ADULT MEDICAL EMERGENCIES

October, 2016, Reviewed 2023

INITIAL MEDICAL CARE

FR TREATMENT:

1. Place the patient in a position of comfort; loosen any tight clothing, reassure and calm the patient. Sit the patient in an upright position if more comfortable and not hypotensive.
2. Administer OXYGEN by appropriate method when indicated and attempt to maintain oxygen saturation at 94-99%.
3. If patient has inadequate ventilation or respiratory effort refer to the UNIVERSAL AIRWAY ALGORITHM.
4. Perform patient assessment and obtain SAMPLE history and vital signs, including Blood Glucose. Check for medical alert tags or cards.
5. Repeat and record vital signs every 5 to 15 minutes and relay any significant changes to persons who continue patient care.
6. If patient becomes pulseless and apneic, begin CPR and refer to CARDIOPULMONARY ARREST Protocol.

BLS TREATMENT:

1. Continue FR TREATMENT
2. Perform 12-lead ECG within 10 minutes of patient contact and transmit to receiving facility (if available
3. Initiate transport** **Consider intercept per INTERCEPT CRITERIA.**
4. Contact Medical Control.
5. If patient becomes pulseless and apneic, begin CPR and refer to CARDIOPULMONARY ARREST Protocol.

ILS/ALS TREATMENT:

1. Continue **FR/BLS TREATMENT.**
2. If ILS/ALS interventions are to be performed, apply cardiac monitor prior to intervention(s)
3. Consider the need for an advanced airway; refer to the UNIVERSAL AIRWAY ALGORITHM.
4. If patient needs immediate intubation requiring conscious sedation, refer to MEDICATION ASSISTED INTUBATION protocol.
5. Perform 12-lead EKG (if available) within 10 minutes of patient contact and transmit to receiving facility (if available).
6. Obtain vascular access if needed.

**** Only if transporting agency**

ADULT FOREIGN BODY AIRWAY OBSTRUCTION

CRITERIA:

1. Respiratory difficulty
2. Suspected upper airway foreign body obstruction

TREATMENT: ALL LEVELS

Conscious patient – able to speak:

1. INITIAL MEDICAL CARE.
2. Leave patient alone; offer reassurance.
3. Encourage coughing.

Conscious patient – unable to speak:

1. Administer abdominal thrusts until the foreign body is expelled or until the patient becomes unconscious.
2. After the obstruction is relieved, reassess the airway, lung sounds, skin color and vital signs.
3. INITIAL MEDICAL CARE.

Unconscious patient

1. Place patient in a supine position and begin chest compressions.
2. Open the airway and check for FBAO. If object is visible, perform finger sweep to remove.
3. f object is not visible, continue chest compressions until object dislodged.
4. **ILS/ALS only:** Perform advanced airway control measures as available, using the UNIVERSAL AIRWAY ALGORITHM. Utilize Magill forceps as necessary.
5. **ALS only:** If unable to clear obstruction, consider surgical airway placement, as outlined in the UNIVERSAL AIRWAY ALGORITHM

ALCOHOL RELATED EMERGENCIES

EXCLUSION:

1. Conditions which may mimic alcohol consumption including:
    a. Diabetes
    b. Pneumonia
    c. Head injury
    d. Overdose

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
    a. Check blood glucose level
2. Treat patient in calm, firm manner.
3. If patient exhibits violent behavior, restrain as necessary per restraint guideline.
    a. Restrain in the presence of law enforcement wherever possible.
    b. Utilize a minimum of 4 personnel for safety.
1. Continue **FR/BLS TREATMENT.**
2. Consider 20 ml/kg NS fluid bolus to maintain SBP of 90-100 or MAP > 65.

ILS/ALS TREATMENT:

1. Continue **FR/BLS TREATMENT.**
2. Consider 20 ml/kg NS fluid bolus to maintain SBP of 90-100 or MAP > 65.

ALLERGIC REACTION/ANAPHYLAXIS

NOTE: For patients experiencing a possible allergic reaction without serious signs or symptoms, perform Initial Medical Care and contact Medical Control.

CRITERIA:

1. Possible exposure to allergen, including:
   a. Hives (Urticaria)
   b. Itching
   c. Swelling
   d. Rash
2. DuoNeb nebulizer for wheezing. May repeat X2 if needed for continued symptomatic relief.Respiratory difficulty or stridor
3. Signs and symptoms of shock

FR TREATMENT:

1. INITIAL MEDICAL CARE.
2. DuoNeb nebulizer for wheezing. May repeat x2 if needed for continued symptomatic relief
3. Relay information to incoming ambulance

BLS TREATMENT:

1. Continue **FR TREATMENT**.
2. EPINEPHRINE (1:1,000) 0.3 mg IM lateral thigh or deltoid.
3. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue **BLS TREATMENT**.
2. If SBP < 90, administer 20 ml/kg NS fluid bolus. May repeat fluid bolus as needed to maintain SBP of 90-100 as long as lungs remain clear.
3. BENADRYL 50 mg IV or IM.
4. METHYLPREDNISOLONE (Solu-Medrol) 125 mg IV.
5. Reassess need for intubation if respiratory symptoms worsen or do not improve with treatment.

