/__
Irvin Smith /Medical Director

# Overdose and Poisoning
# General Management

**SCENE SECURE PRIOR TO ENTRY**
- **ABCs**
- **Oxygen**
- **Assist ventilations, prn**
- **Prepare patient for transport**

- **Detailed Assessment** (1)
- **Assess level of consciousness** (2)(3)

**ALERT ?**

No → See Altered Mental Status / COMA Protocol

Yes

**Contact the responding ALS Unit or Poison Control for specific management and treatment**

**Maintain Airway**
**Monitor for:**
**Seizure, decreased LOC, confusion, vomiting,**

**Internal Contamination:**
- What was ingested ?
- Time of consumption ?
- Amount consumed ?
- Past medical history ?

**External Contamination:**
- Protect self and crew
- Remove contaminated clothing
- Flush contaminated skin and eyes with copious amount of water (4)

**Document:**
- **Type of Ingestion, Poisoning**
- **Signs & Symptoms**
- **Treatment**
- **Clinical Response to Treatment**
- **Vital Signs, SpO2**
- **Airway Management**
- **Conversations with Medical Control and/or Poison Control**

**Glasgow Coma Scale**

| | | |
|---|---|---|
| Eye Opening | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| Best Verbal Response | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| Best Motor Response | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

1 **Observe environment closely for signs of potential overdose.**
2 **Pupillary response** may indicate type of overdose/poisoning; pinpoint pupils: narcotics, opiates, phenothiazines, cholinergics; dilated pupils: trycyclics, anticholinergics, cocaine, m ethamphetamine.
3 Determine and document **Glasgow Coma Scale.**
4 **Exceptions include** yet are not limited to: phosphorous, sodium me tal, **Contact Medical Control.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Overdose: Barbiturate

**SCENE SECURE PRIOR TO ENTRY**
- ABCs
- Oxygen
- Assist ventilations, prn
- Oral/Nasal Airway
- Prepare patient for transport

**ENSURE ALS RESPONSE**

**Detailed Assessment**

**BP ?**
- ≤ 90 mmHG → See **Shock** Protocol
- > 90 mmHG

**Support Respiratory Effort**

**Maintain Airway**
**Monitor for Signs & Symptoms highlighted below**

**Document:**
- Signs & Symptoms
- Treatment
- Clinical Response to Treatment
- Vital Signs, SpO2 (if available)
- Respiratory Status
- Glasgow Coma Scale
- Airway Management
- Conversations with ALS unit and/or Poison Control

**Potential Signs & Symptoms of Barbiturate Overdose:**

CNS and respiratory depression, confusion, stupor, **coma, ataxia, vertigo,** headache, **hypotension, cardiovascular collapse, hypothermia, hyperthermia.**

**Barbiturate Possibilities:**
**Butisol. mebenal, nembutal. seconal**

**Glasgow Coma Scale**

| | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Overdose: Carbon Monoxide Poisoning

**SCENE SECURE PRIOR TO ENTRY**
- ABCs
- Oxygen 100% NRB Mask
- Assist ventilations, prn
- Prepare for transport

**Ensure ALS Response**

- Detailed Assessment
- Assess Level of Consciousness

**Maintain Airway**
**Support Respiratory Effort**

**Document:**
- Signs & Symptoms
- Treatment
- Clinical Response to Treatment
- Vital Signs, SpO2
- Cardiac Rhythm
- Skin Color
- Respiratory Status
- Airway Management
- Conversations with ALS unit and/or Poison Control

**Potential Signs & Symptoms of Carbon Monoxide Poisoning:**

Mild headache,
dyspnea on mild exertion,
irritability,
fatigue,
nausea / vomiting,
confusion,
ataxia,
syncope,
seizures,
incontinence,
respiratory arrest,
skin may be bright red in some cases.

**Glasgow Coma Scale**

| | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Overdose: Narcotic

**SCENE SECURE PRIOR TO ENTRY**
- ABCs
- Oxygen 100%
- Prepare patient for transport

→ Ensure ALS Response

Resp depression ?
- Yes → · Assist Ventilations, prn · Oral / Nasal Airway
- No

**Detailed Assessment**

**Maintain Airway**
**Support Respiratory Effort**
**Keep Patient Warm**
**Prepare patient for transport**
**See Potential Signs & Symptoms below**

**Document:**
- Airway
- Airway Management
- Respiratory Effort
- Detailed Assessment
- Treatment
- Clinical Response to Treatment
- Vital Signs, SpO2

**Potential Signs & Symptoms of Narcotic Overdose:**

CNS & respiratory depression,
drowsiness,
nausea, vomiting,
pinpoint pupils,
coma,
cyanosis,
bradycardia.

**Glasgow Coma Scale**

| | | |
|---|---|---|
| **Eye Opening** | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| **Best Verbal Response** | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| **Best Motor Response** | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Overdose: Organophosphate Exposure

**SCENE SAFETY and HAZ-MAT CONTRAINDICATIONS PRIOR TO ENTRY OR PATIENT CONTACT**

- ABCs
- Oxygen 100% NRB Mask
- Assist ventilations, prn
- Brush off excess powder (1) (2) (3)
- Remove contaminated clothing
- Decon with water flushes
- Prepare patient for transport

**Ensure ALS Response**

- Detailed Assessment
- Assess level of consciousness
- Supportive care

**Maintain Airway**
**Support Respiratory Effort**

**Potential Signs & Symptoms of Organophosphate Exposure:**

SLUD:
Salivation, Lacrimation, Urination, Defecation

**Examples of Organophosphate Poisoning:**
Malathion, Proban, Diazinon, other Lawn & Garden pesticides

**Document:**

- Signs & Symptoms
- Treatment
- Clinical Response to Treatment
- Vital Signs, SpO2
- Respiratory Status
- Airway Management
- Mechanism of Exposure
- Conversations with Medical Control and/or Poison Control

1 Brush off excess powder
2 Remove contaminated clothing
3 Decon with water flushes

Approved: _____
James C Locke / Executive Director

Approved: 10/1/11
Irvin Smith /Medical Director

# Overdose: Tricyclic

**SCENE SECURE PRIOR TO ENTRY**
- ABCs
- Oxygen
- Assist Ventilations, prn
- * Oral/Nasal Airway
- Prepare patient for transport

**Ensure ALS Response**

**Detailed Assessment**

**Seizure present ?** — Yes → **See Seizure Protocol**

No

**BP ?** (≤ 90 mmHG) → **See Shock Protocol**

> 90 mmHG

**Maintain Airway**
**Support Respiratory Effort**
**Keep Patient Warm**
**Prepare for transport**
**See Potential Signs & SX below**

**Tricyclics include:** (brand names)
**Amitriptyline** (amitril, elavil, endep, emitrip, enovil, etrafon, limbitrol, triavil). **Amoxapin** (asendin). **Desipramine** (norpamin). **Doxepin** (sinaquan). **Imipramine** (tofranil). **Maprotiline** (ludiomil). **Nortriptyline** (aventyl, pamelor). **Protriptyline** (vivactil). **Trimipramine** (surmontil).

**Document:**
- Airway
- Airway Management
- Signs & Symptoms
- Treatment
- Response to Treatment
- Vital Signs, SpO2
- Glasgow Coma Scale

**Potential Signs & Symptoms of Tricyclic Overdose:**
Tachycardia,
Decreased LOC,
Seizures,
Cardiovascular collapse.

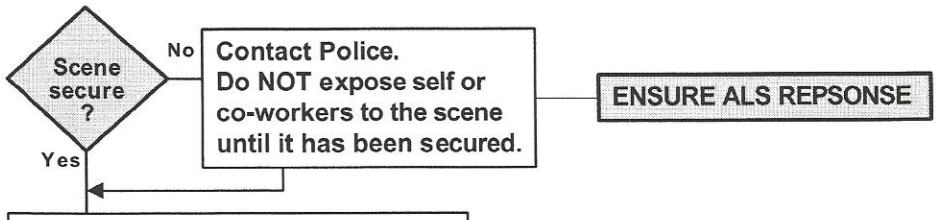
**Glasgow Coma Scale**

| | | |
|---|---|---|
| Eye Opening | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| Best Verbal Response | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| Best Motor Response | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

Approved: 10/10
James C Locke / Executive Director

Approved: 1/1/__
Irvin Smith /Medical Director

## Patient Care




**Primary Survey:**
**A · Airway** c-spine motion restriction
**B · Breathing**
**C · Circulation**
**D · Disability** neuro exam
**E · Expose**

