

# SPEMS SKILLS PROFICIENCY CRITERIA

### **Paramedic**



The following skills are required at the Paramedic Level:

- 1. King Airway
- 2. IV
- 3. Endotracheal Intubation
- 4. Adult EZ IO
- 5. Pedi EZ IO
- 6. Pleural Decompression
- 7. Defibrillation
- 8. Needle cricothyrotomy
- 9. Surgical cricothyrotomy

The following criteria will be used for all SPEMS Protocol required skills proficiency evaluations at the Paramedic Level.

## **King Airway Device**

- 1. Assures proper pre-oxygenation
  - Ventilates at 10-12 breaths per minute for adult or 12-20 for child with BVM attached to oxygen at 10-15lpm
- 2. Selects/Prepares equipment
  - Selects proper size based on patient's height
  - Securing device/tape
  - Proper size syringe
  - Assure no air leaks by testing cuffs
  - Lubricates distal tip
- 3. Performs tongue-jaw lift
- 4. Inserts to proper depth
  - Does not force
  - Advances until base of connector aligns with teeth or gums
  - Inflates cuff based on listed volumes for the tube size
  - Attach BVM and ventilates patient
  - If ventilation is difficult, pull device out very slightly until ventilation is performed easily
- 5. Verifies proper tube placement
  - Rise and fall of chest
  - Bilateral breath sounds
  - Absent epigastric sounds
- 6. Secures tube
- 7. Ventilates at appropriate rate of 10-12 breaths per minute for adult or 12-20 for child

## **IV** Therapy

- 1. Prepares Equipment
  - Appropriate IV fluid
  - Administration set
  - IV catheters
  - Alcohol prep
  - Tape or other securing device
  - Sharps container
  - Tourniquet
- 2. Checks fluid for expiration date and clarity
- 3. Properly connects administration set to IV bag
- 4. Fills drip chamber to proper level
- 5. Flushes tubing to expel air
- 6. Locates appropriate vein
- 7. Applies tourniquet
- 8. Cleanses skin
- 9. Performs venipuncture
  - Inserts at proper angle
  - Notes flashback
  - Occludes vein proximal to catheter
  - Removes stylet
  - Connects tubing to catheter
- 10. Disposes of needle in proper container
- 11. Releases tourniquet
- 12. Runs IV fluid briefly while monitoring for signs of infiltration
- 13. Secures catheter
- 14. Adjusts to appropriate flow rate

## **Endotracheal Intubation**

- 1. Assures proper pre-oxygenation
  - Ventilates at 10-12 breaths per minute for adult or 12-20 for infant or child with BVM attached to oxygen at 10-15lpm
- 2. Selects/Prepares equipment
  - Proper size tube
  - Laryngoscope and blade with properly functioning light
  - Stylet
  - 10cc syringe
  - Securing device/tape
- 3. Checks cuff for leak
- 4. Performs procedure
  - Positions head properly
  - Inserts blade while displacing tongue
  - Elevates mandible with laryngoscope
  - Introduces ET tube between vocal cords and advances to proper depth
  - Inflates cuff to proper pressure and disconnects syringe
  - Ventilates patient
- 5. Verifies proper tube placement
  - Rise and fall of chest
  - Bilateral breath sounds
  - Absent epigastric sounds
  - Capnography device
- 6. Secures tube
- 7. Ventilates at appropriate rate of 10-12 breaths per minute for adult or 12-20 for infant or child

#### **EZ IO (Adult and Pediatric)**

- 1. Prepares Equipment
  - Appropriate IV fluid
  - Administration set
  - EZ IO driver
  - Appropriately sized EZ IO catheter and extension set
  - EZ IO Stabilizer or bulky dressing/tape to secure catheter
  - Sharps container
  - Alcohol preps or betadine cleaning swabs
  - Syringe with saline flush solution
- 2. Checks fluid for expiration date and clarity
- 3. Properly connects administration set to IV bag
- 4. Fills drip chamber to proper level
- 5. Flushes tubing to expel air
- 6. Identifies appropriate anatomical site for IO puncture
- 7. Cleanses site appropriately with alcohol or betadine
- 8. Performs IO puncture
  - Stabilizes area without placing hand under puncture site
  - Inserts needle at proper angle (90°)
  - Powers driver with direct pressure until "pop" is felt or a sudden lack of resistance occurs
  - Removes stylet and dispose into sharps container
- 9. Attaches syringe and extension set to IO needle and flushes slowly with saline solution while monitoring for signs of infiltration
- 10. Connects IV tubing
- 11. Adjusts flow as required (Attaches pressure bag as needed)
- 12. Secures needle with EZ IO stabilizer or with bulky dressings and tape

