State of Wisconsin

EMS Skills and Procedures Manual

Emergency Medical Responder

Emergency Medical Technician

Advanced Emergency Medical Technician

Paramedic

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Many thanks to the following people
for their contributions to the creation of this manual:

Ken Bartz, BS, AEMT - EMS Instructor Coordinator - Southwest Wisconsin Technical College

Jason Baumgartner, NRP, RN - Nicolet Area Technical College

Andrew Baus, BS, NRP - Moraine Park Technical College

Kelly Bechel, CCP - EMS Division Chief - South Area Fire District

Arleen Case, Support Specialist - Wisconsin Technical College System

Ryan Huser MA, NRP, CCP - Mid-State Technical College

Jason Joling, EMS Division Chief - Wisconsin Rapids Fire Department

Keith Melvin, NRP, CCP - Mid-State Technical College

Helen Pullen, EMS Licensing Coordinator - WI DHS-EMS Section

Timothy Weir, LP - Education Director - Wisconsin Technical College System

EMS Skills and Procedures Manual

These skills and procedures are from the State of Wisconsin EMS Scope of Practice and not intended to reflect the complete document, rather the skills and procedures most commonly used by our EMS providers. Those not listed can be found in other EMS resource documents approved by DHS-EMS, such as AHA programs like ACLS, BLS and PALS or other the validated EMS sources.

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Airway - BVM with Oropharyngeal Airway

Objective(s)

1. To facilitate the patency of a patient's airway using basic airway adjuncts

Equipment Needed

- Airway simulator
- BVM
- Oropharyngeal airway
- Oxygen tank with regulator

Steps in Skill/Assessment

1. Checks responsiveness
2. Checks breathing and pulse simultaneously
3. Attaches BVM to oxygen tank using high flow oxygen
4. Initiates ventilations with BVM at a rate of 10 - 12/minute (1 ventilation every 5 - 6 seconds) as guided by current BLS standards
5. Ensures proper seal with visualization of chest rise and fall
6. Select airway by measuring from the corner of the patient's lips to the bottom of the earlobe or center of the mouth to angle of the jaw
7. Open mouth using manual technique
8. Insert airway
    a. Adult - with tip pointing toward roof of mouth, insert airway until point touches soft palette, rotate 180 degrees into position with flange resting against lips or teeth
    b. Adult, child or infant - Using a tongue depressor or similar device, move the patient's tongue forward and down. Insert airway in anatomical position to follow the normal curvature of the oropharynx until the flange rests against the lips or teeth
9. Check for adequate air exchange by auscultating lungs bilaterally

Critical Criteria

- Fails to administer oxygen as appropriate
- Fails to provide ventilations with BVM at a rate of 10 - 12/minute (1 ventilation every 5 - 6 seconds) as guided by current BLS standards
- Fails to properly size the oropharyngeal airway
- Uses improper technique for insertion

Precautions/Comments

- Always measure airway. Use jaw thrust without head tilt for patients with possible cervical spine injury
- Tongue depressor or similar device may be used to ease insertion
- Only to be used on patients without a gag reflex

Airway - BVM with Nasopharyngeal Airway

Objective(s)

1. To facilitate the patency of a patient's airway using basic airway adjuncts

Equipment Needed

- Airway simulator
- BVM
- Nasopharyngeal airway
- Lubricant
- Oxygen tank with regulator

Steps in Skill/Assessment

1. Check responsiveness
2. Check breathing and pulse simultaneously
3. Attach BVM to oxygen tank using high flow oxygen
4. Initiate ventilations with BVM at a rate of 10 - 12/minute (1 ventilation every 5 - 6 seconds) as guided by current BLS standards
5. Ensure proper seal with visualization of chest rise and fall
6. Visualize the nares and select a nasopharyngeal airway slightly smaller in diameter than the patient's largest nare
7. Size the device by measuring from the tip of the patient's nose to the tip of the earlobe or angle of the jaw
8. Lubricate the distal surface of the airway with water or a water-soluble lubricant, being careful not to occlude the opening with lubricant
9. Insert the airway into the nare
    a. When placed into the nare, insert following the normal anatomical curvature of the nasopharynx. Direct it along the floor of the nose and into the oropharynx according to current standards
10. Check for adequate air exchange by auscultating lungs bilaterally

Critical Criteria

- Fails to administer oxygen as appropriate
- Fails to provide ventilations with BVM at a rate of 10 - 12/minute (1 ventilation every 5 - 6 seconds) as guided by current BLS standards
- Fails to properly size the nasopharyngeal
- Uses improper technique for insertion

Precautions/Comments

- If resistance is felt, stop and try other nare
- Do not use in patients under one (1) year of age

Airway - Non-Visualized Supraglottic Devices

Objective(s)

1. To facilitate the patency of a patient's airway using airway adjuncts

Equipment Needed

- Airway simulator
- BVM
- Oxygen tank and regulator
- Supraglottic device
- Lubricant
- Stethoscope

Steps in Skill/Assessment

- Opens the airway manually
- Elevates tongue, inserts simple adjunct (oropharyngeal or nasopharyngeal airway)
- Ventilates patient with BVM at rate of 10 - 12/minute (must ventilate within 30 seconds of start time)
- Verbalizes attachment of high-flow oxygen and continues ventilations for 30 seconds
- Directs assistant to ventilate patient
- Selects non-visualized airway device checks and prepares for insertion
- Places head in neutral position
- Performs tongue-jaw lift
- Inserts device to appropriate depth
- Secures device (inflates cuffs and removes syringe(s), if applicable)
- Confirm proper placement via auscultation and secondary confirmation as indicated
- Adjusts device to maximize effectiveness of ventilations
- Secures device in place, if applicable
- Continues ventilations

Critical Criteria

- Failure to oxygenate the patient prior to insertion of the device
- Uses improper insertion technique
- Fails to remove syringe immediately upon inflation of the cuff

Precautions/Comments

- Upper airway hematoma or esophageal rupture;
- Hemodynamic instability (hypotension and/or bradycardia), which can be minimized by avoiding over inflation of the cuffs
- Use appropriate as to patient's height and/or weight

Aerosolized/Nebulized Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Metered Dose Inhaler/Nebulizer Device
- Oxygen
- Desired medication
- Spacer device

Steps in Skill/Assessment

Metered Dosed Inhaler

1. Preparation
    a. Inspect the medication
    b. Shake the inhaler canister vigorously
    c. Wait 1 - 2 minutes between inhalations; shake canister before each inhalation
2. Administration
    a. Re-check six rights
    b. Verify the inhaler belongs to the patient
    c. Shake the inhaler canister vigorously
    d. Explain procedure to the patient:
        i. Forcibly exhale
        ii. Place lips around the inhaler with spacer (if spacer is required)
        iii. Activate inhaler while inhaling deeply
        iv. Hold breath as long as comfortably able
    e. Remove supplemental oxygen from the patient if needed for the medication administration
    f. Assist with medication administration as needed
    g. Replace oxygen and encourage patient to take several deep breaths
    h. Repeat steps c - g to obtain ordered dosage(s). Wait 1 - 2 minutes between inhalations

Nebulizer Device

1. Preparation
    a. Select a nebulizer delivery method based on the patient's ability to hold the device and coordinate inhalation and breathing technique
        i. If using the hand-held delivery, attach the reservoir hose and mouthpiece to opposite ends of the "T" fitting
        ii. If using a mask delivery, use a nebulizer mask or remove the reservoir bag and the one-way valves (flaps) from a non-rebreather mask
    b. Assemble the medication cup by screwing the top and bottom sections together. Most nebulizer medication cups must be kept upright to avoid spilling the medication
    c. Inspect the medication
    d. Place the ordered dose of medication(s) into the medication cup and attach it to the bottom of the "T" fitting or mask

e. Attach the oxygen tubing to the inlet port of the medication cup. Attach the other end to an oxygen source capable for delivering a 6 - lpm flow
f. Turn on oxygen and adjust flow for best results