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6. Consider additional EPINEPHRINE (1:1,000) 0.3 mg IM.
7. If patient experiences respiratory arrest, or if respiratory arrest is imminent, consider EPINEPHRINE

ALTERED LOC
UNCONSCIOUS/UNKNOWN ETIOLOGY

NOTE: If narcotic overdose is suspected, administer NARCAN prior to DEXTROSE.

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE. a. Check blood glucose level.

2. Immobilize cervical spine if suspected spinal injury.
3. If blood glucose < 60 mg/dl (or suspected) **and** patient is conscious with an intact gag reflex, administer one tube of ORAL GLUCOSE.
4. Perform F.A.S.T. Stroke Screen if suspect neurologic cause.
5. If **airway compromise** or **inadequate respiratory effort** present, administer intranasal NARCAN at 1 mg/ml per nostril via atomizer* (1 ml per nostril maximum; 2 mg total dose). May repeat in 2-3 minutes to a maximum dose of 4 mg if no response.
6. Relay information to incoming ambulance or call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue **FR/BLS TREATMENT**.
2. IV NS KVO or saline lock
3. If blood glucose < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
4. **Alternative medication:** 10% dextrose in 250 ml of sterile water (D10W); administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia.
5. If no IV access available, administer GLUCAGON 1 mg IM.
6. If **airway compromise** or **inadequate respiratory effort** present, administer NARCAN:
   IV or IM – 0.4 mg; may repeat every 2-3 minutes to a maximum dose of 4 mg, if no response.
   IN – 1 mg/ml per nostril via atomizer* (1 ml per nostril maximum; 2 mg total dose). May repeat in 2-3 minutes to a maximum dose of 4 mg if no response.
7. Reassess need for intubation. Refer to UNIVERSAL AIRWAY ALGORITHM.

***Intranasal medications must be administered through an atomizer; Maximum volume per nostril = 1 ml.**

ALTITUDE ILLNESS

DEFINITIONS:

- **Acute Mountain Sickness:** Headache plus one of more of the following: anorexia, nausea or vomiting, fatigue or weakness, dizziness or lightheadedness or difficulty sleeping. These symptoms must occur in the setting of recent arrival to high altitude (generally considered greater than 5000 – 7000 feet).
- **High Altitude Pulmonary Edema (HAPE):** Progressive dyspnea, cough, hypoxia, and weakness in hi altitude environments (considered greater than 8000 feet). Patients may or may not exhibit symptoms if acute mountain sickness precedes symptoms of HAPE.
- **High Altitude cerebral edema (HACE):** Heralded by mental status changes in patients with symptoms of acute mountain sickness including altered mentation, ataxia or stupor and pregressing to coma. Typically seen in high altitude environments (greater than 8000 feet).

TREATMENT: ALL LEVELS

1. Ensure scene and rescuer safety
2. INITIAL MEDICAL CARE.
3. Perform ABCs and manage airway as necessary.
4. Ad minister supplemental oxygen to maintain oxygen saturation ≥90%
5. Descend to lower altitude.
    a. Descent is the mainstay of therapy and is the definitive therapy for all altitude related illnesses
    b. Descent should be initiated as soon as scene conditions permit.

April, 2019

BITES AND ENVENOMATION

FR/BLS TREATMENT:

1. **INITIAL MEDICAL CARE**
2. If signs of allergic reaction, refer to ALLERGIC REACTION/ANALPHYLAXIS Protocol
3. For Insect Bite:
   - a Remove stinger if appropriate
   - b. Apply ice pack
   - c. Minimize movement.
   - d. Remove constricting items.
4. For Snake Bite.
   - a. Splint limb, bandage and place at level below heart.
   - b. Minimize movement
   - c. Remove constricting items
   - d. Do NOT apply ice.
5. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT
2. Establish IV access as needed.
3. Consider pain management per the PAIN MANAGEMENT Protocol.

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BRONCHOSPASM/ASTHMA/COPD

CRITERIA:

1. Respiratory distress, may include:
   a. Tachypnea
   b. Use of accessory muscles
   c. Wheezing
   d. Diminished breath sounds
   e. Prolonged expiratory phase
   f. History of asthma, bronchitis, pneumonia, CHF or COPD

FR/BLS TREATMENT:

1. **INITIAL MEDICAL CARE.**
2. DuoNeb by nebulizer. May repeat x2 if needed for continued symptomatic relief.
3. Call for intercept per INTERCEPT CRITERIA.