**Detailed Assessment:**
· Vital Signs
· History
age, chief complaint, medical history, allergies, current meds

**Monitor Patients**
· SpO2 (if available)
· Clinical Status

**Apply appropriate protocols based on assessment**

**Contact responding ALS unit as indicated by protocols and when you have a question or a complication arises**

**Maintain patient confidentiality at all times**

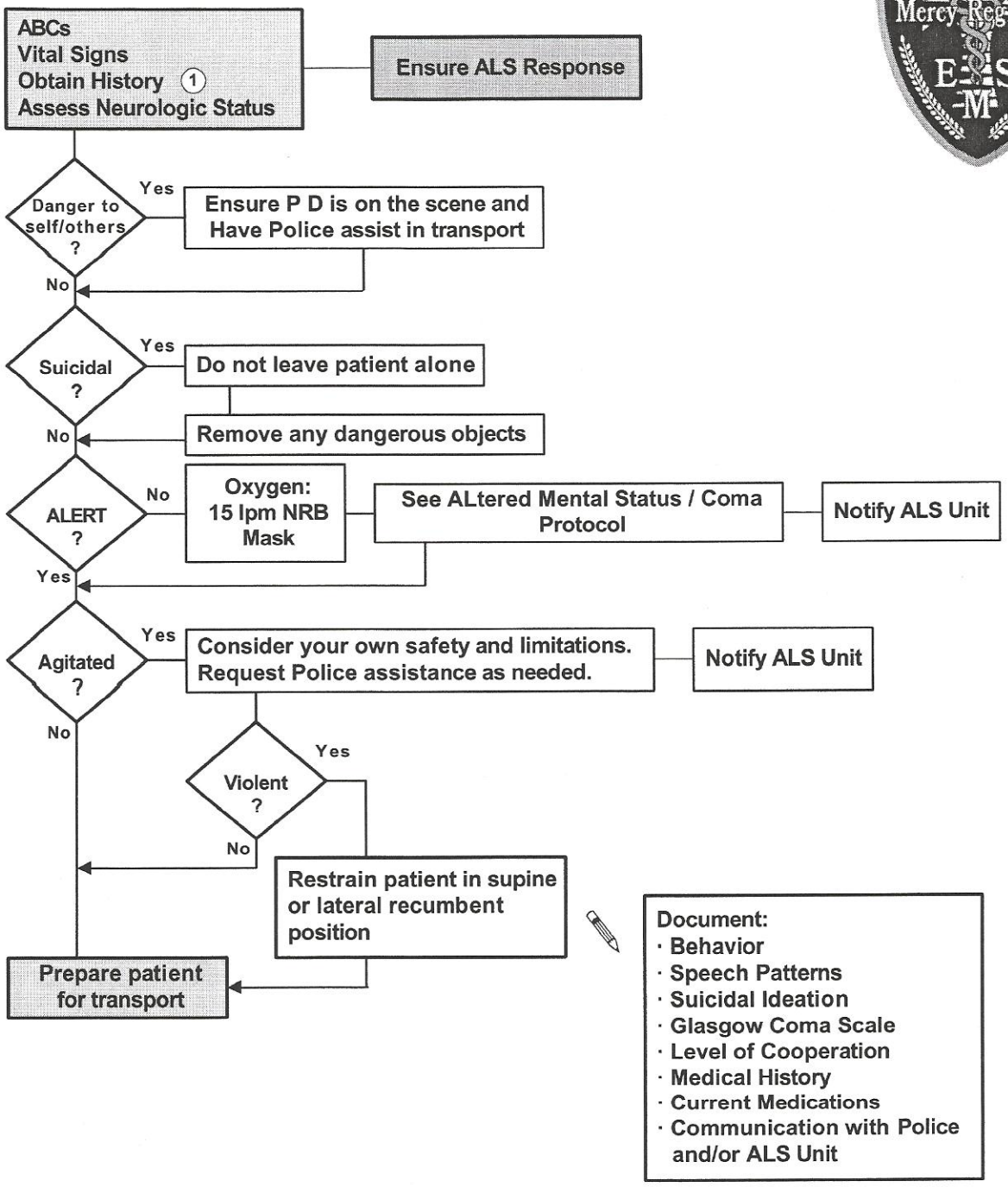
**ENSURE ALS REPSONSE**

**Document:**
· ABCs
· Detailed Assessment
· Vital Signs
· SpO2 (if available)
· Neurologic Findings
· Glasgow Coma Scale
· Medical History
· Current Medications
· Allergies
· Treatment Prior to Your arrival
· Treatment You Provide
· Response to Treatment
· Communication with ALS unit

Approved: 1/20/10
James C Locke / Executive Director

Approved: 10/1/08
Irvin Smith /Medical Director

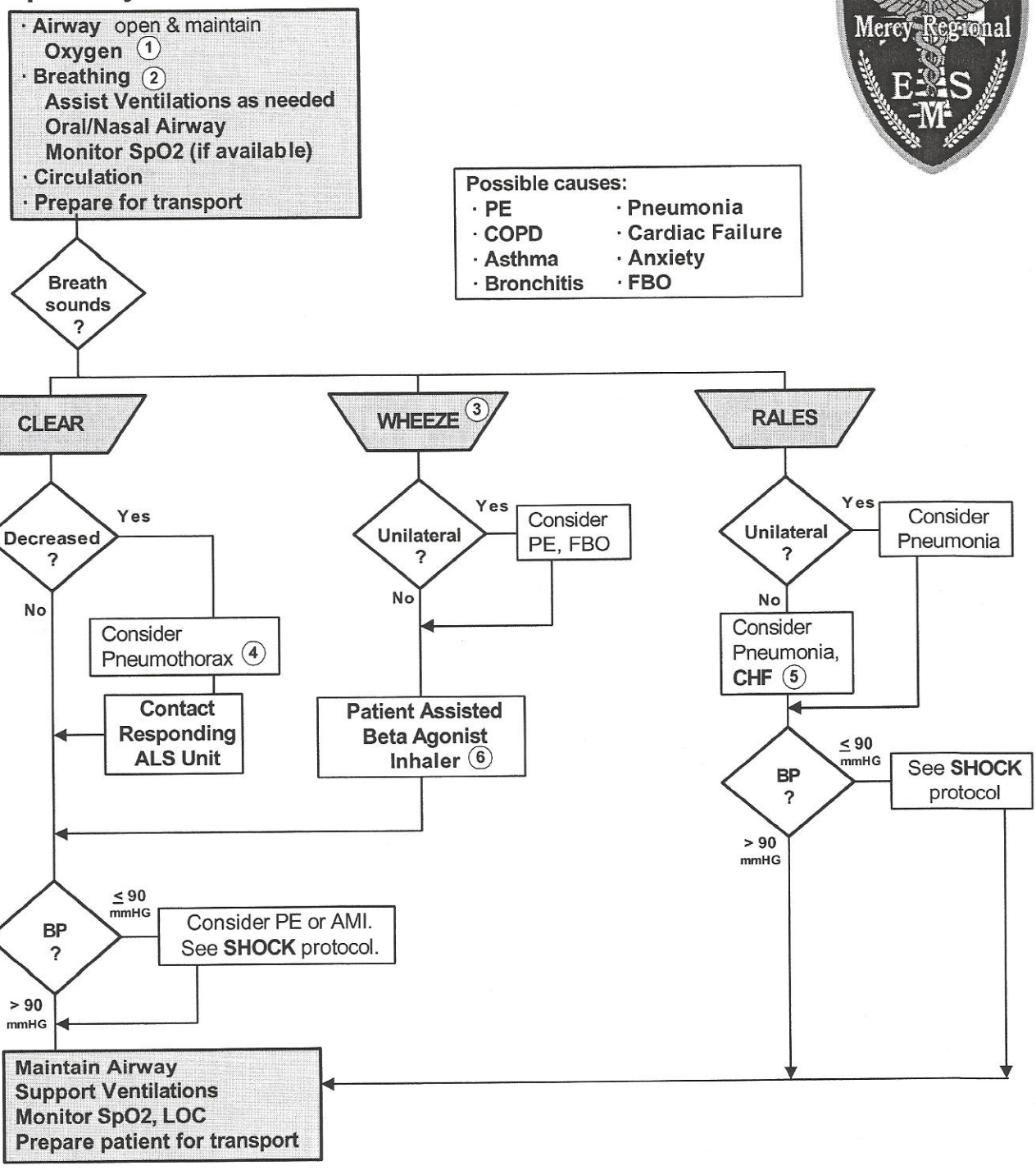
## Psychiatric & Behavioral Disorders




1 Note: Bizarre behavior, abrupt change in behavior, suicidal ideation, possible drug or alcohol ingestion, history of diabetes, etc. Look for Medic Alert tag.

| | |
|---|---|
| Approved: 10/1/10<br>James C Locke / Executive Director | Approved: 10/1/10<br>Irvin Smith /Medical Director |

# Respiratory Distress




1 **COPD** patients often use their **hypoxic drive.** In these cases expect & accept SpO2 readings < 90 and > 85%.

2 **Notify ALS Unit if:** ventilations need to be assisted · decreased LOC · SpO2 < 90% despite therapy · respiratory rate < 10 > 29 · patient responds with single word phrases, obvious signs of fatigue · use of accessory muscles, or on your discretion.

3 **Wheeze** may be caused by: CHF, PE ASTHMA, aspiration.