2. Administration
   a. Assemble nebulizer delivery device as previously described in this section
   b. Explain procedure to the patient:
      i. Seal lips around the mouthpiece of the hand-held nebulizer or place mask on patient
      ii. Take slow breaths and inhale as deeply as possible
      iii. Hold breath as long as comfortably able, up to 10 seconds
      iv. Continue until the medication is gone; there is no misting
   c. Remove supplemental oxygen from patient
   d. Start nebulizer with oxygen at 6 - lpm adjust until it makes a fine mist. The mist should "disappear" with each breath. Much of the mist that can be seen is too large to be absorbed
   e. Encourage patient to take slow, deep breaths until the medicine is gone from the medication cup. As the medication is administered and the level drops in the medication cup, the cup may need to be tapped to deliver all the medication
   f. Replace supplemental oxygen when the treatment is completed

Critical Criteria

- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- A comprehensive assessment must be performed on all patients to whom medications will be administered to determine indication for medication, contraindication(s) for medication, appropriate dose for patient, and response to medication
- Documentation should include (per local protocol): medication, dose delivered, route, site/method, time given, physician ordering medication, and EMS provider delivering medication
- Non-intact packaging may indicate loss of sterility

Auto Injector Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Auto injector
- Alcohol prep(s)
- Manikin/patient

Steps in Skill/Assessment

1. Preparation
    a. Inspect the medication
    b. Never place your thumb or finger over the ends of the auto-injector
    c. Remove the safety cap only immediately before placing the device against the previously prepared injection site
    d. The medication is now ready to be administered
2. Administration
    a. Prepare medication as previously described in this section
    b. Re-check the six rights
    c. Select the vastus lateralis (lateral thigh) injection site
    d. Cleanse the injection site with alcohol prep or other suitable antiseptic swab in an outward circular motion for about 2 inches
    e. Grasp the auto-injector by wrapping fist around the unit; never place your thumb or finger over the ends of the auto-injector
    f. Place dispensing end of auto-injector against the prepared site on the lateral thigh at a 90-degree angle
    g. Stabilize the patient's leg to prevent pulling away
    h. Apply a gentle pressure against leg with auto-injector until it clicks
    i. Hold in place per manufacturer's recommendations before removing auto-injector
    j. Properly dispose of the auto-injector in an appropriate sharps' container
    k. Place a bandage over the injection site

Critical Criteria

- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- Maintain clean/sterile techniques throughout procedure as appropriate
- Always ensure that all sharps are properly disposed of in a timely manner in an approved sharps disposal container
- Assure the proposed site for injection is free of inflammation, swelling, infection and any skin lesions
- Allow alcohol to dry for 30 seconds for bacteria to be killed and to minimize discomfort of the injection
- Advise patient prior to injection

Endotracheal Tube (ET) Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- BVM
- Saline (0.9%)
- Desired medication

Steps in Skill/Assessment

1. Preparation
    a. Draw up medication to be given in a 10 ml syringe (see IM/IV medication preparation section)
        i. ET dose is usually 2 - 2.5 times the IV dose
        ii. Add sterile saline to make 10 ml
2. Administration
    a. Pre-oxygenate patient with bag-valve device prior to delivering medication
    b. Remove bag-valve device and instill medication into endotracheal tube. If using an ET tube with a medication port, the bag-valve device does not have to be removed
    c. Distribute medication with several positive-pressure ventilations prior to resuming normal ventilations with bag-valve device

Critical Criteria

- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- Follow manufacturer's recommendation for liter flow and assembly of equipment
- Only select medications can be delivered via endotracheal route
- Needles should be removed for medication instillation into the ET tube to prevent accidental puncture of the ET tube or loss of needle in the ET tube

Peripheral Intravenous (IV) Access

Objective(s)

1. Properly initiate intravenous access

Equipment Needed

- IV solution
- IV Tubing (may include extension set if saline lock is used)
- Appropriate size IV catheter
- SHARPS container
- IV start supplies

Steps in Skill/Assessment

1. Preparation
2. Select appropriate IV solution and Administration set (tubing)
3. Inspect IV solution for damage/contamination, etc.
4. Uncoil administration set and attach any adjunct device (extension set) if being used
5. Close clamp on administration set
6. Remove IV solution from package
7. While maintaining sterility, remove cap from tubing injection port on the bag and covering of the "spike" above the drip chamber
8. Attach the administration device to IV solution while using a twisting and pushing method until the "spike" punctures the seal of the port
9. Squeeze the drip chamber until it is approximately half full of solution
10. Open the clamp and properly prime IV tubing by ensuring tubing is full of solution and air has been expelled (some administration sets require removal of the protective cap, if cap is removed, ensure sterility and replace cap prior to initiating IV)
11. Once administration set is primed, close clamp and place tubing in a position for use
12. Prepare venipuncture supplies to include IV start set and IV needle
13. Select/clean venipuncture site
14. Apply tourniquet about 4 inches proximal to venipuncture site (no tourniquet for EJ)
15. Perform venipuncture using correct technique (angle, bevel position, etc.)
16. Advance catheter into vein from over needle
17. Occlude vein proximal to venipuncture site
18. Attach IV tubing and open nearest clamp
19. Assess IV for patency
20. Set desired flow rate

Critical Criteria

- Properly dispose of SHARPS
- Properly prime IV tubing
- Assure sterility of IV equipment
- Advancement of the catheter back onto the needle

Precautions/Comments

- If live patient simulation is utilized, ensure proper supervision is present.

Intraosseous (IO) Access

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Desired Medication
- Alcohol preps
- Syringe
- IV set
- IO administration/extension set
- Saline flush

Steps in Skill/Assessment

1. Preparation
2. Select appropriate IV solution and Administration set (tubing)
3. Inspect IV solution for damage/contamination, etc.
4. Uncoil administration set and attach any adjunct device (extension set) if being used
5. Close clamp on administration set
6. Remove IV solution from package
7. While maintaining sterility, remove cap from tubing injection port on the bag and covering of the "spike" above the drip chamber
8. Attach the administration device to IV solution while using a twisting and pushing method until the "spike" punctures the seal of the port
9. Squeeze the drip chamber until it is approximately half full of solution
10. Open the clamp and properly prime IV tubing by ensuring tubing is full of solution and air has been expelled (some administration sets require removal of the protective cap, if cap is removed, ensure sterility and replace cap prior to initiating IV)
11. Once administration set is primed, close clamp and place tubing in a position for use
12. Administration
    a. Select an intraosseous site as approved by local protocol and identify landmarks
        i. Proximal tibia
            A. Flex the knee slightly to facilitate landmarking; place padding behind the knee as necessary
            B. Palpate the tibial tuberosity, just below the knee
            C. Locate a consistent flat area of bone 2 - cm distally and 2 - cm medially to the tibial tuberosity (measurements vary by patient anatomy)
        ii. Distal tibia
            A. Slightly abduct and externally rotate the hip to expose the site; place padding as necessary
            B. Palpate the medial malleolus
            C. Move your finger about 3 - cm proximal and palpate the anterior and posterior borders of the tibia (measurements vary by patient anatomy)
            D. Insertion site is on the flat center aspect of the bone
        iii. Proximal humerus
            A. Position the patient so the arm is adducted (elbow close to the body)
    b. Flexed at the elbow with their palm against their abdomen
    c. With arm extended at side, rotate medially with thumb to the posterior