ILS TREATMENT:

1. Continue FR/ BLS TREATMENT.
2. METHYLPREDNISOLONE (Solu-Medrol) 125 mg IV.
3. Consider CPAP application.
4. Assist ventilations with in-line nebulizer kit and BVM if necessary.
5. Reassess need for intubation if respiratory symptoms worsen or do not improve with treatment.
6. Call for intercept per INTERCEPT CRITERIA

ALS TREATMENT:

1. Continue ILS TREATMENT.
2. In patients with persistent respiratory distress, consider MAGNESIUM SULFATE 2gm IV in 100ml 0.9% NaCl (Normal Saline) or MAGNESIUM SULFATE 2gm in 50-100ml 0.9% NaCl (Normal Saline) IV over 10-15 minutes.
3. Continue to monitor need for intubation if respiratory symptoms worsen or do not improve with treatment.

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4. EPINEPHRINE 1:1000 at 0.3 mg IM may be used for Status Asthmaticus

(DO NOT administer EPINEPHRINE to patients >50 or with known cardiac disease without orders from Medical Control.)

CARBON MONOXIDE/SMOKE INHALATION

FR/BLS TREATMENT:

1. Assure scene is safe.
2. INITIAL MEDICAL CARE.
   a. Check blood glucose level.
   b. Apply 100% Oxygen via NRB.
3. Call for Intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or Saline Lock
3. Consider the need for early advanced airway if signs of inhalation injury are present. Refer to the UNIVERSAL AIRWAY MANAGEMENT ALGORITHM.
4. Consider cyanide toxicity in smoke inhalation patients. Refer to the CYANIDE POISONING Protocol.
5. Continue to monitor the patient.

April, 2019

CYANIDE POISONING

NOTE: This protocol assumes a Cyanokit or a Cyanide Antidote Kit is available on site.

Criteria:

1. Exposure to cyanide, including:
- a. Ingestion
- b. Inhalation.
- c. Absorption through skin eyes or mucous membranes.
- d. Accidental or intentional injection

2. Signs and symptoms of poison exposure.
- a. Loss of consciousness, Coma, Seizures, Apnea.
- b. Anxiety, Hyperventilation, Tachycardia.
- c. Headache, Nausea/Vomiting.

FR/BLS TREATMENT:

1. Assure the scene is safe and the patient has been decontaminated if needed.
2. **INITIAL MEDICAL CARE.**
3. Call for Intercept per **INTERCEPT CRITERIA.**

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMEqNT
2. IV NS KVO or Saline Lock
3. Cyanokit 5 grams over 15 minutes.
4. If Cyanokit not available, may use Cyanide Antidote Kit per manufacturers recommendation.
5. Monitor patient.

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DIABETIC EMERGENCIES

NOTE: Hypoventilation generally indicates hypoglycemia; hyperventilation generally indicates hyperglycemia.

CRITERIA: (Any may be present)

1. Altered LOC, including:
   a. Blood glucose < 60 mg/dL
   b. History of diabetes
   c. Patient currently taking insulin or oral diabetic medication
2. Signs and symptoms of diabetic ketoacidosis (DKA):
   a. Nausea and vomiting
   b. Fruity or acetone breath odor
   c. Excessive thirst or urination
   d. Kussmaul respirations
3. Signs/symptoms of diabetic hyperosmolar non-ketotic coma, including:
   a. Blood glucose > 300 mg/dL
   b. Altered LOC
   c. Dehydration or hypotension

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. If blood glucose < 60 mg/dl (or suspected) and patient is responsive with a good gag reflex, administer one tube of ORAL GLUCOSE.
3. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREAMENT:

1. Continue FR/BLS TREATMENT.
2. If blood glucose < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
3. Alternative medication: 10% DEXTROSE in 250 ml of sterile water (D10W). Administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia.
4. f no IV access available, administer GLUCAGON 1 mg IM. May repeat in 5 minutes if no change in LOC.
5. If blood glucose > 300 mg/dl, administer NS at WO rate.

DIVE (SCUBA) INJURY / ACCIDENTS

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. If a SCUBA accident includes associated drowning/near drowning, refer to DROWNING Protocol.
3. If air embolism is suspected, place in left lateral recumbent position (patient lying with the left side down, knees drawn upward and flat.)
4. Apply oxygen as needed with a target oxygen saturation of 94-98%.
    a. Patient with symptoms suspicious for decompression illness should be placed on supplemental oxygen regardless of saturations to enhance washout of inert gas.
5. If patient presents with hypothermia, refer to ENVIRONMENTAL HYPOTHERMIA Protocol.
6. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT
2. Consider CPAP to supplement the awake patient's own spontaneous respiratory effort in patient with signs or symptoms of respiratory difficulty.
    a. Do not use CPAP in patients for whom pulmonary barotrauma is a consideration.
3. Establish IV access.
4. Advance airway management as indicated. Refer to the UNIVERSAL AIRWAY MANAGEMENT ALGORHIM

DROWNING

NOTE: Aggressive airway management is important in the near drowning patient. A high potential for associated conditions, such as cervical spine trauma and hypothermia, also exists. Refer to hypothermia and cervical spine injury protocols as necessary.

