OXYGEN ADMINISTRATION

Indication:

- Individual appears short of breath
  - Altered mental status, restlessness, blueish color to lips or nailbeds
- Individual complains of difficulty breathing
- Individual is breathing < 12 or > 20 times per minute

Standing Order:

1. Confirm oxygen tank and regulator are in working order and that tank has an adequate oxygen supply. Regulatory must have a pressure gauge and functioning flow meter.

2. Confirm 9-1-1 has been activated.

3. Use personal protective equipment (gloves).

4. Administer oxygen by nasal cannula at 6 liters per minute or 10 liters by mask, as tolerated by patient.

5. Report administration and response to EMS personnel for documentation in the EMS Patient Care Record.

6. Complete patient encounter report per agency protocol.

Note:

1. Do not use oxygen around flames, cigarettes or sparks because of fire risk.

2. Do not leave cylinders in a non-secured upright position because they can fall and damage the regulator or valve.
AUTOMATED EXTERNAL DEFIBRILLATION (AED)

Application: Applies to Public Safety First Responders (law enforcement, lifeguard, park rangers, environmental health) with an OCEMS-approved AED program

Indications:
1. Cardiac arrest of suspected medical origin in patients greater than or equal to 8 years old and greater than or equal to 55 pounds.
2. Use in children aged 1 to 8 years or less than 55 pounds is permitted if the AED has been approved by the AED manufacturer for use in this age group.

Contraindications:
1. Unsafe scene
2. Water on scene that may allow AED to arc to responders

Standing Order:
Upon arrival, verify unconsciousness, assess respirations, and verify pulselessness.
1. Initiate CPR.
2. Activate 9-1-1 system if not already done.
3. Apply AED as soon as device is available.
5. Follow manufacturer’s recommendations for application and use of the AED device.

Notes:
- If on arrival, there is a private citizen applied AED in place:
  o Continue CPR and minimize peri-shock pause. Repeat shock as indicated.
- Delayed ambulance and paramedic arrival:
  o Continue CPR and re-analyze every 2-3 minutes or as prompted by the AED and deliver shocks as indicated. Minimize peri-shock pause.

Special Situations:
- Transdermal Medication Patches:
  o Remove the patch and wipe the area to prevent arcing / sparking or burns if the electrical current should pass through the patch.
- Surgically implanted devices (Pacemakers, implantable defibrillators):
  o Avoid placing electrodes over or near these devices, which can be damaged, or can absorb or reflect energy, thereby decreasing the chance of a successful defibrillation.
AUTOMATED EXTERNAL DEFIBRILLATION (AED)

- If a patient is wearing a LifeVest® wearable defibrillator:
  - Proceed with standard evaluation and treatment measures.
  - CPR can be performed as long as the device is not broadcasting “press the response buttons,” or “electrical shock possible, do not touch patient,” or “bystanders do not interfere.”
  - If AED is available, disconnect the LifeVest® battery and remove the LifeVest® and treat the patient with the AED.
  - To remove the LifeVest®, first pull out and disconnect the battery, then remove the garment from the patient.
  - ALS should take the vest, modem, charger, and any extra batteries to the hospital.

- Follow safe practice guidelines:
  - Do not defibrillate patients in water
  - Assure no one is touching the patient during machine analysis or defibrillation.

- Documentation:
  - The first responder agency must retain the electronic data of the AED use.
  - Notify OCEMS of AED use (form available on OCEMS website)
NALOXONE ADMINISTRATION

BLS STANDING ORDERS:

1. Confirm ALS is enroute.

2. Identify patient as suspected narcotic overdose:
   - Suspected narcotic overdose by history and environment, AND
   - Victim is poorly responsive and respiratory rate appears slow or shallow; or victim is unresponsive and not breathing.

2. Use personal protective equipment (gloves, face shield).

3. Stimulate victim to determine if the person will awaken. If required, start CPR.

4. If no response to stimulation but pulse is present and continued poor breathing, administer:

   NARCAN™ Nasal Spray 4 mg preloaded single dose device
   - Administer full dose in one nostril
   - If partial response in breathing or consciousness, repeat 4 mg preloaded single dose administration in nostril opposite to first dose.

   OR

   Naloxone (generic):
   - Assemble 2 mg naloxone in syringe and atomizer
   - Administer 1 mg into each nostril (1/2 total dose into each nostril)
   - If partial response in breathing or consciousness, repeat 2 mg, 1 mg into each nostril.

5. After naloxone administration, observe for improved breathing and consciousness, if breathing or consciousness do not improve, assist breathing with bag-valve-mask or begin CPR if appropriate.

6. If responds to naloxone, be alert for sudden, agitated behavior or symptoms of opioid withdrawal, such as vomiting, abdominal cramps, or sweating.

7. If CPR not necessary and it is possible, place patient in left lateral position to avoid aspiration.

8. Prepare patient for transport, protect airway as possible, and await ALS personnel.
The Pediatric Assessment Triangle (PAT) may be useful in the primary survey of children, especially those under the age of 5. Using only visual and auditory clues, the PAT reflects the child's overall physiologic status.