A. Slide your thumb up the anterior shaft of the humerus until greater tubercle is noted
B. Insertion site is approximately 1 cm above the greater tubercle (measurements vary by patient anatomy)

ii. Sternum
A. Position the patient to access the sternum
B. Commercial devices are used for this approach; follow manufacturer's directions for landmarking and insertion

iii. Choose an appropriately sized IO needle and prepare it for puncture. Some types of needles require adjustment for insertion depth; commercial devices should be prepared according to manufacturer's directions

iv. Consider using a local anesthetic prior to needle puncture, if patient condition and local protocol allows

v. Cleanse the intended puncture site with alcohol prep or other suitable antiseptic swab in an outward circular motion for at least 2 inches

vi. Stabilize insertion site with non-dominant hand; stabilizing hand must be placed to avoid accidental puncture

vii. Place needle against IO insertion site and insert needle at proper angle and direction
A. If using a commercial device, follow manufacturer's directions

viii. Remove the trocar; IO needle/catheter should stand up unsupported

ix. Attach the syringe with saline to the needle/catheter or an extension set with syringe (system should be flushed)

x. Inject fluid into the bone while watching for any signs of infiltration. If any signs of infiltration, swelling, or fluid leakage at the insertion site, remove the IO from bone and apply gentle pressure to insertion site

xi. When IO placement is verified, remove syringe and attach the IV tubing

xii. Open the IV flow clamp and observe the flow of IV fluid into the drip chamber

xiii. Secure the IO needle/catheter, supporting it as needed. Extremity may need to be secured to minimize movement (especially for proximal humeral placement)

xiv. Cover insertion site with a sterile dressing or commercially available device

xv. Secure the patient's extremity as appropriate to maintain flow

xvi. Adjust the flow rate by closing flow clamp or other flow-metering device to the appropriate setting

xvii. Continue to monitor the patient for:
A. Signs of a fluid overload
B. Other complications resulting from the IO placement
C. Appropriate flow rate
D. Infiltration

Critical Criteria

- Medication must be administered in compliance with local protocols and medical direction
- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- Assure the proposed site for cannulation is free of inflammation, swelling, infection and any skin lesions
- For IO insertion: landmarking correctly helps avoid piercing growth plate
- Aspiration for cloudy fluid is optional since lack of cloudy aspirate is not uncommon and does not mean improper placement
- If the IO does not flow, apply some pressure to the IV bag by squeezing it

Intravenous (IV)/Intraosseous (IO) Medication Administration

Objective(s)

1. Properly administer medication via the Intravenous or Intraosseous Route

Equipment Needed

- Medication (vial, ampule, pre-filled system)
- Small volume syringe (if using vial or ampule medication)
- Hypodermic Needle (if needed to withdraw medication from a vial)
- Filter Straw (if needed to withdraw ampule medication)
- Alcohol Pads or Anti-septic swab
- SHARPS container
- Properly pre-established IV/IO

Steps in Skill/Assessment

1. Explain risks/benefits of procedure to patient and obtain consent
2. Ensure the "six rights" of medication delivery
3. Ensure medication is within expiration and no evidence of contamination is present
4. Appropriately withdraw medication from container into syringe
5. Cleanse injection port with anti-septic pad
6. Attach syringe to IV tubing injection port
    a. Twist clockwise for a Luer Lock connection
    b. Insert blunt cannula for safety device equipped ports
    c. Insert needle through self-sealing port
7. Inject medication at proper rate
8. Disconnect syringe from medication injection port
9. Following medication administration, Flush the IV tubing slowly
    a. Bolus by flush syringe
    b. Open flow of IV
10. Properly dispose of SHARPS
11. Ensure proper flow of IV/IO
12. Monitor patient for effects of medication
13. Ensure proper documentation

Critical Criteria

- Ensure correct medication
- Properly inspect medication
- Properly dispose of SHARPS
- Properly withdraw medication to syringe

Precautions/Comments

- Ensure medication is properly labeled and packaged for simulation.

Enteral Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Desired Medication

Steps in Skill/Assessment

1. Preparation
    a. Tablets
        i. Inspect the medication
        ii. Obtain the proper dose
        iii. Re-check the label for proper medication and dosage information
        iv. Give directions to patient for medication administration
        v. The medication is now ready to be administered
    b. Sublingual spray
        i. Inspect the medication
        ii. Give directions to patient for medication administration
        iii. The medication is now ready to be administered
    c. Buccal (between cheek and gum):
        i. Inspect the medication
        ii. Buccal medication may be applied to a tongue depressor for administration
        iii. Give directions to patient for medication administration
        iv. The medication is now ready to be administered
2. Administration
    a. Re-check the six rights
    b. Explain procedure to the patient:
        i. Oral: Swallow the medication with a small amount of water
        ii. Chewed: Chew the medication and do not swallow for about 10 seconds
        iii. Sublingual: Place the medication under the tongue and do not swallow for 10 seconds
        iv. Sublingual spray: Spray under the tongue; be careful the patient does not inhale medication
        v. Buccal: Apply medication between patient's cheek and gum
    c. Give the medication to the patient to take or place medication in the patient's mouth
    d. Assure the medication is swallowed, chewed or dissolved
    e. Document medication administration
    f. Provide an ongoing assessment of your patient to identify any effects of the medication

Critical Criteria

- Medication must be administered in compliance with local protocols and medical direction
- A comprehensive assessment must be performed on all patients to whom medications will be administered to determine indication for medication, contraindication(s) for medication, appropriate dose for patient, and response to medication

- Before administering any medication, always be certain you have the “six rights:” the right patient, the right medication, the right dose, the right time, the right route, and the right documentation
- Non-intact packaging may indicate loss of sterility

Intranasal (IN) Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Desired Medication
- Syringe/Carpuject
- Atomizer

Steps in Skill/Assessment

1. Administration
    a. Explain procedure to patient
    b. Place atomizer within nostril
    c. Depress plunger quickly to administer medication
    d. If needed, switch nostrils to administer remaining dose if over 1ml
    e. Remove atomizer from nostril
    f. If patient sneezes, medication does not have to be repeated

Critical Criteria

- Medication must be administered in compliance with local protocols and medical direction
- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- Follow manufacturer's recommendation for liter flow and assembly of equipment
- Many IM/IV medications can be given via the intranasal route; follow local protocol for approved medications

Injectable Medication Preparation

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Desired Medication
- Alcohol preps
- Syringe/ Carpuject
- Needle

Steps in Skill/Assessment

1. Preparation
    a. Inspect the medication
    b. Select an appropriate size syringe for the medication to be delivered
    c. Remove the protective "flip off" cap from the top of the vial
    d. Wipe the rubber stopper with alcohol prep or another suitable antiseptic swab
    e. If reconstituting a medication:
        i. Pierce the center of the medication vial's stopper with the needle on the syringe of diluting solution
        ii. Inject diluting solution
        iii. Remove the needle/syringe from the vial
        iv. Gently shake the vial to assure the medication dissolves
        v. Continue with drawing up the medication with a new needle and syringe
    f. If drawing a medication or diluting solution from a vial:
        i. Draw up the same volume of air as the volume to be withdrawn
        ii. Pierce the center of the vial's stopper with the needle on the syringe
        iii. Inject air
        iv. Holding the vial upside down in one hand and being careful to keep the end of the needle within the fluid level of the vial, pull back gently on the plunger to draw the medication or diluting solution into the syringe
        v. Withdraw the needle and syringe from the vial
    g. Replace the needle with an appropriately sized safety engineered needle for subcutaneous or IM injections
        i. For patient comfort, change the needle prior to injection. Most needles have a fine silicon coating to facilitate easy entry into muscle mass which may be lost when drawing up the medication through a rubber stopper
        ii. Also, literature has shown some rubber stoppers contain trace amounts of latex that may cause a sensitivity reaction
        iii. Common practice is to use a larger needle for drawing up the drug, and a smaller needle for injecting
    h. With the needle pointing upward, gently tap the syringe to move any air bubbles to the top
    i. Gently depress the plunger of the syringe until air is expelled and only the desired amount of medication remains in the syringe
    j. The medication is now ready to be delivered
2. Syringe and ampule
    a. Inspect the medication

b. Select a syringe of appropriate size for the volume of medication to be delivered
c. Select a filter needle (also called a "filter straw") of appropriate size and length to withdraw the medication and attach to the syringe
d. Hold the ampule upright and gently "flick" it to move any medication trapped in the head of the ampule to the base
e. Wipe the area between the head and base of the ampule with an alcohol prep or other suitable antiseptic swab
f. Once the medication is removed from the head of the ampule, open the ampule by holding the ampule at arm's length and break by snapping the head toward you. This will cause any glass shards to be directed away rather than toward you when the ampule breaks
    i. Use a commercially available device or gauze square to grasp the head of the ampule when breaking the head from the base
    ii. If the ampule fails to break cleanly and glass shards can be observed, dispose of the ampule and replace with another
g. Using the filter needle and syringe, withdraw medication for administration. Discard any remaining medication and properly dispose of both portions of the ampule in a sharps container
h. Remove the filter needle used to withdraw the medication from the ampule and properly dispose of the filter needle in a sharps container
i. Replace the filter needle with an appropriate size safety engineered needle for subcutaneous or IM injections
j. With the needle pointing upward, gently tap the syringe to move any air bubbles to the top of the syringe
k. Gently depress the plunger of the syringe until air is expelled and only the desired amount of medication remains in the syringe
l. The medication is now ready to be delivered