TREATMENT: ALL LEVELS

1. Approach scene with due caution for rescuer safety.
2. Remove patient from water with spinal motion restriction precautions.
3. INITIAL MEDICAL CARE.
4. If patient becomes pulseless and apneic, refer to CARDIOPULMONARY ARREST Protocol.
5. If patient presents with hypothermia, refer to ENVIRONMENTAL HYPOTHERMIA Protocol.

ENVIRONMENTAL HYPERTHERMIA

HEAT CRAMPS

1. Muscle pain secondary to profuse sweating, may include:
    a. Cramps in extremities or abdominal cramping

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Remove patient to a cool environment.
3. If nausea and vomiting not present. Have patient drink 16-20 ounces (2 glasses) of electrolyte solution (i.e. Gatorade, Powerade)
4. DO NOT massage cramping muscles.
5. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. f no response to electrolyte solution or none is available, obtain vascular access and administer a fluid bolus of 500 ml NS and reassess patient.
3. If patient remains symptomatic, repeat fluid bolus as long as lungs remain clear.

HEAT EXHAUSTION

CRITERIA:

1. Environmental heat exposure
2. Signs and symptoms of heat exhaustion, may include:
    a. Profuse perspiration
    b. Headache, fatigue, nausea and dizziness
    c. Skin pale and clammy
    d. Normal or decreased skin temperature
    e. Rapid weak pulse and decreased blood pressure.
    f. Shallow respirations

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Remove patient to a cool environment.
3. Place patient in supine position with legs elevated.
4. Cool patient with water and fans; DO NOT induce shivering.
5. Avoid fluids by mouth, especially if patient is nauseated.
6. Call for intercept per INTERCEPT CRITERIA.

ENVIRONMENTAL HYPERTHERMIA *(continued)*

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Administer 500 ml NS fluid bolus and reassess patient.
3. If patient remains symptomatic, repeat fluid bolus as long as lungs remain clear.

HEAT STROKE

CRITERIA:

1. Hot, flushed, dry skin
2. Signs and symptoms of heat stroke, may include:
   a. Sudden onset temperature > 106 F
   b. Altered level of consciousness; may include coma or seizure.
   c. Hot, dry skin (late sign)

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Remove patient to a cool environment.
3. Initiate active cooling:
   a. Remove patient's clothing; protect privacy.
   b. Apply cold packs to neck, groin and armpits.
   d. Cover patient with cool, wet sheets and fan.
   e. DO NOT induce shivering.
4. Be alert for seizures.
5. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Administer 500 ml NS fluid bolus. If patient remains symptomatic, repeat fluid bolus as long as lungs remain clear.
3. Be prepared to treat seizures.

ENVIRONMENTAL HYPOTHERMIA

HYPOTHERMIA (MODERATE)

1. Exposure to cold environment
2. Signs and symptoms of moderate hypothermia, including:
    a. Patient conscious - may be lethargic; Shivering; Pale, cold skin

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Handle patient gently; DO NOT massage cold extremities.
3. Remove patient to warm environment; remove any wet clothing and replace with dry sheets and blankets.
4. Hot packs may be applied to arm pits, groin and abdominal areas.
5. Assess and treat for other injuries as necessary.
6. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Administer 500 ml NS fluid bolus. Use warmed fluid (102°-106°F) if available.
3. May repeat fluid bolus as needed as long as lungs remain clear.

HYPOTHERMIA (SEVERE)

1. Exposure to cold environment
2. Signs and symptoms of severe hypothermia, including:
    a. Decreased LOC, Cold skin, Inaudible heart tones, Unreactive pupils, Slow respirations

FR/BLS TREATMENT:

1. Continue HYPOTHERMIA (MODERATE) Treatment
2. Load and go situation; limit scene time to 10 minutes.
3. INITIAL MEDICAL CARE.
4. Cautiously assess pulse for one full minute; unnecessary CPR could precipitate ventricular fibrillation.
5. If patient is pulseless and apneic after one full minute, refer to HYPOTHERMIC CARDIAC ARREST protocol.
6. Establish airway WITHOUT using mechanical adjuncts; assist ventilations with BVM but DO NOT HYPERVENTILATE.

ENVIRONMENTAL HYPOTHERMIA *(Continued)*

ILS/ALS TREATMENT:

1. ontinue FR/BLS TREATMENT.
2. Administer 500 ml NS fluid bolus. Use warmed (102°-106°F) fluid if available.
3. May repeat fluid bolus as needed as long as lungs remain clear.

FROSTBITE

NOTE: Do not massage frostbitten extremities.

CRITERIA:

1. Cold exposure
2. Signs and symptoms of frostbite, including:
   a. Red, inflamed tissue
   b. Gray or mottled tissue
   c. Waxy tissue that is firm upon palpation.

TREATMENT: ALL LEVELS

1. Remove from cold.
2. INITIAL MEDICAL CARE.
3. Cover frostbitten nose or ears with a warm hand.
4. Have patient place frostbitten hand in his/her armpit.

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5. If ETA is greater than 60 minutes, begin active rewarming:
   a. Immerse extremity in water maintained at a temperature of 100-105 F.
   b. Rewarming should take 30-60 minutes.
   c. Rewarming is complete when frozen area is warm to touch and deep red or bluish in color.
   d. After rewarming, dry gently and cover part with dry sterile dressing and elevate on pillow.