4 Consider Tension Pneumothorax. **Request ALS Backup** as needed.

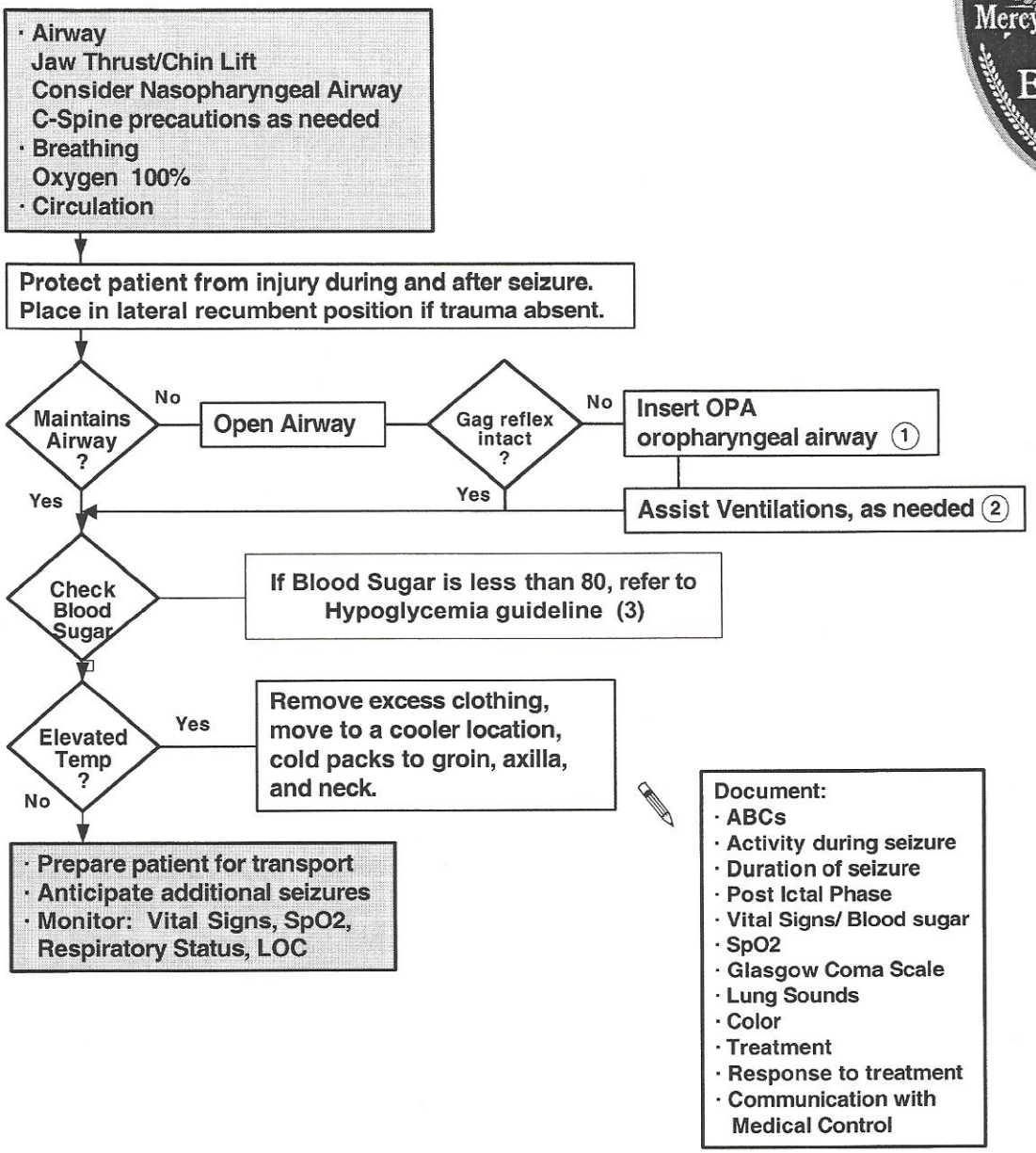
5 **Signs/symptoms** often seen with Congestive Heart Failure are: pulmonary edema; pink, frothy sputum; shortness of breath; shallow, rapid breaths; patient prefers to sit upright; distended neck veins; rapid heart rate; generalized edema (often seen within feet/ankles); agitation; on auscultation you may hear rales and/or wheeze.

6 **Beta agonist inhaler administration is restricted to EMT-B's completing the KY EMT-B supplemental protocols and approved by the Fire Chief and MREMS.**

Approved: 1/1/__
Irvin Smith /Medical Director

Approved: 1/1/__
James C Locke / Executive Director

# Seizure




1 **Do NOT attempt to insert an OPA (oropharyngeal airway) during a seizure. NOTE: most post-ictal patients do not need an OPA.** If an OPA is used, be prepared to remove OPA as consciousness returns. Consider a nasopharyngeal (trumpet) airway.

2 **Ventilatory assistance** may be required yet most post-ictal patients do NOT need assistance.

3 **Follow Hypoglycemia guideline. Patient must be conscious to recieve oral glucose or glucose containing solution.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

## Sexual Assault

**SCENE SECURE PRIOR TO ENTRY**
Protect the scene and evidence

ABCs
Vital Signs

Offer reassurance (1)
and emotional support

Do not allow the patient to bathe, change clothes, or use the restroom. Do not cut clothes. If the patient must urinate, collect the specimen and do not allow patient to wipe.

Notify Police if they are not present. Final jurisdiction will rest on law enforcement where the assault took place.

Document direct quotes

Follow appropriate treatment protocols

Prepare patient for transport

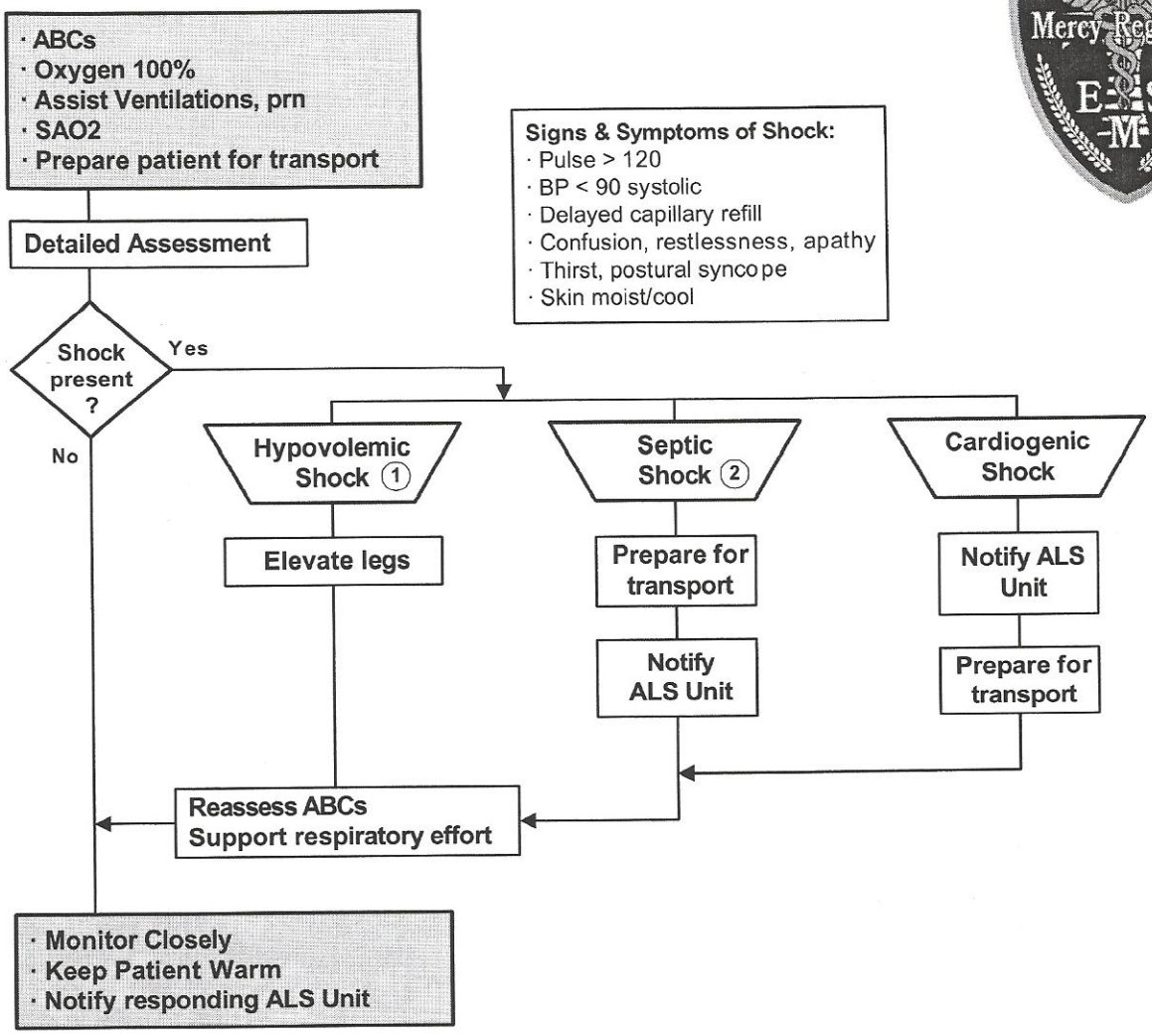
Document:
- ABCs
- Vital Signs
- Direct Quotes
- Chain of Evidence
- Communication with Police