3. Pre-loaded Syringes
    a. Prefilled systems
        i. Inspect the medication
        ii. Remove the protective caps from the medication cartridge and the barrel of the syringe assembly
        iii. Insert the medication cartridge into the barrel assembly and rotate clockwise until the medication cartridge is secure in the barrel. The medication cartridge is now the plunger
        iv. With the unit now fully assembled, remove the protector from the distal tip and gently depress the plunger until air is expelled and only the desired amount of medication remains in the syringe
        v. Attach an appropriately sized safety engineered needle for subcutaneous or IM injections
        vi. The medication is now ready to be delivered
    b. Syringe Cartridge System (e.g. Carpuject)
        i. Inspect the medication cartridge
        ii. Insert and secure the syringe cartridge into the cartridge holder following the manufacturer's directions
        iii. Attach an appropriately sized safety engineered needle for subcutaneous or IM injections

iv. With the unit now fully assembled, remove the protector from the distal tip and gently depress the plunger of the syringe until air is expelled and only the desired amount of medication remains in the syringe
v. The medication is now ready to be delivered Administration of injectable medications intramuscular injection

Critical Criteria

- Must be administered to comply with local protocols/medical direction
- Comprehensive assessment performed on patient medications will be administered
- Inspect for correct medication/dose/expiration date and contamination
- Always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation
- Document medication/dose/route, site/method/time/physician/EMS provider

Precautions/Comments

- Maintain clean/sterile techniques
- Utilize safety engineered devices to minimize risk of needle sticks
- Identify distal connection type for syringes and IV tubing
- Always ensure that all sharps are properly disposed of
- Route/size of patient are used to determine the appropriate size needle
- Prefilled systems may have an air bubble that will need to be purged
- Medications in vials/ampules require an extra draw to allow for waste
- Assess injection site for inflammation/swelling/infection or skin lesions
- Never recap used needles
- Allow alcohol to dry so bacteria to be killed and minimize discomfort
- Advise patient when making injection
- If blood is aspirated, withdraw the needle and discard

Intramuscular/Subcutaneous (IM/SQ) Injectable Medication Administration

Objective(s)

1. To prepare the appropriate delivery device for the purpose of administering medications

Equipment Needed

- Desired Medication
- Alcohol preps
- Syringe/ Carpuject
- Needle

Steps in Skill/Assessment

1. Administration
    a. Re-check the six rights
    b. Ensure the correctly sized safety needle is attached for administration route (not applicable for auto-injector)
    c. Select an injection site
        i. IM – deltoid or vastus lateralis (lateral thigh) and dorsal gluteal
        ii. SQ – abdomen, at or under the level of the belly button away from the navel or on the back/side of the upper arm
    d. After selecting the injection site, gently tap it to stimulate the nerve endings which will minimize pain when the needle is inserted. Using the stretch technique may accomplish this also
    e. Cleanse the injection site with alcohol prep or other suitable antiseptic swab in an outward circular motion for about 2 inches
    f. Hold the syringe in dominant hand and remove the needle cover
    g. Stabilize the injection site with your non-dominant hand using either the pinch or stretch technique
    h. Holding the syringe like a dart, quickly but not forcefully insert the needle into the injection site at a 90-degree angle until the proper depth is reached
    i. Release the skin while continuing to hold the syringe in place with the dominant hand
    j. Once the medication has been administered, withdraw the needle using appropriate safety features and/or activating the needle safety engineering device
    k. Cover the injection site with an alcohol or gauze pad and apply gentle pressure to the area to help reduce pain and improve absorption
    l. Properly dispose of the syringe and needle assembly in an appropriate SHARP's container
    m. Place a bandage over the injection site

Critical Criteria

- Medication must be administered in compliance with local protocols and medical direction
- Before administering any medication, always be certain you have the "six rights:" the right patient, the right medication, the right dose, the right time, the right route, and the right documentation

Precautions/Comments

- Maintain clean/sterile techniques throughout procedure as appropriate
- Utilize safety engineered devices to minimize risk of needle sticks (use is mandatory except with auto-injectors)
- Always ensure that all sharps are properly disposed of in a timely manner in an approved sharps disposal container
- A 23 to 25 gauge, 5/8-inch-long needle is appropriate for subcutaneous injections - the needle gauge for IM injections should be larger to accommodate viscous solutions and suspension
- Recommend 21G to 23G needles, 1" to 2" in length - as a rule of thumb, a 200 lb. (90 kg) patient requires a longer needle (i.e., 2") for an IM injection; a 100 lb. (45 kg) patient will require a 1-1⁄4" to 1-1⁄2" needle
- Prefilled systems may have an air bubble that will need to be purged prior to medication administration
- When drawing up medication from a vial or ampule, draw up a little extra that can be wasted when purging air bubbles
- Assure the proposed site for injection is free of inflammation, swelling, infection and any skin lesions
- Never recap used needles
- Allow alcohol to dry for 30 seconds for bacteria to be killed and to minimize discomfort of the injection
- Non-intact packaging may indicate loss of sterility
- Documentation should include (per local protocol): medication, dose delivered, route, site/method, time given, physician ordering medication, and EMS provider delivering medication
- A comprehensive assessment must be performed on all patients to whom medications will be administered to determine indication for medication, contraindication(s) for medication, appropriate dose for patient, and response to medication

Blood Glucose Monitoring

Objective(s)

1. Provide systematic approach to accurately document patient blood glucose levels to rule in or rule out treatable diabetic related emergencies

Equipment Needed

- Adhesive bandage
- 2X2s
- Sterilizing wipes
- Lancets
- Glucometer with test strips
- Sharps container

Steps in Skill/Assessment

1. Ensure glucometer is appropriately calibrated according to manufacture instructions
2. Assemble required equipment
3. Prepare glucometer to accept sample
4. Appropriately clean patient's finger and allow to air dry
5. Using lancet, prick side of patient's finger and place lancet in approved sharps container
6. Bring glucometer to finger and collect appropriate sample
7. Properly document glucometer reading

Critical Criteria

- Ensure proper management of sharps

Precautions/Comments

- Record reading in mg/dL
- Consider use on all patients with altered level of consciousness
- Ensure unit is calibrated per manufacturers specifications
- Check expiration date on test strips

Occlusive Dressing

Objective(s)

1. Apply an occlusive dressing for signs of an open pneumothorax

Equipment Needed

- Occlusive dressing

Steps in Skill/Assessment

1. Expose the wound and prepare the area for an occlusive dressing
2. If possible, have an assistant with a gloved hand cover the wound while preparing the dressing
3. Secure and cover the wound with the occlusive dressing (3 or 4 sided)
4. Observe for signs of improving respiratory effort

Critical Criteria

- Failure to properly apply the occlusive dressing

Precautions/Comments

- The diagnosis of an open pneumothorax is based on the history and the clinical finding of a wound on the chest wall that is sucking air into the chest and visibly bubbling with evidence of an underlying pneumothorax

Chest Decompression

Objective(s)

1. Emergency treatment of a tension pneumothorax via needle decompression

Equipment Needed

- Over-the-needle catheter (adult) or over-the-needle catheter (pediatric)
- 10 mL syringe
- 4x4s
- Antiseptic solution
- Tape

Steps in Skill/Assessment

1. Cleanse the insertion site with appropriate solution
2. Palpate selected insertion site
3. Place needle
4. Reconfirm the site of insertion and direct the needle over the top of the rib
5. Remove needle and dispose in proper container

Critical Criteria

- Incorrect needle placement
- Select chest decompression site according to EMS protocols

Precautions/Comments

- Catheter dislodgement
- Clotting or kinking of catheter
- Additional placements may be required

Cricothyrotomy

Objective(s)