HYPERTENSIVE CRISIS

NOTE: Two of the most common presentations of Hypertensive Crisis are non-compliance with anti-hypertensive medication and recent Cocaine abuse.

NEVER treat hypertension in a suspected acute stroke patient.

CRITERIA:

1. SBP > 200
2. DBP > 130
3. Other signs and symptoms, including:
   a. Altered LOC
   b. Chest pain
   c. Confusion
   d. Headache
   e. Pulmonary Edema

EXCLUSION:

1. Suspected acute CVA
2. Patient < 18 years old
3. Eclampsia
4. Head injury

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Continually assess patient for deterioration and need for airway control.
3. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or saline lock
3. NITROGLYCERIN 0.4 mg SL; may repeat x1 in 5 minutes if no relief.
4. Continuously assess patient for deterioration and need for intubation.

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5. Medical Control may consider additional NITROGLYCERIN 0.4 mg SL. 6. Medical Control may consider MORPHINE SULFATE 2-4 mg IV q 5 minutes.

HYPERVENTILATION

NOTE: An oxygen mask should NEVER be placed on any patient without oxygen flowing.

CRITERIA:

1. Respiratory rate > 28 with sudden onset
2. Signs of hysteria or panic
3. Treatable causes ruled out (diabetes, drug overdose, asthma or COPD, CHF, Tension Pneumothorax)
4. Room air pulse oximetry > 94%

TREATMENT: ALL LEVELS

1. INITIAL MEDICAL CARE.
2. Assessment and History, to include:
   a. Evidence of trauma.
   b. JVD or pedal edema
   c. Auscultation of breath sounds
   d. Examination for retractions, pallor, cyanosis or acetone odor.
3. Document room air pulse oximetry.
4. Attempt to relax and reassure patient; loosen tight clothing; place patient in position of comfort.
5. Administer OXYGEN at 6 lpm by non-rebreather mask.

HYPOTHERMIC CARDIAC ARREST

NOTE: Pulses may be very weak or non-palpable in a severely hypothermic patient. Pulses should be assessed for one full minute to assure pulselessness. Unnecessary CPR could precipitate V-Fib.

Once CPR has been initiated on a hypothermic patient, it should be continued until patient regains adequate circulation, or patient is evaluated by a qualified Emergency Department physician.

CRITERIA: 1. Prolonged cold exposure 2. Pulseless, apneic patient

FR/BLS TREAMENT:

1. Begin CPR and apply AED. Follow CARDIOPULMONARY ARREST Protocol.
2. Defibrillation should be limited to a TOTAL of 3 attempts.
3. Manage airway per UNIVERSAL AIRWAY ALGORITHM.
4. Passive external warming:
    a. Remove patient to warm environment.
    b. Remove wet clothing.
    c. Cover patient with warm, dry blankets.
    d. Administer warmed, humidified OXYGEN as available.
    e. Increase ambient air temperature by increasing cabin heat.
5. Transport patient** in supine or Trendelenburg position (10 degrees).
6. Call for intercept per INTERCEPT CRITERIA.
7. Contact Medical Control.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Follow appropriate dysrhythmia protocol.
    a. Defibrillation and cardioversion should be limited to a total of 3 attempts.
    b. Administer EPINEPHRINE 1:10,000 1mg IV and a single dose of any applicable anti-dysrhythmic.
3. IV NS WO rate; use warm solution (102°-106°F) if available.

**** Only if transporting agency**.

LIGHTNING/LIGHTNING STRIKE INJURY

FR/BLS TREATMENT:

1. Ensure scene and rescuer safety. Recognize that repeat strike is a risk.
2. INITIAL MEDICAL CARE.
3. Assure patent airway. Refer to UNIVERSAL AIRWAY MANAGEMENT ALGORITHM.
4. If in cardiopulmonary arrest, treat per CARDIOPULMONARY ARREST Protocol.
5. Treat burns per BURNS Protocol.
6. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Advanced airway management as indicated. Refer to UNIVERSAL AIRWAY MANAGEMENT ALGORITHM.
3. Establish IV access.
4. Acquire 12-lead ECG. Monitor ECG for potential arrhythmias.
5. Consider early management of pain per the PAIN MANAGEMENT Protocol.