## **Pleural Decompression**

- 1. Manages patient's airway with basic and/or ALS procedures
- 2. Recognizes need for pleural decompression
  - Absent lung sounds on affected side
  - Hollow sound when percussed
  - Possible tracheal deviation away from affected side (late sign)
- 3. Prepares Equipment
  - 14ga X 2" (or longer) IV catheter
  - Antiseptic solution (alcohol or betadine)
  - 4 X 4's
  - Tape
- 4. Locates appropriate site at the  $2^{nd}$  or  $3^{rd}$  intercostal space on the midclavicular line
- 5. Cleanses site appropriately
- 6. Inserts catheter over the top of the rib
- 7. Listens for rush of air
- 8. Removes needle leaving catheter in place and leaves catheter hub open
- 9. Disposes of needle in sharps container
- 10. Stabilizes the catheter hub as needed with 4 X 4's and tape
- 11. Continually reassess adequacy of ventilation, lung sounds, and tracheal position

## **Defibrillation**

- 1. Checks patient's responsiveness
- 2. Assess for breathing and carotid pulse (no more than 10 seconds)
- 3. Immediately begins chest compressions
- 4. Performs 2 minutes of high quality CPR
  - If witnessed arrest, defibrillation should occur as soon as possible but CPR should continue until defibrillator is properly applied
  - Rate between 100 and 120
  - Correct depth (at least 2" but not greater than 2.4")
  - Compression to ventilation ratio of 30:2
  - Adequate volume for each breath (visible rise in chest)
  - Minimal interruption of less than 10 seconds throughout
- 5. Correctly attaches defibrillation pads to patient
- 6. Stops CPR and verifies V-fib or pulseless V-tach
- 7. Ensures all personnel are clear of the patient
- 8. Delivers shock(s) per manufacturer's recommendations
- 9. Immediately resumes CPR

# **Needle Cricothyrotomy**

- 1. Selects/Prepares equipment
  - BVM
  - Large bore IV catheter
  - 10 or 20cc syringe
  - 3.0 ET tube adapter
  - Antiseptic solution (alcohol or betadine)
  - Tape or other securing device
- 2. Places patient in supine position and hyperextend the head/neck (neutral position if cervical spine injury is suspected)
- 3. Palpates neck locating the cricothyroid membrane (between the thyroid and cricoid cartilages)
- 4. Cleanses site
- 5. Stabilizes the site and inserts needle through cricothyroid membrane at midline directing at a 45° angle towards the chest
- 6. Aspirates syringe to confirm placement in trachea
- 7. Advances catheter while stabilizing needle
- 8. Removes needle and disposes in sharps container
- 9. Attaches 3.0 ET tube adapter to catheter and connects BVM and begins ventilation
- 10. Secures catheter with tape or other securing device
- 11. Observes for chest rise and auscultates lungs to assess adequacy of ventilation
- 12. Continues ventilation while constantly monitoring effectiveness

# **Surgical Cricothyrotomy**

- 1. Selects/Prepares equipment
  - BVM
  - Scalpel
  - Hemostat
  - Gauze pads
  - Betadine antiseptic solution
  - Tape or other securing device
  - Appropriate size cuffed ETT tube with stylet
  - 10cc syringe
- 2. Places patient in supine position and hyperextend the head/neck (neutral position if cervical spine injury is suspected)
- 3. Palpates neck locating the cricothyroid membrane (between the thyroid and cricoid cartilages)
- 4. Cleanses site
- 5. Stabilizes the site while using a scalpel to make a 1 to 2 centimeter vertical incision through the skin over the membrane
- 6. Stretch skin from incision and visualize the cricothyroid membrane
- 7. Makes a 1 centimeter incision in the horizontal plane through the membrane
- 8. Inserts hemostats into the membrane and spreads it open
- 9. Inserts a proper sized cuffed ET tube into the trachea advancing toward the chest until cuff is fully into trachea. Use of stylet may be required
- 10. Inflate the cuff
- 11. Confirm placement by visualizing chest rise, auscultation of bilateral breath sounds and capnography
- 12. Secures tube with tape or other securing device
- 13. Continues ventilation while constantly monitoring effectiveness