1. To provide an emergent airway via a cricothyrotomy when unable to manage airway by any other means

Equipment Needed

- Selected surgical or percutaneous device

Steps in Skill/Assessment

1. Place patient in the supine position
2. Follow manufacture guidelines
3. Locate the cricothyroid membrane
4. Cleanse the area
5. Stabilize the area

   Surgical

   a. Make first incision to expose cricothyroid membrane
   b. Make second incision through cricothyroid membrane
   c. Inserts appropriately sized endotracheal tube
   d. Inflates the cuff

   Percutaneous device

   a. Attach a 14 gauge, or larger, over-the-needle catheter to a 5 - 10 ml syringe
   b. Direct the needle at a 45 degree toward the feet
   c. Advance the needle through the cricothyroid membrane with constant aspiration (aspiration of air indicates entry into the tracheal lumen)
   d. Withdraw needle while advancing catheter
   e. Attach the catheter to adapter
6. Confirm placement
7. Secure the tube

Critical Criteria

- Correctly locate the cricothyroid membrane
- Properly cleanse site
- Incorrect insertion technique

Precautions/Comments

- A 'popping' sound may be felt as scalpel pierces membrane and enters trachea
- Vertical midline incisions may result in a small amount of venous bleeding avoiding vasculature of neck
- Angiocath is generally 14 - 18 gauge, depending on size of child
- BVM must be disconnected from the ET tube during patient movement
- Cricothyroid membrane is located by palpating the protuberant midline portion of the thyroid cartilage
- If incision is lost, the location can be identified by air bubbles during exhalation
- Not recommended for patients under 12 years of age
- Suction depth should be no more than 3 - 6 cm typically
- The catheter/ET tube must be reassessed following any patient movement

Endotracheal Intubation

Objective(s)

1. To establish visualized advanced airway for ventilation
2. To facilitate the patency of a patient's airway using basic and advanced airway adjuncts

Equipment Needed

- BVM with mask and reservoir
- Oxygen
- Laryngoscope and blades
- Endotracheal (ET) tube with stylet, with 10ml syringe
- Suction equipment
- Stethoscope
- Secondary confirmation device

Steps in Skill/Assessment

1. Manually opens airway
2. Provides appropriate preoxygenation utilizing appropriate devices
3. Chooses appropriately sized equipment and functionality
4. Properly positions patient
5. Insert blade and displace mandible
6. Inserts the ET tube, advancing the tube into the trachea to appropriate depth
7. Removes stylet (if applicable)
8. Inflates the cuff to proper pressure and immediately removes syringe
9. Ventilates patient and confirms proper tube placement by auscultation bilaterally over lungs and over epigastrium
10. Confirm the placement of the ET Tube utilizing a secondary confirmation device
11. Secure the ET Tube utilizing appropriate securing method or device

Critical Criteria

- Damage to the teeth or gums
- Improper placement
- Disconnect syringe immediately following inflation of cuff

Precautions/Comments

- Use caution when attempting this skill on patient with facial trauma
- Tube placement requires no less than two forms of confirmation

Nasotracheal Intubation

Objective(s):

1. To facilitate the patency of a patient's airway using basic and advanced airway adjuncts

Equipment Needed

- BVM with mask and reservoir
- Oxygen
- Laryngoscope and blades
- Endotracheal (ET) tube with stylet
- Stethoscope
- Lubricant
- Secondary confirmation device

Steps in Skill/Assessment

1. Inspects nostrils to determine the largest and least deviated or obstructed nostril
2. Lubricates tube and prepares the nostril
3. Place the patient's head in the "sniffing" position. Place padding behind patient's shoulders to hold the position
4. Inserts the ET Tube into selected nostril and guides the tube along the septum
5. Ensure the tip of the ET Tube is positioned just superior to the vocal cords
6. Instruct the patient to take a deep breath and pass the ET Tube through the vocal cords to a proper depth
7. Inflates the cuff to proper pressure and immediately removes syringe
8. Ventilates patient and confirms proper tube placement by auscultation bilaterally over lungs and over epigastrium
9. Confirm the placement of the ET Tube utilizing a secondary confirmation device
10. Secure the ET Tube utilizing appropriate securing method or device

Critical Criteria

- Disconnect syringe immediately following inflation of cuff
- Recognize tube placed in epigastrium

Precautions/Comments

- Caution should be used when attempting this skill on a patient with facial trauma

Eye Irrigation

Objective(s)

1. Proper procedure for irrigating eye(s) after exposure to remove material

Equipment Needed

- Irrigation solution or clean water
- Absorbent pads
- Anesthetic as applicable
- Irrigation devices, if available
  - Nasal cannula
  - Bulb syringe
  - 20ml syringe
  - Morgan lens
  - Eye wash station/sink

Steps in Skill/Assessment

1. If present, remove anything covering the eye including contact lenses
2. Place patient in proper position
   a. Sitting
      i. Have patient lean forward and remove excess material
   b. Supine
      i. Turn patient's head so affect side is closest to the ground
      ii. If both eyes are affected, remain in a neutral position
3. Irrigate the eyes continually until arrival at receiving facility or until ordered discontinuance by medical control/poison control
4. Attempt to collect fluid to prevent cross contamination and to allow for more effective disposal

Critical Criteria

- Always irrigate from the bridge of the nose outward in order to avoid infecting or contaminating the uninjured eye

Precautions/Comments

- If chemical burn is involved, irrigate eye with normal saline continuously
- If thermal burns are involved, apply dressing moistened with sterile saline solution
- If light burns are involved, cover eyes with moist, lightproof pads
- Prior to patient contact, attempt to determine product. Once on-scene, make every effort to accurately identify the material in question. Consult poison control or SDS documentation

Hemorrhage Control - Tourniquet

Objective(s)

1. Identify the steps required to control major hemorrhage with an approved commercial tourniquet

Equipment Needed

- Tourniquet

Steps in Skill/Assessment

1. Remove clothing and expose wound
2. Do not remove previously applied direct pressure
3. Route the band around the injured extremity
4. Place the band above the injury
5. Do not place over joint
6. Remove all slack by pulling loose end of the band
7. Turn windlass until bleeding stops
8. Lock windlass
9. Record time tourniquet was applied

Critical Criteria

- Remove all slack prior to turning windlass
- Failure to control hemorrhage

Precautions/Comments

- Tourniquet should be placed over bare skin
- If placing over clothing, ensure single layer with no obstructions under device
- Make sure that tourniquet is not placed over joint
- Place second tourniquet above first tourniquet, if bleeding continues
- Document time of tourniquet application

Oxygen Administration

Objective(s)

1. Set-up oxygen tank and regulator

Equipment Needed

- Oxygen tank and regulator

Steps in Skill/Assessment

1. Gathers appropriate equipment
2. Cracks valve on the oxygen tank
3. Assembles the regulator to the oxygen tank
4. Opens the oxygen tank valve
5. Checks oxygen tank pressure
6. Checks for leaks
7. Attach end connector to oxygen source
8. Adjust control of liter flow

Critical Criteria

- Properly prepares oxygen tank and regulator

Precautions/Comments

- Oxygen cylinders must be handled carefully as contents are under high pressure
- Selection of a delivery device will depend on the patient's condition
- Regulators reduce cylinder's pressure to safe level, regulating flow in lpm
- Cylinders should retain a safe residual volume of 500 psi or per local protocol

Splinting - Joint/Long Bone/Pelvis

Objective(s)

1. Immobilize suspected fractures and/or dislocations by adequate immobilization of skeletal structure distal and proximal to the injury site
2. Apply manual stabilization and utilize appropriate splinting techniques
3. Determine the presence or absence of pulselessness, pain (on movement or palpation), paralysis, paresthesia (numbness or tingling), pallor (paleness), and pressure (6 Ps) distal to the injury site
4. Restore normal circulation distal to injury sites whenever possible and appropriate, with one attempt to align with gentle traction before splinting
5. Reduce the potential of further injury to nerves, blood vessels and soft tissue surrounding the injury site
6. Reduce hemorrhage and pain at the injury site and thereby reduce and/or minimize the potential of injury-related shock