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NAUSEA/VOMITING

CRITERIA:

1. Any patient presenting with significant nausea/vomiting.

FR TREATMENT:

1. INITIAL MEDICAL CARE.
2. Call for intercept per INTERCEPT CRITERIA.

BLS TREATMENT:

1. Continue FR TREATMENT.
2. Administer ZOFRAN ODT 4mg PO.
3. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or Saline Lock.
3. Administer ZOFRAN 4mg IV or IM, or ZOFRAN 4 mg ODT PO

ORGANOPHOSPHATE POISONING

CRITERIA:

Suspected exposure to organophosphate compound

1. Signs and symptoms of exposure, including:
   a. Salivation
   b. Lacrimation
   c. Urination
   d. Diarrhea
   e. Gastrointestinal distress
   f. Emesis

FR/BLS TREATMENT:

1. Assure scene is safe and the patient has been decontaminated if needed.
2. INITIAL MEDICAL CARE.
3. Save all bottles, containers or labels for information. **DO NOT EXPOSE RESCUERS TO ORGANOPHOSPHATES**.
4. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Administer 20 ml/kg NS fluid bolus. May repeat fluid bolus as needed to maintain SBP 90-100 as long as lungs remain clear.
3. If HR < 60, administer ATROPINE 1 mg IV or IM.
4. Repeat ATROPINE 2-4 mg IV q 3-5 minutes to maintain a HR of 70-100.
5. If seizures occur, refer to SEIZURE protocol.

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POISONING AND OVERDOSE

CRITERIA:

1. Exposure to poisonous plant, food, chemical or pharmaceutical agent, including:
   a. Ingestion
   b. Inhalation
   c. Absorption through eyes, skin or mucous membranes
   d. Accidental or intentional injection
2. Signs and symptoms of overdose / poison exposure.

EXCLUSION:

Organophosphate exposure – see ORGANOPHOSPHATE POISONING protocol.

FR/BLS TREATMENT:

1. Assure scene is safe and the patient has been decontaminated if needed.
2. INITIAL MEDICAL CARE.
3. Save all bottles, containers and labels for information**. DO NOT EXPOSE RESCUERS TO POISONOUS SUBSTANCES.**
4. If blood glucose < 60 mg/dl (or suspected) and patient is responsive with a good gag reflex, administer one tube of ORAL GLUCOSE.
5. If **airway compromise** or **inadequate respiratory** effort present, administer intranasal NARCAN at 1 mg/ml per nostril via atomizer* (1 ml per nostril maximum; 2 mg total dose). May repeat in 2-3 minutes to a maximum dose of 4 mg if no response.
6. Relay information to incoming ambulance or call for intercept per INTERCEPT CRITERIA.

ILS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or saline lock.
3. If airway compromise or inadequate respiratory effort present, administer NARCAN : IV or IM – 0.4 mg; may repeat every 2-3 minutes to a maximum dose of 4 mg, if no response. IN – 1 mg/ml per nostril via atomizer* (1 ml per nostril maximum; 2 mg total dose). May repeat in 2-3 minutes to a maximum dose of 4 mg if no response.
4. If blood glucose < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
5. Alternative medication: 10% DEXTROSE in 250 ml of sterile water (D10W). Administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia.
6. If no IV access available, administer GLUCAGON 1 mg IM.
7. Call for intercept per INTERCEPT CRITERIA.

ALS TREATMENT:

1. Continue ILS TREATMENT.
2. Consider SODIUM BICARBONATE 1 mEq/kg IV push and hyperventilation for suspected symptomatic overdose of the following drugs: Quinidine, Tricyclic antidepressants, Phenothiazines, Antihistamines, Beta blockers, Cocaine

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3. Medical Control may consider GLUCAGON 2mg IV or IM for Beta Blocker overdose.

***Intranasal medications must be administered through an atomizer;**
Maximum volume per nostril = 1 ml.

SEIZURE/STATUS EPILEPTICUS

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Assessment; include neurological exam and past seizure history.
3. Immobilize cervical spine if indicated.
4. Position patient to prevent injury.
5. If blood glucose < 60 mg/dl (or suspected) and patient is conscious with an intact gag reflex, administer one tube of ORAL GLUCOSE.
6. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or saline lock.
3. If seizure persists longer than three minutes, administer VERSED: IV: 0.05 mg/kg IV over 2 minutes (maximum dose 5 mg); may repeat x 1 after 5 minutes if seizure persists. IM: 0.1 mg/kg IM (maximum dose 10 mg) IN: 10 mg IN (max. 1 ml per nostril) (Need to use 10mg/2ml concentration)
4. If blood sugar < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
5. Alternative medication: 10% DEXTROSE in 250 ml of sterile water (D10W). Administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia.
6. If no IV access is available, administer GLUCAGON 1 mg IM.

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7. If seizure persists, contact Medical Control for additional VERSED.

SEPSIS

CRITERIA (Must meet the following):

1. Age > 18 years
2. NOT Pregnant
3. History suggestive of infection or currently being treated for infection:
   a. Pneumonia (cough, shortness of breath)
   b. UTI (indwelling foley catheter, suprapubic catheter, etc)
   c. Abdominal Pain, Diarrhea
   d. Wound/Skin Infection e. Infected indwelling device (central line, port, etc)
   f. Recent Hospitalization and/or Surgery
   g. Immunocompromised
   h. Resident of Long Term Care Facility or Skilled Nursing Facility
4. At least TWO of the following criteria (new to patient): a. Temperature > 38°C (100.4°F) or < 36°C (96°F) b. Heart Rate > 90 c. Respiratory Rate > 20 d. Altered Mental Status
5. Hypoperfusion as manifested by ONE of the following: a. Manual SBP < 90; MAP < 65 b. SpO2 < 90