1. Make a effort to have provider of same sex with patient if possible.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Shock



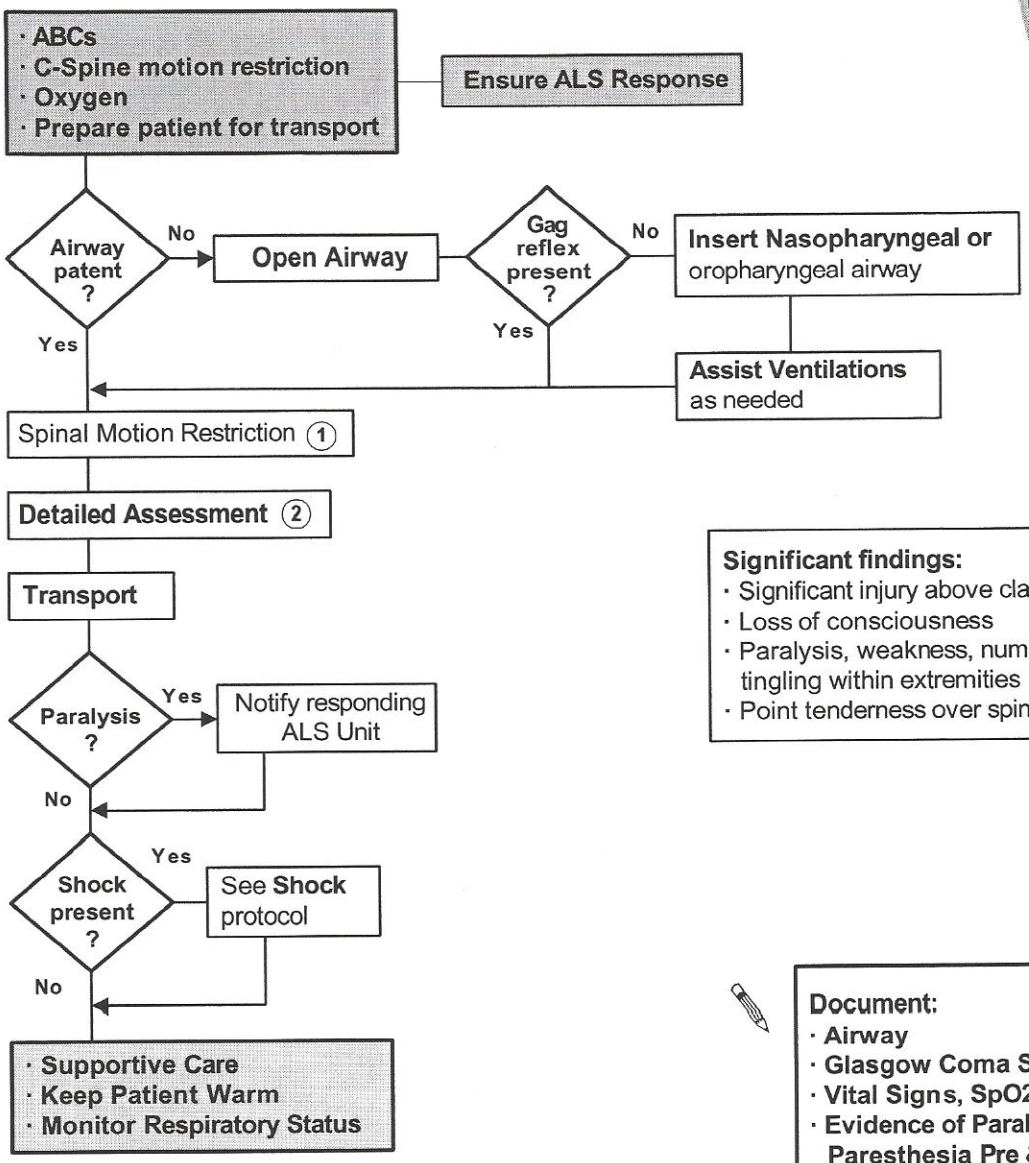

Document:
- Airway
- Respiratory Effort
- Lung Sounds
- Quality of Pulses
- Signs & Symptoms of Shock
- Vital Signs, SpO2
- Glasgow Coma Scale
- Skin Color, Temperature
- Cardiac Rhythm
- Response to Fluid Bolus
- Core Temp in Septic Shock

1 See trauma protocols if appropriate. Control external bleeding.
2 Septic shock in a child is a medical emergency. Expedite transport!

Approved: 10/1/10
James C Locke /Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Spinal Cord Injury
Suspected




**Significant findings:**
- Significant injury above clavicles
- Loss of consciousness
- Paralysis, weakness, numbness, tingling within extremities
- Point tenderness over spine

**Document:**
- Airway
- Glasgow Coma Scale
- Vital Signs, SpO2
- Evidence of Paralysis or Paresthesia Pre & Post Spinal Immobilization (3)
- Loss of Consciousness
- Mechanism of Injury
- Presence or Lack of Tenderness Over Spine
- Treatment

1 Maintain STRICT spinal motion restriction: manual, c-collar, CS ID, LSB, Straps.

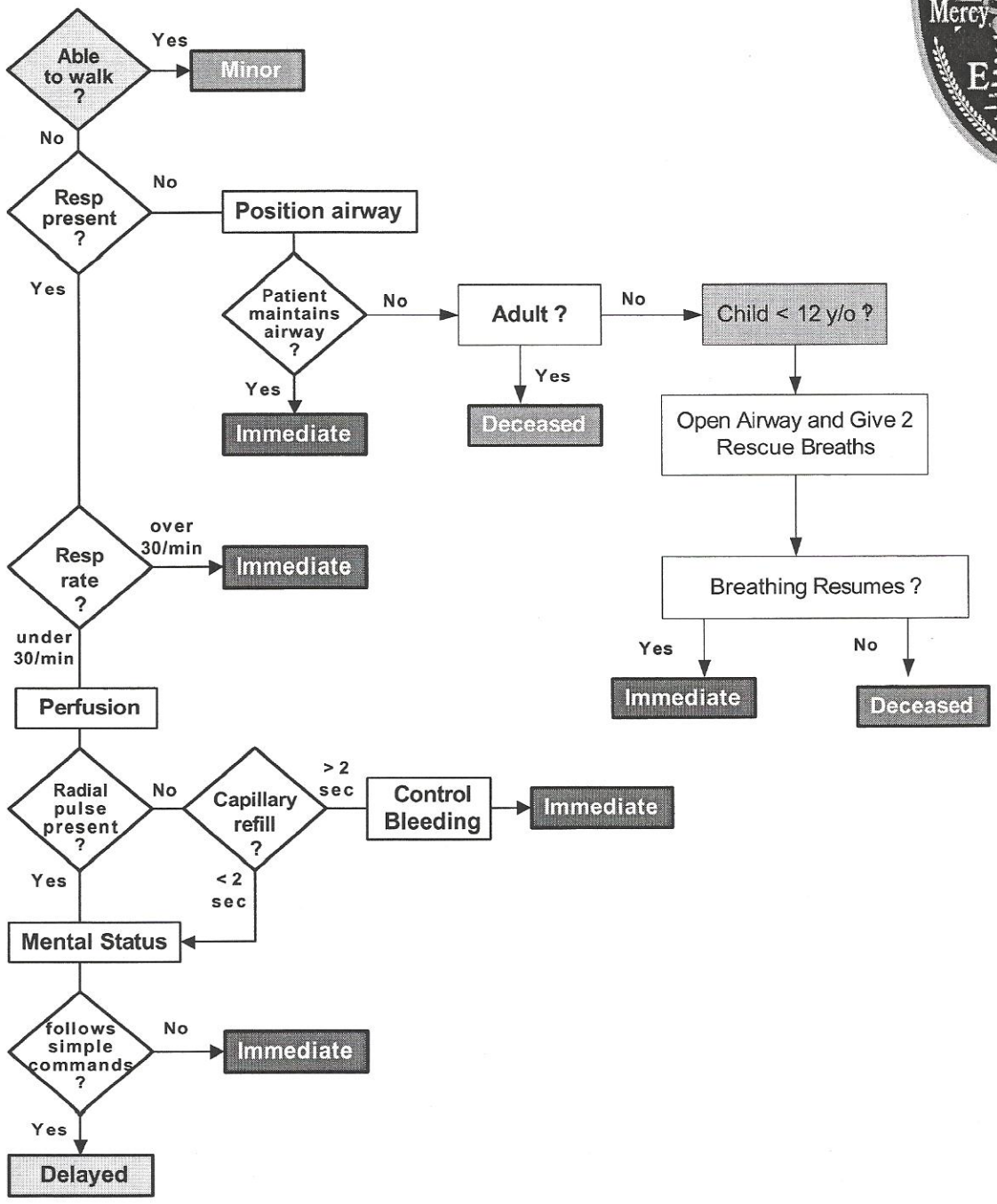
2 Secondary Survey to include frequent neurological checks, CMS (circulation, motor, sensation). Determine level of injury-dermato me involved.