Equipment Needed

- Appropriate splinting material

Steps in Skill/Assessment

1. Check 6 Ps distal to injury site
2. Stabilize manually proximal and distal to the injury site
3. Select appropriate splint
4. Splint application immobilizes injury
5. Re-check 6 Ps distal to injury site

Critical Criteria

- Assess or reassess circulation and sensation in the injured extremity before and after immobilization
- Apply and maintain manual stabilization of the extremity until the splinting process is complete
- Movement causes potential for further injury

Precautions/Comments

- Align severely angulated fractures with gentle traction unless resistance is felt. Do not attempt to replace protruding bone ends into the wound, if present
- Injuries involving joints should be immobilized in the position found. Make one attempt to restore circulation distal to an injury site
- Avoid applying pressure to the injury site, whenever possible
- Use of commercial splints should be in accordance with manufacturer's directions
- If suspected pelvic injury, apply pelvic binder as indicated and secure legs
- If suspected pelvic injury, avoid log roll technique

Splinting - Traction

Objective(s)

1. To immobilize suspected fractures and /or dislocations by adequate immobilization of skeletal structure distal and proximal to the injury site
2. To apply manual stabilization and utilize appropriate splinting techniques
3. To determine the presence or absence of pulselessness, pain (on movement or palpation), paralysis, paresthesia (numbness or tingling), pallor (paleness), and pressure (6 Ps) distal to the injury site
4. To restore normal circulation distal to injury sites whenever possible and appropriate, with one attempt to align with gentle traction before splinting
5. To reduce the potential of further injury to nerves, blood vessels and soft tissue surrounding the injury site
6. To reduce hemorrhage and pain at the injury site and thereby reduce and/or minimize the potential of injury-related shock

Equipment Needed

- Appropriate traction device

Steps in Skill/Assessment

1. Directs application of manual stabilization/traction of injured leg
2. Check 6 Ps distal to injury site
3. Prepare splint to proper length
4. Position splint next to/under injured leg
5. Apply groin strap
6. Apply ankle hitch
7. Apply appropriate mechanical traction
8. Secure support straps
9. Check 6 Ps distal to injury site

Critical Criteria

- Assess or reassess circulation and sensation in the injured extremity before and after immobilization
- Apply and maintain manual stabilization of the extremity until the splinting process is complete
- Movement causes potential for further injury

Precautions/Comments

- Apply and maintain manual stabilization of the extremity until the splinting process is complete
- Align severely angulated fractures with gentle traction unless resistance is felt. Do not attempt to replace protruding bone ends into the wound, if present
- Injuries involving joints should be immobilized in the position found. Make one attempt to restore circulation distal to an injury site
- Use of commercial splints should be in accordance with manufacturer's directions

Spinal Immobilization - Seated

Objective(s)

1. To provide protection of the spinal column in a patient with a suspected spinal fracture/dislocation and/or potential for spinal cord injury from blunt trauma
2. To provide spinal stabilization while maintaining a patent airway
3. To provide spinal stabilization throughout all patient handling, packaging and transport procedures

Equipment Needed

- Cervical collar
- Commercial immobilization device(s)

Steps in Skill/Assessment

1. Directs manual cervical (C-spine) stabilization
2. Assess Circulation, Motor, Sensation (CMS)
3. Applies appropriately sized cervical collar
4. Positions the immobilization device behind the patient after physical assessment of the spine (step-offs and point tenderness)
5. Secures the device to the patient's torso
6. Secures the device to the patient's head
7. Secures extremities
8. Reassess CMS

Critical Criteria

- Direct or take manual C-spine stabilization
- Release or order release of manual stabilization before it was maintained appropriately
- Apply cervical collar properly
- Immobilizes head to device before securing the torso
- Excessive spinal movement allowed
- Assess or reassess movement and sensation in each extremity before and after stabilization

Precautions/Comments

- Patients with penetrating traumatic injuries should only undergo spinal stabilization if a focal neurologic deficit is noted on physical exam

Spinal Immobilization - Supine

Objective(s)

1. To provide protection of the spinal column in a patient with a suspected spinal fracture/dislocation and/or potential for spinal cord injury from blunt trauma
2. To provide spinal stabilization while maintaining a patent airway
3. To provide spinal stabilization throughout all patient handling, packaging and transport procedures

Equipment Needed

- Cervical collar
- Commercial immobilization device(s)
- Long board and straps

Steps in Skill/Assessment

1. Directs manual cervical (C-spine) stabilization
2. Assess Circulation, Motor, Sensation (CMS)
3. Applies appropriately sized cervical collar
4. Positions the immobilization device behind the patient after physical assessment of the spine (step-offs and point tenderness)
5. Secures the device to the patient's torso
6. Secures the device to the patient's head
7. Secures extremities
8. Reassess CMS

Critical Criteria

- Direct or take manual C-spine stabilization
- Release or order release of manual stabilization before it was maintained appropriately
- Apply cervical collar properly
- Immobilizes head to device before securing the torso to long board
- Excessive spinal movement allowed
- Assess or reassess movement and sensation in each extremity before and after stabilization

Precautions/Comments

- Patients with penetrating traumatic injuries should only undergo spinal stabilization if a focal neurologic deficit is noted on physical exam

Suctioning - Soft and Rigid Catheter

Objective(s)

1. To create a properly functioning suction system, through the assembly of individual system components
2. Capable of removing foreign materials, blood, fluids, and bodily secretions from the upper airway.

Equipment Needed

- Suction device
- Suction catheter
- Suction tubing

Steps in Skill/Assessment

1. Checks responsiveness and opens airway properly
2. Prepares suction catheter
3. Measure the suction catheter. The length of catheter that should be inserted into the patient's mouth is equal to the distance between the corner of the patient's mouth and their earlobe or center of the mouth to the angle of the jaw
4. Turns on power to suction device or retrieves manual suction device
5. Inserts suction catheter without applying suction only as far as measured or visualized
6. Suctions the mouth and oropharynx for an appropriate time
7. Visualizes the airway has been cleared of foreign bodies

Critical Criteria

- Failure to use proper suctioning technique
- Suctions for excessive amount of time

Precautions/Comments

- If necessary, rinse the catheter and tubing with water to prevent obstructions of the tubing and catheter.
- If the patient has secretions or emesis that cannot be removed quickly and easily by suctioning, the patient should be log rolled and the oropharynx should be cleared

Laryngoscope and Magill Forceps

Objective(s)

1. To remove foreign body airway obstruction after basic life support measures have failed

Equipment Needed

- Laryngoscope and Magill Forceps with appropriate blade

Steps in Skill/Assessment:

1. Choose appropriate-sized forceps, laryngoscope handle and blade per manufacture's specifications
2. Assemble blade and handle, ensure light is bright and tightly secured in the blade
3. Place the patient's head in the "sniffing" position
4. Hold laryngoscope in left hand
    a. Adult patient - Hold handle with entire hand
    b. Infant patient - Hold handle with thumb, index and middle fingers while supporting chin with ring finger and little fingers of left hand for leverage
5. With the EMS provider at patient's head, insert blade in right side of mouth and displace tongue to left by moving blade to the midline
6. Lift tongue in direction of long axis of the handle without prying on teeth or gums
7. Visualize obstruction
8. Using the Magill forceps in the right hand, remove obstruction
9. Visualize airway for further obstructions before removing laryngoscope blade
10. Check for adequate air exchange

Critical Criteria

- Damage to the teeth, gums or oral cavity

Precautions/Comments

- The laryngoscope should never be levered against the teeth
- The Magill forceps should be held so handle does not obstruct view of pharynx
- This device is intended for use on unconscious patients

Universal Patient Assessment

Objective(s)

1. To determine the presence or absence of actual or potential hazards which pose a threat to the health and safety of rescuer(s), patient or bystander during rescuer operations and/or during transport
2. To determine the presence or absence of illness through a systematic assessment process incorporating inspection, auscultation, palpation, the taking of a patient history and the patient's vital signs

Equipment Needed

- 2X2s
- Bandage
- Blank paper and pencil
- Blanket
- Blood pressure cuff
- Gloves
- Glucometer with test strips
- Lancets
- Oxygen tank and NRB
- Penlight
- Pulse oximeter
- Sharps container
- Sterilizing wipes
- Stethoscope
- The following shall be provided appropriate to the provider care level
    - Diagnostic equipment
    - Medical intervention equipment