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE
   a. Check blood glucose level. If blood glucose < 60 mg/dl refer to DIABETIC EMERGENCIES Protocol for treatment.
2. Administer OXYGEN at 15 lpm by non-rebreather mask
3. Call for intercept per INTERCEPT CRITERIA.
4. Reassess patient and vital signs every 5 minutes

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT
2. Notify receiving hospital of “SEPSIS ALERT”
3. Consider 12-Lead EKG
4. Establish at least one large bore IV a. Administer 20ml/kg NS fluid bolus (Document TOTAL amount of IVF given)
   i. Reassess after each 250ml increment and STOP fluids if signs of pulmonary edema (increasing shortness of breath or rales/crackles on lung exam)
   ii. May repeat to maintain SBP > 90 or MAP > 65 as long as pulmonary edema is not suspected.
   iii. Total amount of IVF should not exceed 2000 mL 5. Continue to reassess patient including vital signs (manual BP), breath sounds, capnography (< 25 mmHg indicative of severe sepsis), cardiac monitor.

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6. Medical Control may consider DOPAMINE infusion if SBP < 90 or MAP < 65 despite adequate fluid resuscitation.

SHOCK (NOT FROM TRAUMA)

CRITERIA:

1. Signs and symptoms of shock, including:
    a. SBP < 90 or MAP < 65.
    b. Pale, cool and clammy skin
    c. Rapid, thready pulse
    d. Rapid or shallow breathing
2. Associated MEDICAL complaint, may include:
    a. Severe vomiting or diarrhea
    b. Dehydration
    c. GI bleeding
    d. Sepsis – Refer to SEPSIS Protocol

EXCLUSIONS:

1. Pregnancy
2. Pulmonary Edema

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Keep patient warm and elevate feet.
3. Call for intercept per INTERCEPT CRITERIA.

ILS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. Administer 20 ml/kg NS fluid bolus. May repeat fluid bolus as needed to maintain SBP of 90-100 as long as lungs remain clear.
3. After 2 liters of NS have been administered consider switching to LR.
4. Call for intercept per INTERCEPT CRITERIA

ALS TREATMENT:

1. Continue ILS TREATMENT.
2. Consider DOPAMINE at 5mcg/kg/min titrated to a SBP of 90-100 or MAP > 65 for hypotension not responsive to fluid bolus.
    a. See Dopamine Drip Chart

***Dopamine is provided premixed (400mg in 250mL D5W or 800mg in 500mL D5W). This yields a concentration of 1600mcg/mL.*

STROKE

NOTE: Do not treat hypertension in a patient with suspected acute stroke.

CRITERIA:

1. Signs or symptoms of acute stroke, including:
   a. Unilateral paralysis or paresthesia
   b. Unilateral pronator drift
   c. Unilateral facial droop
   d. Speech disturbances
   e. Monocular blindness
2. Acute onset of above signs/symptoms with previous medical history of:
   a. TIA
   b. CVA
   c. Hypertension
   d. Cardiac disease
   e. Sickle cell anemia

EXCLUSIONS:

1. Unresponsive
2. SBP < 90

FR/BLS TREATMENT:

1. INITIAL MEDICAL CARE.
2. Perform F.A.S.T. stroke screen.
3. If blood glucose < 60 mg/dl and patient is responsive with a good gag reflex, administer one tube of ORAL GLUCOSE.
4. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue FR/BLS TREATMENT.
2. IV NS KVO or saline lock.
3. If blood sugar < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
4. Alternative medication: 10% DEXTROSE in 250 ml of sterile water (D10W). Administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia. 5. If no IV access is available, administer GLUCAGON 1 mg IM.

F.A.S.T. Stroke Screen

Patient Name:	Age:	Date of Birth:

Information Obtained From:

- ☐ Patient
- ☐ Family: _____
- θ Other: _____

Pertinent History/Symptoms:

- ☐ Fall/Head Trauma @ onset θ Seizure @ onset
- ☐ Headache, Nausea/Vomiting, Neck Pain
- ☐ Patient taking Blood Thinner (i.e. Coumadin)
- ☐ Previous TIA/Stroke/Head Injury

Ambulatory prior to incident? θ Yes θ No

Ambulatory at this time? θ Yes θ No

Screening Criteria: (✓ Check if *Abnormal)

☐ F *(Face)*

Facial Droop: Have patient smile or show teeth. (Look for asymmetry)

- ☐ ***Normal:*** Both sides of the face move equally or not at all
- ☐ ****Abnormal:*** One side of the patient's face droops

☐ A *(Arm)*

Motor Weakness: Arm drift (Close eyes, extend arms, palms up)

- ☐ ***Normal:*** Remain extended equally, or drifts equally or does not move at all
- ☐ ****Abnormal:*** One arm drifts down when compared with the other

☐ S *(Speech)*

"You can't teach an old dog new tricks" (Repeat phrase)

- ☐ ***Normal:*** Phrase is repeated clearly and correctly
- ☐ ****Abnormal:*** Words are slurred (dysarthria) or abnormal (aphasia) or none

☐ T *(Time of onset)*

Last seen normal: Time:_____ Date:_____

Evaluation: Sp02: _____% RA Glucose: _____ mg/dl Approx. weight: -_____

Vital Signs: BP _____ Pulse ____ Resp. _____Cardiac Rhythm _____

- ☐ Afib
- ☐ Aflutter

If any ***ONE*** of the boxes (F,A,S) are checked, then the

STROKE SCREEN is **POSITIVE**

Notify Receiving Facility and Transport Immediately.