3 **Parasthesia** - numbness, tingling sensation

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

## START Triage

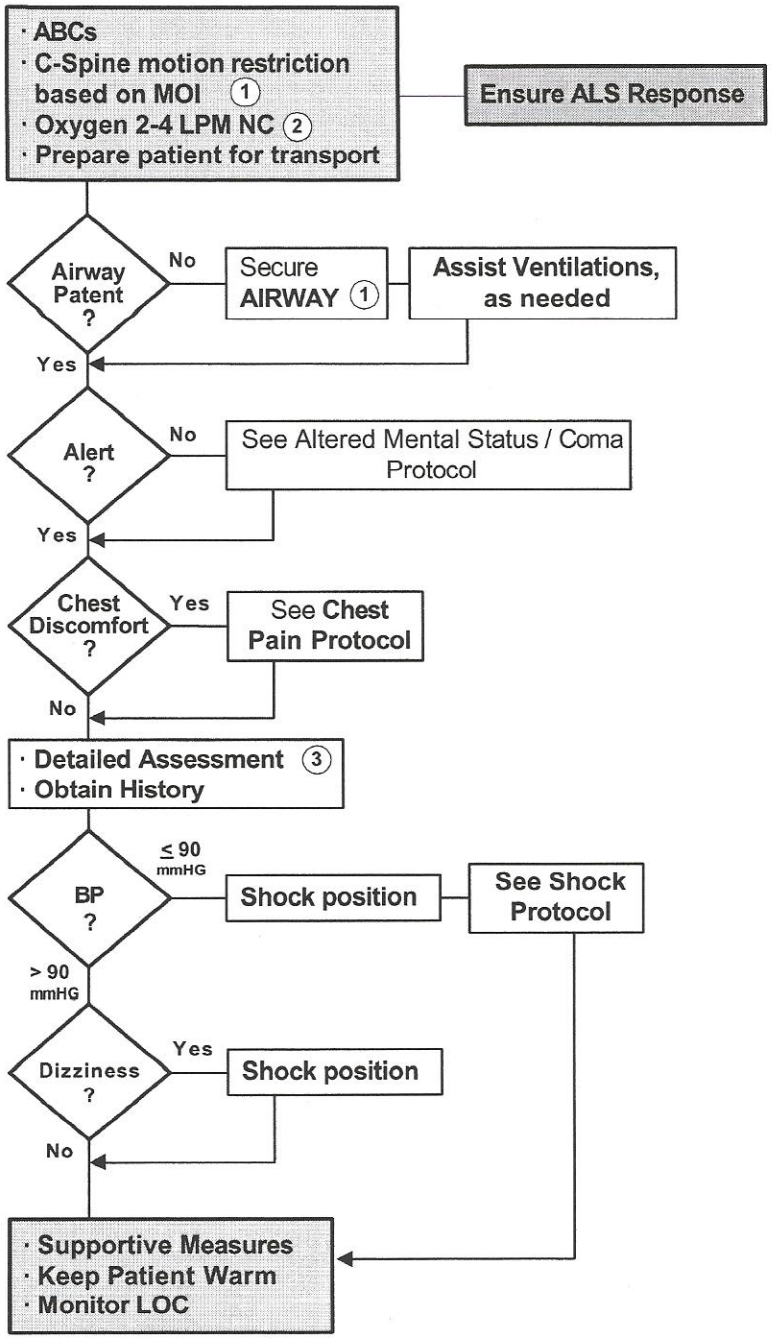



**The clinician should view this protocol as an adjunct to your systems disaster plan ONLY if START Triage is a part of that plan. This protocol does not constitute or attempt to substitute for a disaster plan and should only be used in conjunction with a system-wide response, approved in your area.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Syncope




**Possible causes:**
- Medications
- Vasovagal response
- Hypovolemia
- Vasodilatation
- Dysrhythmias
- Fatigue
- Heart Disease
- Heat Stroke

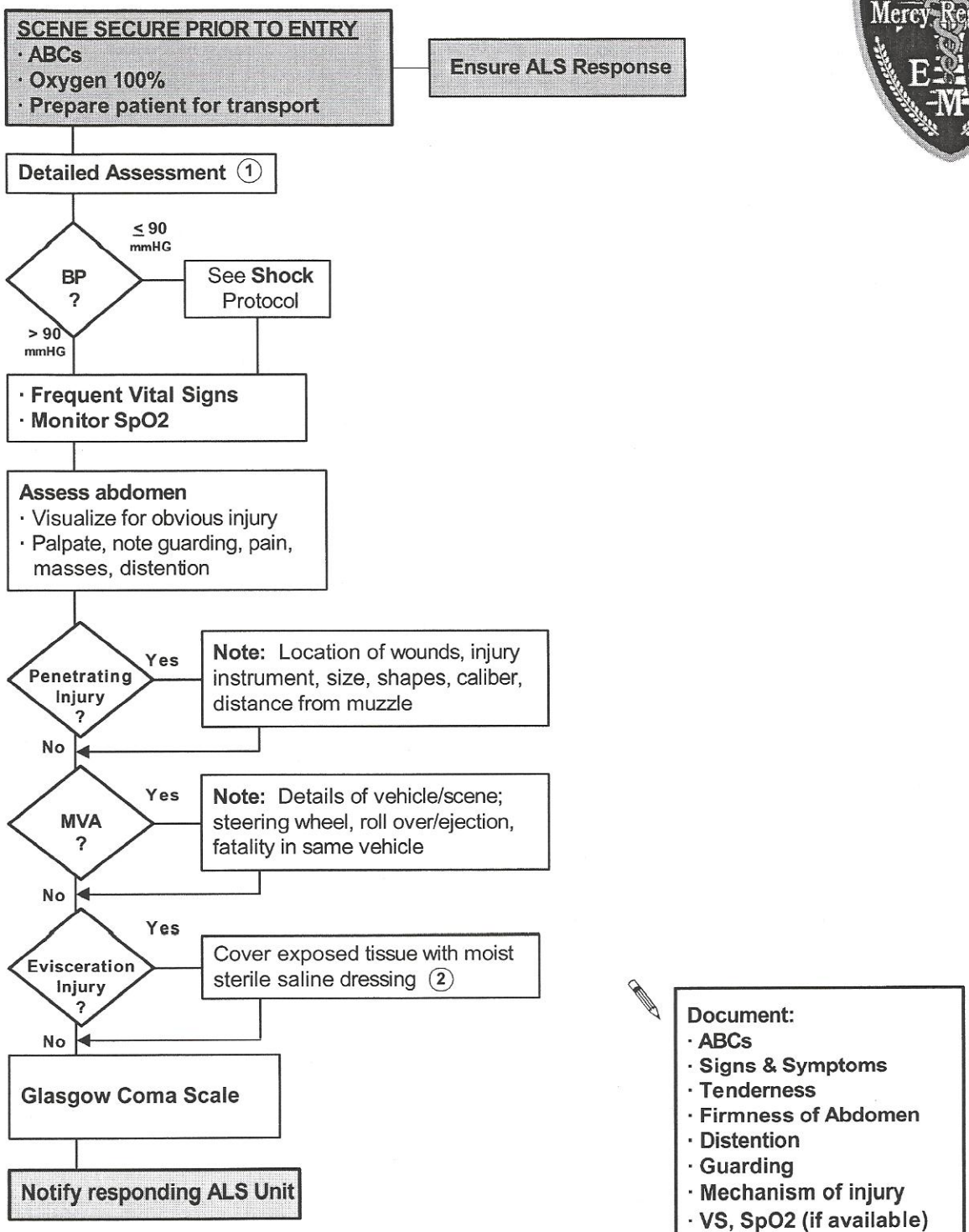
**Document:**
- **Medications**
- **Onset & Duration of LOC**
- **Activity Prior to LOC**
- **Recent or Chronic Illness**
- **Trauma**
- **Seizure Activity**
- **SpO2, GCS, Vital Signs**
- **Capillary Refill**
- **Lung Sounds**

1 Establish spinal motion restriction if associated with fall or trauma.
2 Higher concentration of oxygen may be indicated. Consider hypoxic drive in COPD.
**3 Monitor SpO2, Capillary Refill, Glasgow Coma Scale and Vital Signs.**