Steps in Skill/Assessment

SCENE EVALUATION

1. Appropriate PPE
2. Continuous scene safety
3. Appropriate resources for the given situation
4. General impression/patient assessment triangle

PRIMARY

X - Exsanguination - control life threatening bleeding/hemorrhage
A - Airway - Open, patent, maintained
B - Breathing - Adequate or inadequate, treat as appropriate
C - Circulation - Adequate or inadequate, bleeding and skin quality
D - Disability - AVPU, GCS
E - Expose/Exam - rapid head-to-toe exam for life threats and expose as appropriate
    - Identify patient high priority and/or make transport decision
    - Determines need for Spinal Precautions

VITAL SIGNS

- Vital Signs
- Blood Pressure
- Heart Rate
- Respiratory Rate
- SPO2 if available
- Temperature if available
- GCS

MONITORING DEVICES

- Blood glucose/point-of-care - ETCO2 - CO - ECG/12 lead

HISTORY

- SAMPLE
  - Associated Signs/Symptoms
  - Allergies
  - Medications
  - Past Medical History
  - Last Oral Intake
  - Events
- History of present illness
  - Onset
  - Provocation
  - Quality
  - Radiation
  - Severity
  - Time
  - Interventions (pt.)
  - Additional questions regarding present illness

SECONDARY ASSESSMENT/FULL BODY SCAN (ALL SYSTEMS) OR APPROPRIATE SYSTEMS IN FOCUSED EXAM

- Assess head - Inspects/Palpates
- Assess neck - Inspects/Palpates
- Assess chest - Inspects/Palpates
  - Auscultates lung sounds
  - Heart tones
- Assess abdomen - Inspects/Palpates
  - Auscultates for presence of bowel sounds
- Assess pelvis - Inspects/Palpates
- Assess extremities - Inspects/Palpates
  - R Arm
  - L Arm
  - R Leg
  - L Leg
- Assess posterior (completed during long-spine board placement) Inspects/Palpates

- Identifies/Manages Secondary injury/injuries (voice treatment) and/or other conditions as appropriate
- Assessment Findings:
  - Considered pertinent negatives
  - Considered pertinent positives
- States field impression
  - Develop and implement appropriate treatment plan

REASSESSMENT

- Repeats primary assessment
- Evaluates response to treatments/treatment plan
- Repeats secondary or focused assessment
- Repeats vital signs as appropriate

Critical Criteria

- Develops an appropriate field impression and treatment plan
- Follows all appropriate medications and treatment recommendations
- Identifies immediate life threat at appropriate time(s)

Precautions/Comments

- Patients with an altered mental status include those who are unresponsive and those who are unable to respond reliably or provide a history
- If the patient condition changes at any time, immediately repeat the primary assessment

Evaluation Criteria Airway - BVM with Oropharyngeal Airway

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Checks responsiveness		
2.	Checks breathing and pulse simultaneously		
3.	Attaches BVM to oxygen tank using high flow oxygen		
4.	Initiates ventilations with BVM per current BLS standards		
5.	Ensures proper seal with visualization of chest rise and fall		
6.	Selects appropriate airway		
7.	Opens mouth using manual technique		
8.	Inserts airway		
9.	Checks for adequate air exchange		

Evaluation Criteria Airway - BVM with Nasopharyngeal Airway

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Checks responsiveness		
2.	Checks breathing and pulse simultaneously		
3.	Administers oxygen as appropriate		
4.	Initiates ventilations with BVM per current BLS standards		
5.	Ensures proper seal with visualization of chest rise and fall		
6.	Visualize the nares and select a nasopharyngeal airway		
7.	Size the device appropriately		
8.	Lubricate the distal surface of the airway		
9.	Insert the airway		

Evaluation Criteria Airway - Non-Visualized Supraglottic Devices

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Opens the airway manually		
2.	Elevates tongue, inserts simple adjunct		
3.	Initiates ventilations with BVM per current BLS standards		
4.	Verbalizes attachment of high-flow oxygen		
5.	Directs assistant to ventilate patient		
6.	Selects non-visualized airway device		
7.	Places head in neutral position		
8.	Performs tongue-jaw lift		
9.	Inserts device		
10.	Secures device		
11.	Confirm proper placement		
12.	Adjusts device to maximize effectiveness of ventilations		
13.	Secures device in place, if applicable		
14.	Continues ventilations		

Evaluation Criteria Aerosolized/Nebulized Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
	Metered Dose Inhaler		
	Preparation		
1.	Inspect the medication		
2.	Shake the inhaler canister vigorously		
3.	Add spacer		
4.	Wait 1-2 minutes between inhalations; shake canister before each inhalation		
	Administration		
5.	Re-check six rights		
6.	Verify the inhaler belongs to the patient		
7.	Shake the inhaler canister vigorously		
8.	Explain procedure to the patient		
9.	Instructs patient to forcibly exhale		
10.	Instructs patient to place lips around the inhaler		
11.	Activate inhaler while inhaling deeply		
12.	Hold breath as long as comfortably able		
13.	Remove supplemental oxygen		
14.	Assist with medication administration		
15.	Replace oxygen and encourage patient to take several deep breaths		
16.	Repeat steps c - g to obtain ordered dosage(s)		
	Nebulizer Device		
	Preparation		
17.	Select a nebulizer delivery method based on the patient's ability to hold the device and coordinate inhalation and breathing technique		
18.	Prepares hand-held delivery device		
19.	Prepares mask delivery device		
20.	Assemble the medication cup		
21.	Inspect the medication		

#	EMS Skill/Procedure Steps	Met	Not Met
22.	Place the ordered dose of medication(s) into the medication cup		
23.	Attach the oxygen tubing		
24.	Turn on oxygen and adjust flow for best results		
	Administration		
25.	Assemble nebulizer delivery device		
26.	Explain procedure to the patient		
27.	Seal lips around the mouthpiece of the hand-held nebulizer and spacer or place mask on patient		
28.	Take slow breaths and inhale as deeply as possible		
29.	Hold breath as long as comfortably able, up to 10 seconds		
30.	Continue until the medication is gone		
31.	Remove supplemental oxygen		
32.	Start nebulizer with oxygen at 6 l pm and titrate to effect		
33.	Encourage patient to take slow, deep breaths		
34.	Replace supplemental oxygen when the treatment is completed		

Evaluation Criteria Auto Injector Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Inspect the auto-injector		
2.	Remove the safety cap		
3.	Prepare medication		
4.	Re-check the six rights		
5.	Selects injection site		
6.	Cleanse the injection site		
7.	Grasp the auto-injector		
8.	Place dispensing end of auto-injector		
9.	Stabilize the patient's leg		
10.	Inject medication through auto-injector		
11.	Hold in place per manufacturer's recommendations		
12.	Properly dispose of the auto-injector		
13.	Place bandage over the injection site		

Evaluation Criteria Endotracheal Tube (ET) Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Draw up medication		
2.	Selects correct ET dose		
3.	Add sterile saline		
4.	Pre-oxygenate patient		
5.	Remove bag-valve device and deliver medication into ET tube		
6.	Distribute medication with several positive-pressure ventilations		

Evaluation Criteria Peripheral Intravenous (IV) Access

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Give directions to patient and obtain consent		
2.	Select proper IV solution and administration set		
3.	Select proper size IV catheter		
4.	Prepare IV administration set to solution		
5.	Prepare equipment		
6.	Select and cleanse IV site		
7.	Place tourniquet and identify vein		
8.	Advance catheter and observe for “flash”		
9.	Occlude vein and remove needle		
10.	Place needle in SHARPS		
11.	Attach tubing to catheter hub		
12.	Release tourniquet		
13.	Ensure proper flow rate or flush		
14.	Secure IV catheter and tubing		
15.	Monitor patient for effects		