Include TIME of ONSET in Report

SYNCOPE

CRITERIA:

1. SBP > 90
2. Transient or near loss of consciousness with current normal LOC.

EXCLUSION:

1. SBP < 90
2. Other serious signs or symptoms, such as:
   a. Chest pain
   b. Respiratory difficulty
   c. Acute suspected CVA
3. Altered LOC
4. Seizure
5. Trauma
6. Heart rate <60 or >140

FR/BLS TREATMENT:

1. **INITIAL MEDICAL CARE**.
2. If blood glucose < 60 mg/dl (or suspected) **and** patient is responsive with a good gag reflex, administer one tube of ORAL GLUCOSE.
3. BLS only. Obtain 12-lead ECG and transmit to receiving facility(if available).
5. Call for intercept per INTERCEPT CRITERIA.

ILS/ALS TREATMENT:

1. Continue **FR/BLS TREATMENT**.
2. Obtain 12-Lead EKG a. Transmit to Receiving Facility if abnormal (if available).
3. IV NS KVO or saline lock.
4. Monitor for dysrhythmias closely. If dysrhythmia present, follow appropriate dysrhythmia protocol.
5. If blood glucose < 60 mg/dl, administer DEXTROSE 50% 25 g IV.
6. **Alternative medication:** 10% DEXTROSE in 250 ml of sterile water (D10W). Administer in 50 ml (5g) IV aliquots until mental status normalizes. Repeat blood glucose. Consider repeating the dose if blood glucose is less than 60 with symptoms of hypoglycemia.
7. If no IV access available, administer GLUCAGON 1 mg IM.

Appendix

DOPAMINE DRIP CHART

Dopamine is provided premixed (400mg in 250mL D5W or 800mg in 500mL D5W).
This yields a concentration of 1600mcg/mL.

Dosage mcg/kg/min	1	1.5	2	2.5	3	3.5	4	5	6	7	8	9	10	15	20
Body weight (lbs & kg)	FLOW RATE IN ML/HR (In the absence of an IV pump, use minidrip tubing and ml/hr = drops/minute)														
22lb/10kg	1	1	1	1	1	1	2	2	2	3	3	3	4	6	8
33lb/15kg	1	1	1	2	2	2	2	3	3	4	5	5	6	8	11
44lb/20kg	1	1	2	2	2	3	3	4	5	5	6	7	8	11	15
55lb/25kg	1	1	2	2	3	3	4	5	6	7	8	8	9	14	19
66lb/30kg	1	2	2	3	3	4	5	6	7	8	9	10	11	17	23
77lb/35kg	1	2	3	3	4	5	5	7	8	9	11	12	13	20	26
88lbs/40kg	2	2	3	4	5	5	6	8	9	11	12	14	15	23	30
99lbs/45kg	2	3	3	4	5	6	7	8	10	12	14	15	17	25	34
110lbs/50kg	2	3	4	5	6	7	8	9	11	13	15	17	19	28	38
121lbs/55kg	2	3	4	5	6	7	8	10	12	14	17	19	21	31	41
132lbs/60kg	2	3	5	6	7	8	9	11	14	16	18	20	23	34	45
143lbs/65kg	2	4	5	6	7	9	10	12	15	17	20	22	24	37	49
154lbs/70kg	3	4	5	7	8	9	11	13	16	18	21	24	26	39	53
165lbs/75kg	3	4	6	7	8	10	11	14	17	20	23	25	28	42	56
176lbs/80kg	3	5	6	8	9	11	12	15	18	21	24	27	30	45	60
187lbs/85kg	3	5	6	8	10	11	13	16	19	22	26	29	32	48	64
198lbs/90kg	3	5	7	8	10	12	14	17	20	24	27	30	34	51	68
209lbs/95kg	4	5	7	9	11	12	14	18	21	25	29	32	36	53	71
220lbs/100kg	4	6	8	9	11	13	15	19	23	26	30	34	38	56	75
231lbs/105kg	4	6	8	10	12	14	16	20	24	28	32	35	39	59	79
242lbs/110kg	4	6	8	10	12	14	17	21	25	29	33	37	41	62	83
253lbs/115kg	4	6	9	11	13	15	17	22	26	30	35	39	43	65	86
264lbs/120kg	5	7	9	11	14	16	18	23	27	32	36	41	45	68	90