Approved: 8/1/10
James C Locke / Executive Director

Approved: 8/1/10
Irvin Smith /Medical Director

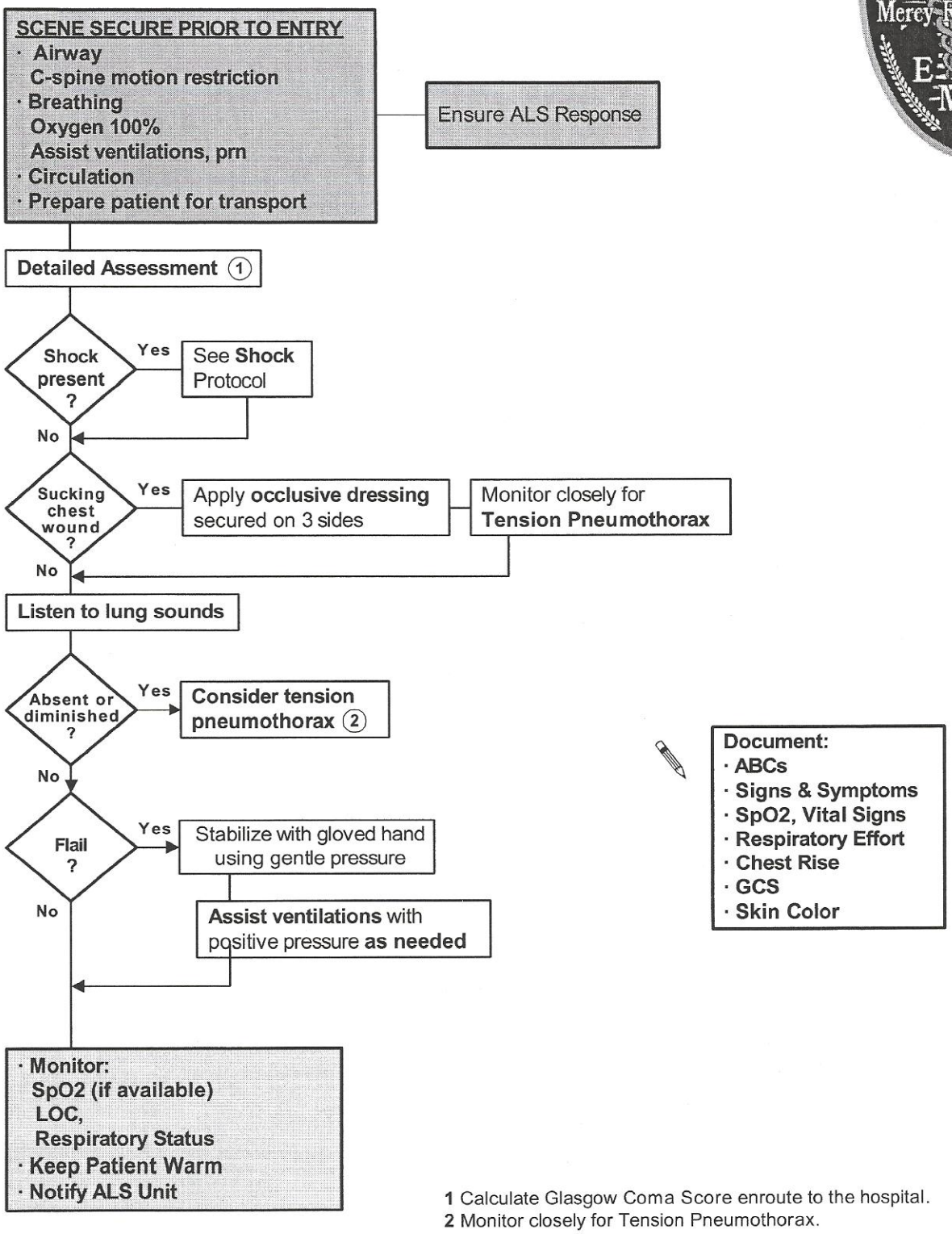
# Trauma: Abdominal




1 Assessment: associate injury site with underlying anatomy.
2 Do not reduce or attempt to reinsert abdominal contents.

| | |
|---|---|
| Approved: 10/1/10 | Approved: 10/1/10 |
| James C Locke / Executive Director | Irvin Smith /Medical Director |

# Trauma: Chest

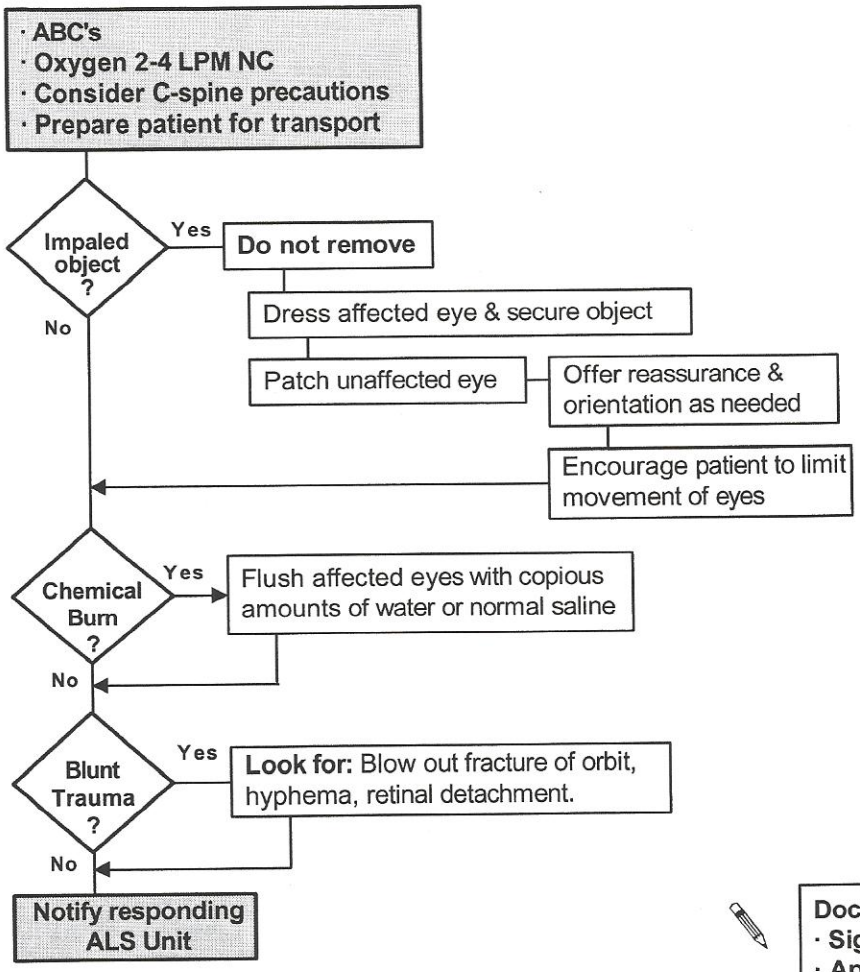



1 Calculate Glasgow Coma Score enroute to the hospital.
2 Monitor closely for Tension Pneumothorax.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

## Trauma: Eye Injury

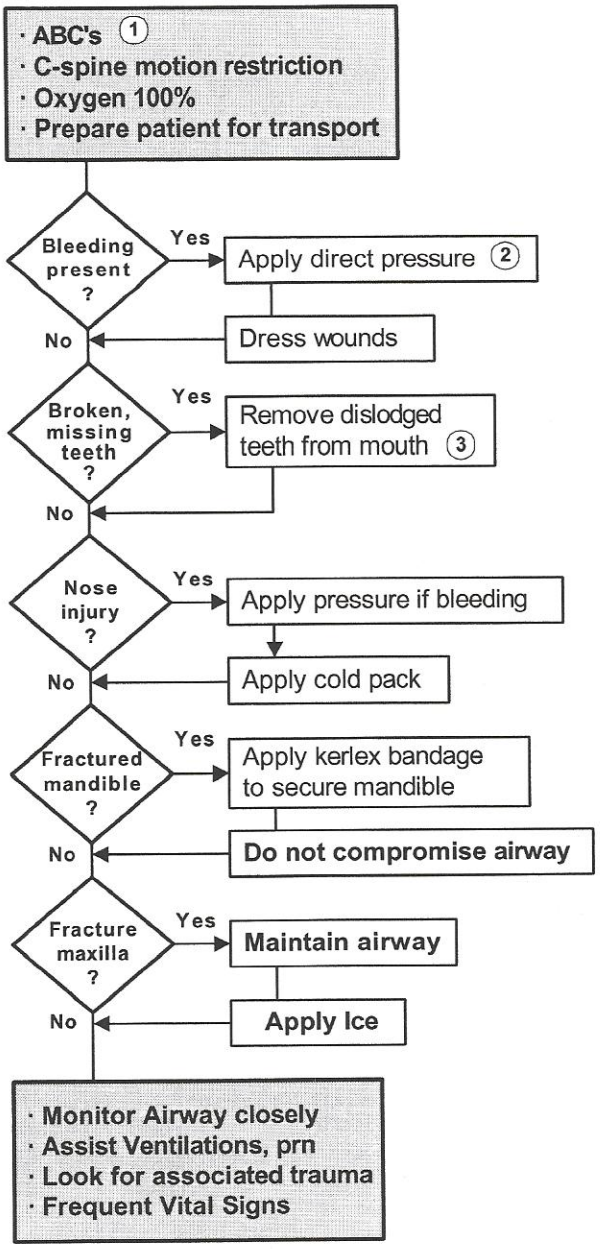



**Document:**
- **Signs & Symptoms**
- **Appearance of eye**
- **Quality, nature of pain**
- **Pupil, size, reaction to light**
- **Treatment**
- **Glasgow Coma Scale**
- **Mechanism of Injury**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Trauma: Facial