1. Appearance
2. Work of breathing
3. Circulation to skin / skin color

The mnemonic "TICLS" summarizes the characteristics of appearance:

T  Muscle tone
I  Interaction
C  Consolable
L  Look / Gaze
S  Speech/ Cry

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GLASGOW COMA SCALE (SCORE)

<table>
<thead>
<tr>
<th>Eye opening</th>
<th>Score</th>
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<tbody>
<tr>
<td>spontaneously</td>
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<tr>
<td>to speech</td>
<td>3</td>
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<tr>
<td>to pain</td>
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<tr>
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<table>
<thead>
<tr>
<th>Verbal response</th>
<th>Score</th>
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<tbody>
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<tr>
<td>incomprehensible</td>
<td>2</td>
</tr>
<tr>
<td>none</td>
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<table>
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<tr>
<th>Motor response</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>obeys commands</td>
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<tr>
<td>localises to pain</td>
<td>5</td>
</tr>
<tr>
<td>withdraws from pain</td>
<td>4</td>
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<tr>
<td>flexion to pain</td>
<td>3</td>
</tr>
<tr>
<td>extension to pain</td>
<td>2</td>
</tr>
<tr>
<td>none</td>
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</tr>
</tbody>
</table>

Maximun score 15

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It is preferred that the Glasgow Coma Scale (Score) or GCS be given in sequence by category; for example a normal GCS would be 4-5-6 (total = 15)

Total Score of 15 = Normal
Total Score of 13 = Trauma triage criteria met
Total Score of 8 = Coma
Total Score of 3 = Lowest score possible
EPINEPHRINE AUTO-INJECTOR

INDICATIONS:
Signs and symptoms of a severe allergic reaction (e.g. rash, itching, facial/neck/tongue swelling, wheezing, shortness of breath, hypotension).

CONTRAINDICATIONS:
- Chest pain
- Hypertension

EQUIPMENT:
- Personal protective equipment (PPE) appropriate for potential blood exposure
- Appropriate sharps disposal container
- Epinephrine auto-injector
- Oxygen delivery equipment

PROCEDURE:
- Use PPE for blood exposure
- Obtain epinephrine auto-injector to ensure that:
  - The auto-injector medication has not expired and the visible medication is clear
  - The auto-injector is the correct dosage for the patient
    - 0.3 mg epinephrine for adult patients
    - 0.15mg epinephrine for pediatric patients <12 years-old
- Remove the safety cap from the auto-injector
- Place the tip of the auto-injector on the mid-anterior lateral area of the patient’s thigh, midway between the groin area and the knee (may place over clothing)
- Push the auto-injector against the thigh until you hear an audible click
- Hold the auto-injector in place until all of the medication is administered (about 10 seconds)
- Dispose of auto-injector in an appropriate sharps disposal container
- Reassess patient for improvement of symptoms
- Reassess vital signs

DOCUMENTATION:
- Time of administration of epinephrine auto injector
- Dosage administered
- Patient’s response to treatment and repeat vital signs

NOTES:
- Any patient receiving epinephrine by auto-injector pen must be upgraded to an ALS response
- Administering epinephrine auto-injector may be done while awaiting incoming ALS response
GLUCOMETER

INDICATIONS:
- Altered mental status and/or neurological dysfunction
- Known diabetic with confusion, weakness, tachycardia, or flushing

CONTRAINDICATIONS:
- Possible skin infection present at sample site

EQUIPMENT:
- FDA approved glucometer with test strips
- Appropriate cleansing wipes, such as an alcohol swab
- Sterile 2 X 2 or 4 X 4 gauze
- Sterile lancets
- Small clean or sterile bandage or Band-Aid
- Appropriate sharps disposal container

PROCEDURE:
1. Use appropriate PPE for blood exposure
2. Prepare sample site (side of fingertip pad or lateral side of heel of infant) with appropriate cleansing wipe and allow to air dry
3. Remove a new test strip from container and insert in the glucometer per manufacturer’s guidelines – assure the code on the glucometer LED screen matches the test strip vial
4. Grasp the finger near the prepared site, keeping the site below the level of the heart if possible. Using the lancet, quickly prick the side of the finger or heel until a drop of blood is formed. Wipe away the first drop of blood with gauze and allow the puncture site to form a second blood drop. Place the second blood drop onto the test strip in the glucometer per manufacturer’s guidelines
5. Cover patient sample site with a sterile bandage or Band-Aid
6. When blood glucose value is displayed, record and document the value
7. Dispose of the lancet in an approved sharps disposal container and the test strip into a biohazard container

DOCUMENTATION:
- Time blood glucose value was obtained
- Blood glucose value

NOTES:
- Do not obtain blood samples from bleeding wounds or blood from the nose, ears or mouth
- Follow the glucometer manufacturer’s guidelines regarding calibration and cleaning
- Assure that the test strips remain in an airtight container and are not expired
- Any patient that requires glucose administration must be upgraded to an ALS response

Approved:

Reviewed: N/A
Final Date for Implementation: 10/01/2017
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