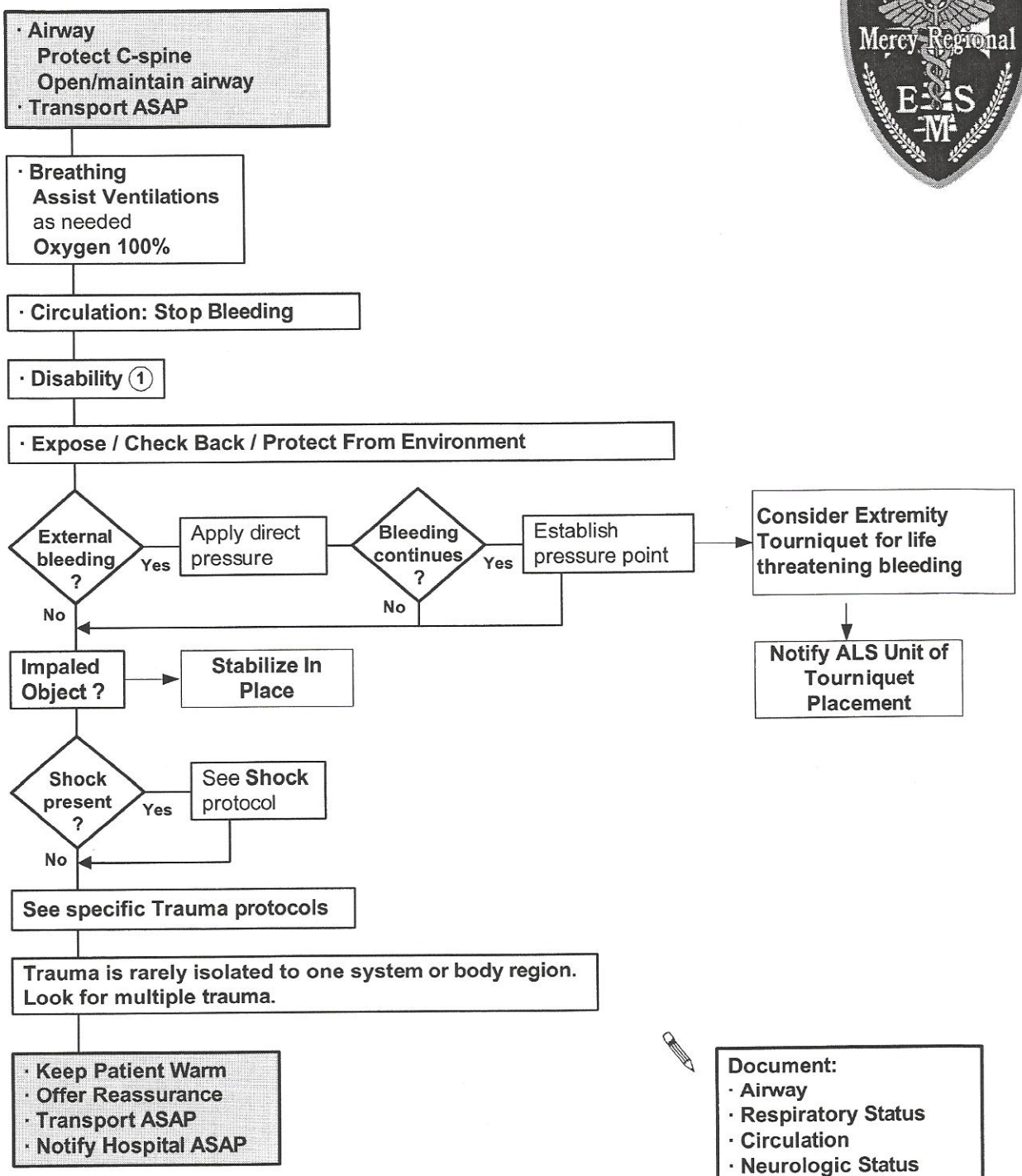

**Document:**
- **Signs & Symptoms**
- **Airway**
- **Respiratory Effort**
- **SpO2 (if available)**
- **Pupil: Size, Reaction to Light**
- **Eyes Conjugate?**
- **JVD?**
- **Trachea, Midline?**
- **Fluid from Ears?**
- **Fontanels in Infant**
- **Treatment**
- **Glasgow Coma Scale**
- **Mechanism of Injury**

1 **If the patient has airway problems, respiratory distress or is hemodynamically unstable, notify responding ALS unit.**
2 Use **pressure point** if needed.
3 If you find an intact **missing tooth** pick it up by it's crown (protect root) and place in milk while enroute to the hospital.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Trauma: General Management



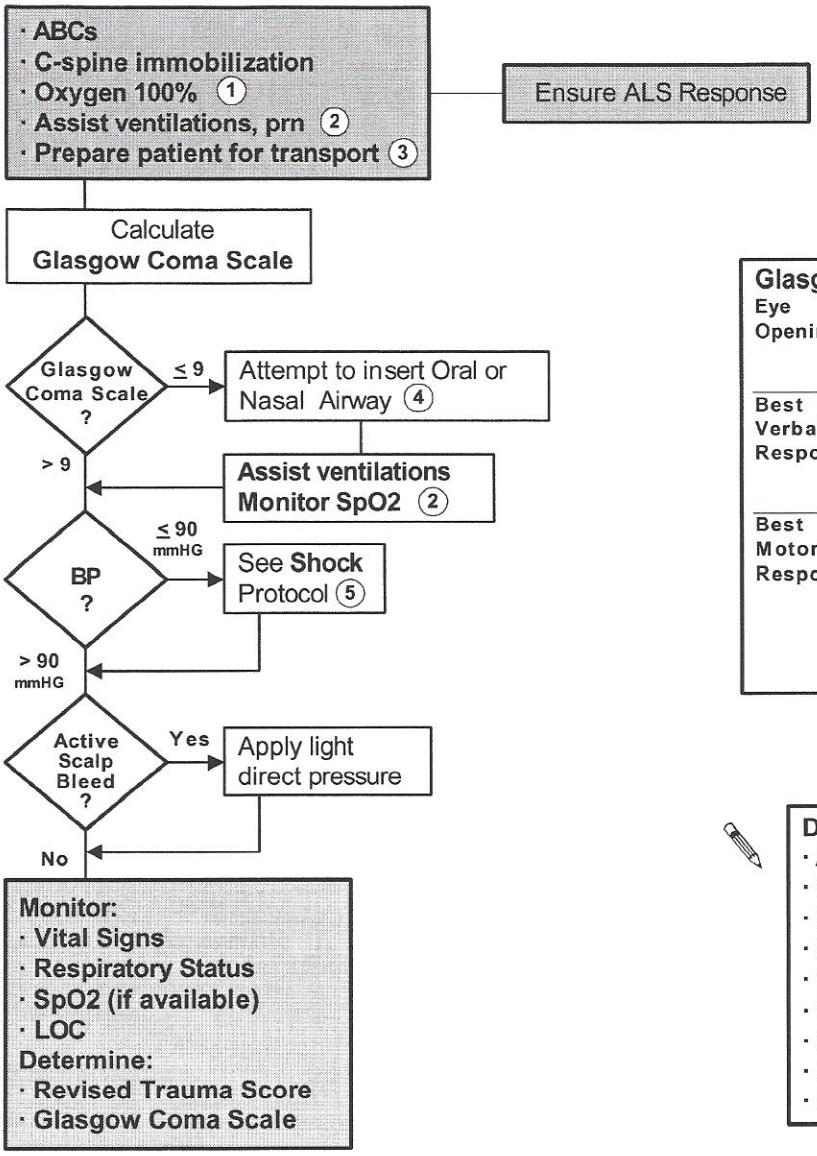

Document:
- Airway
- Respiratory Status
- Circulation
- Neurologic Status
- Glasgow Coma Scale
- Revised Trauma Score
- Detailed Assessment
- Vital Signs, SpO2
- Treatment

1. Calculate Glasgow Coma Scale and Revised Trauma Score.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Trauma: Head Injury




| Glasgow Coma Scale | | |
|---|---|---|
| Eye Opening | Spontaneous | 4 |
| | To Voice | 3 |
| | To Pain | 2 |
| | None | 1 |
| Best Verbal Response | Oriented | 5 |
| | Confused | 4 |
| | Inappropriate words | 3 |
| | Incomprehensible words | 2 |
| | None | 1 |
| Best Motor Response | Obeys Commands | 6 |
| | Localizes Pain | 5 |
| | Withdraws (Pain) | 4 |
| | Flexion | 3 |
| | Extension | 2 |
| | None | 1 |

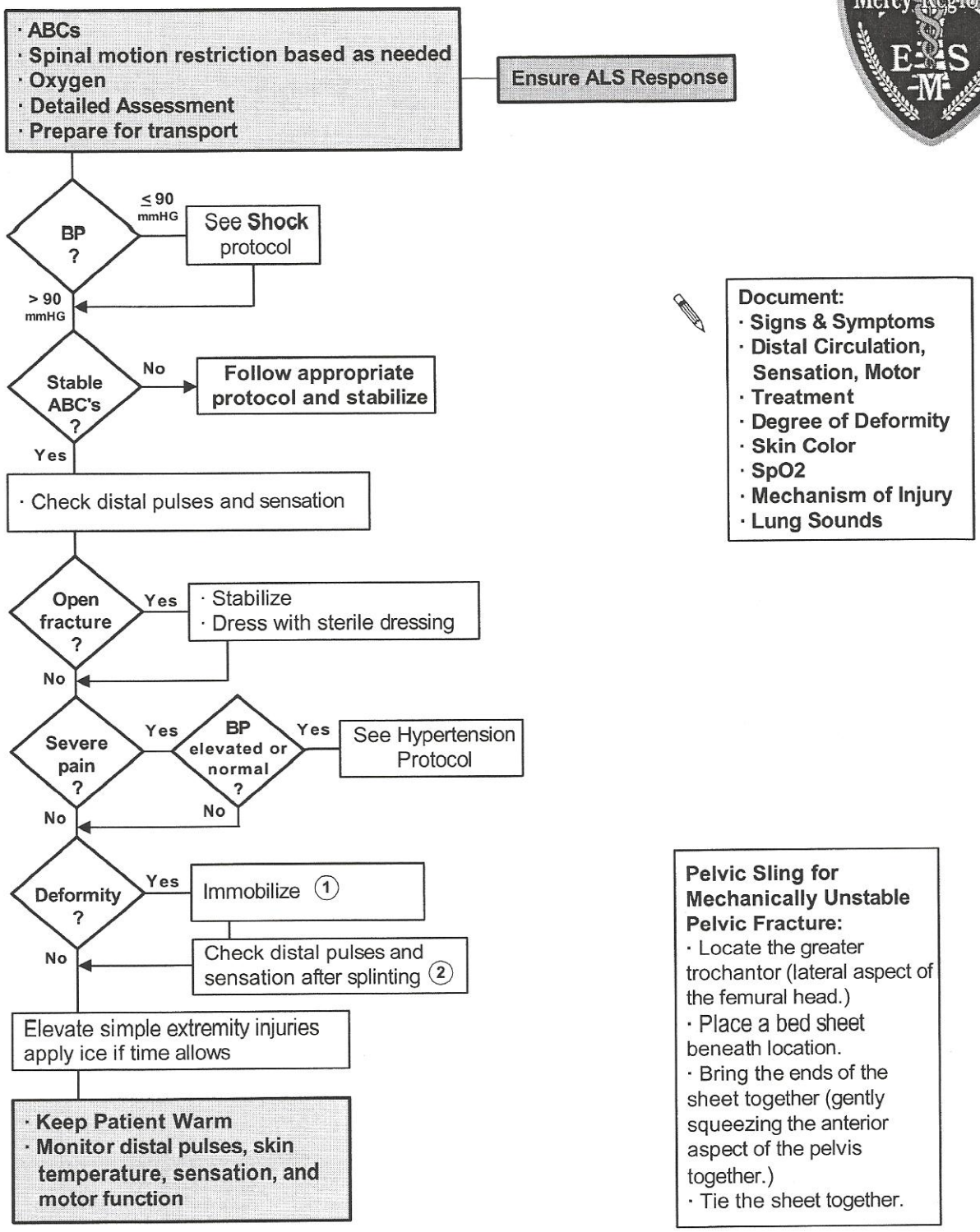
**Document:**
- **ABCs**
- **Signs & Symptoms**
- **Glasgow Coma Scale**
- **SpO2, VS**
- **Motor/Sensation**
- **Respiratory Effort**
- **Skin Color**
- **Mechanism of Injury**
- **Onset & Duration of LOC**

1 **Oxygen 100%** per non-rebreathable mask or bag-valve-device as needed.
2 **Aggressive ventilatory support** may be needed. If the patient's ventilations are not effective secure the patient's airway and assist ventilations.
3 **Every head-injured patient who has had a period of unconsciousness must be evaluated at a hospital.**
4 Insert OPA **oropharyngeal airway** ONLY IF gag reflex is absent. Avoid nasal airway if basal skull fracture or mid-face fracture is suspected
5 Isolated head injuries rarely cause shock. If shock is present look for another cause. **Note: Head injury may cause shock in infants.**

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director

# Trauma: Orthopedic




**Document:**
- **Signs & Symptoms**
- **Distal Circulation, Sensation, Motor**
- **Treatment**
- **Degree of Deformity**
- **Skin Color**
- **SpO2**
- **Mechanism of Injury**
- **Lung Sounds**

**Pelvic Sling for Mechanically Unstable Pelvic Fracture:**
- Locate the greater trochantor (lateral aspect of the femural head.)
- Place a bed sheet beneath location.
- Bring the ends of the sheet together (gently squeezing the anterior aspect of the pelvis together.)
- Tie the sheet together.

1 Immobilize the joint above & below the injury.
2 **SpO2 monitoring** may help you confirm circulation in an extremety.

Approved: 10/1/10
James C Locke /Executive Director

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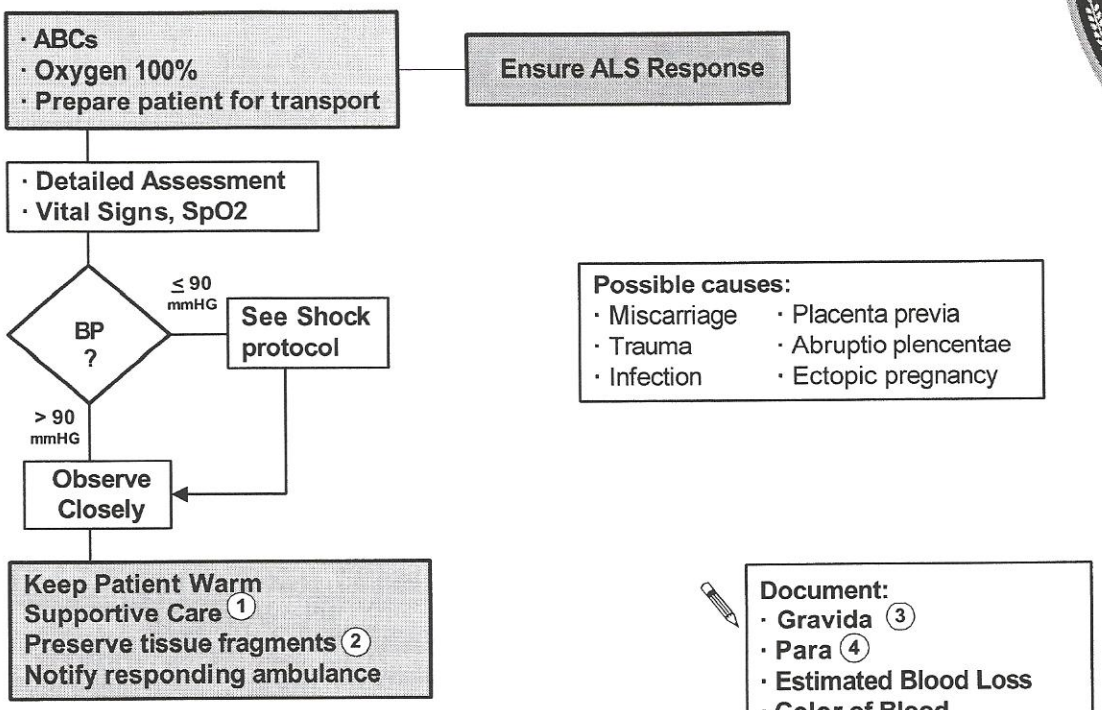
Irvin Smith /Medical Director

# Vaginal Bleeding




**1** If possibility of assault exists maintain chain of evidence. If possible, have a female attendant in the patient ca re area.
**2** Collect tissue fragments and blood if present.
**3** **Gravid:** pregnant, heavy with child. Record the number of times the patient states she has been pregnant, *i.e., Gravida, 3* indicates the patient has been pregnant 3 times, including her current pregnancy if she is pregnant at the time of the exam.
**4** **Para:** this is the number of live, viable births she has d elivered.

Approved: 10/1/10
James C Locke / Executive Director

Approved: 10/1/10
Irvin Smith /Medical Director