Evaluation Criteria Intraosseous (IO) Access

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Checks selected IV fluid for: • Proper fluid • Clarity • Expiration date		
2.	Selects appropriate equipment to include: • IO needle • Syringe • Saline • Extension set or 3-way stopcock		
3.	Selects proper administration set		
4.	Connects administration set to bag		
5.	Prepares administration set		
6.	Prepares syringe and extension tubing or 3-way stopcock		
7.	Cuts or tears tape		
8.	Identifies proper anatomical site		
9.	Cleanses site appropriately		
10.	Performs IO puncture		
11.	Disposes/verbalizes proper disposal of needle		
12.	Attaches syringe and extension set or 3-way stopcock or attaches extension set to IO needle		
13.	Slowly injects saline		
14.	Adjusts flow rate/bolus as appropriate		
15.	Secures needle		

Evaluation Criteria Intravenous (IV)/Intraosseous (IO) Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Give directions to patient and obtain consent		
2.	Ensure “six rights” of medication delivery		
3.	Inspect medication		
4.	Ensure a patent IV/IO access		
5.	Prepare medication for delivery		
6.	Select and clean injection port		
7.	Attach syringe to the injection port		
8.	Occlude between injection port and IV bag		
9.	Occlude proximal injection port		
10.	Properly inject medication into port		
11.	Disconnect syringe and properly flush the tubing		
12.	Properly dispose of SHARPS		

Evaluation Criteria Enteral Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
	Tablets		
1.	Inspect medication		
2.	Obtain the proper dose		
3.	Re-check the label		
4.	Give directions to patient		
	Sublingual spray		
5.	Inspect medication		
6.	Give directions to patient		
7.	Delivers medication under patient's tongue		
	Buccal		
8.	Inspect medication		
9.	Give directions to patient		
10.	Administer medication		
11.	Re-check the six rights		
12.	Explain procedure to the patient		
13.	Administer medication into patient's mouth		
14.	Assure the medication is swallowed, chewed or dissolved		
15.	Document medication administration		
16.	Performs reassessment		

Evaluation Criteria Intranasal (IN) Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Explain procedure to patient		
2.	Place atomizer in selected nostril		
3.	Depress plunger quickly		
4.	Switch nostrils to administer remaining dose		
5.	Remove atomizer from nostril		

Evaluation Criteria Injectable Medication Preparation

#	EMS Skill/Procedure Steps	Met	Not Met
	Vial Medication Administration		
1.	Inspect the medication		
2.	Select an appropriate size syringe		
3.	Remove the protective "flip off" cap		
4.	Clean rubber stopper		
5.	Reconstitute a medication		
6.	Inject diluting solution		
7.	Remove the needle/syringe		
8.	Gently shake vial		
9.	Draw up the medication		
10.	If drawing a medication or diluting solution from a vial: Draw up the same volume of air as the volume to be withdrawn		
11.	Pierce the center of the vial's stopper with needle		
12.	Inject air		
13.	Holding the vial upside down draw the medication or diluting solution into the syringe		
14.	Withdraw the needle and syringe from the vial		
15.	Replace the needle		
16.	For patient comfort, change the needle prior to injection		
17.	Use a larger needle for drawing up and smaller needle for injecting		
18.	Remove any air bubbles		
19.	Administer medication		
	Ampule Medication Injection		
1.	Select a syringe		
2.	Select a filter needle		
3.	Hold the ampule upright and gently "flick" it		
4.	Clean the area between the head and base of the ampule		
5.	Open the ampule		
6.	Break the head from the base		

#	EMS Skill/Procedure Steps	Met	Not Met
7.	Withdraw medication for administration		
8.	Remove the filter needle		
9.	Replace with an appropriate size needle		
10.	Remove any air bubbles		
11.	Expel air		
12.	Inspect the medication		
13.	Remove the protective cap		
14.	Secure medication cartridge in the barrel		
15.	Attach an appropriately sized needle		
16.	Inspect the medication cartridge		
17.	Insert and secure the syringe cartridge		
18.	Attach an appropriately sized needle		
19.	Remove the protector and expel air		
20.	Administer medication		

Evaluation Criteria Intramuscular/Subcutaneous (IM/SQ) Injectable Medication Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Prepare medication		
2.	Re-check the six rights		
3.	Ensure needle is attached for administration		
4.	Select an appropriate injection site		
5.	Gently tap to stimulate the nerve endings		
6.	Cleanse the injection site		
7.	Remove the needle cover		
8.	Stabilize the injection site		
9.	Insert the needle into the injection site		
10.	Release the skin while continuing to hold the syringe		
11.	Administer medication and withdraw the needle		
12.	Cover the injection site		
13.	Properly dispose of the syringe and needle		
14.	Place a bandage over injection site		

Evaluation Criteria Blood Glucose Monitoring

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Prepares equipment		
2.	Clean finger		
3.	Turn unit on		
4.	Confirm test strip code		
5.	Prick finger with lancet		
6.	Apply sample to test strip		
7.	Cover puncture site		
8.	Dispose of lancet		
9.	Note and record reading		

Evaluation Criteria Occlusive Dressing

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Identify need for an occlusive dressing		
2.	Expose wound and prepare area		
3.	Have assistant cover the wound		
4.	Secure and cover the wound with occlusive dressing		

Evaluation Criteria Chest Decompression

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Cleanse the insertion site		
2.	Palpate selected insertion site		
3.	Place needle		
4.	Reconfirm the site of insertion and direct the needle over the top of rib		
5.	Remove needle and dispose		

Evaluation Criteria Cricothyrotomy

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Place patient in the supine position		
2.	Follow manufacture guidelines		
3.	Locate the cricothyroid membrane		
4.	Cleanse the area		
5.	Stabilize the area		
	Surgical		
6.	Make first incision to expose cricothyroid membrane		
7.	Make second incision through cricothyroid membrane		
8.	Inserts appropriately sized endotracheal tube		
9.	Inflate the cuff		
	Percutaneous device		
10.	Attach over-the-needle catheter		
11.	Direct the needle toward the feet		
12.	Advance the needle through the cricothyroid membrane with constant aspiration		
13.	Withdraw needle while advancing catheter		
14.	Attach the catheter to adapter		
15.	Confirm placement		
16.	Secure the tube		

Evaluation Criteria Endotracheal Intubation

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Manually opens airway		
2.	Provides preoxygenation		
3.	Chooses appropriately sized equipment and functionality		
4.	Properly positions patient		
5.	Insert blade and displace mandible		
6.	Inserts the ET tube		
7.	Locates trachea and places ET tube just past epiglottis		
8.	Inflates ET tube cuff to desired amount		
9.	Confirms placement		
10.	Secures ET tube		

Evaluation Criteria Nasotracheal Intubation

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Inspects nostrils to determine best nostril		
2.	Lubricates tube and prepares the nostril		
3.	Place the patient's head in the "sniffing" position		
4.	Inserts the ET tube into selected nostril and guides the tube along the septum		
5.	Ensures proper position of ET tube		
6.	Instruct the patient to take a deep breath and pass the ET tube through the vocal cords to a proper depth		
7.	Inflates cuff and removes syringe		
8.	Ventilates patient and confirms tube placement		
9.	Confirm the placement utilizing a secondary confirmation device		
10.	Secures the ET tube		
11.	Provides adequate ventilation to patient		

Evaluation Criteria Eye Irrigation

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Remove anything covering eye		
2.	Place patient in proper position		
3.	Sitting: patient leans forward and remove excess material		
4.	Supine: turn patient's head so affect side closest to ground		
5.	If both eyes are affected, remain in a neutral position		
6.	Irrigate eyes continually		
7.	Collect fluid to prevent cross contamination		

Evaluation Criteria Hemorrhage Control - Tourniquet

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Remove clothing and expose wound		
2.	Do not remove previously applied direct pressure		
3.	Route the band around the injured extremity		
4.	Place the band above the injury		
5.	Remove all slack by pulling loose end of the band		
6.	Turn windlass until bleeding stops		
7.	Lock windlass		

Evaluation Criteria Oxygen Administration

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Gathers appropriate equipment		
2.	Cracks valve on the oxygen tank		
3.	Assembles the regulator to the oxygen tank		
4.	Opens the oxygen tank valve		
5.	Checks oxygen tank pressure		
6.	Checks for leaks		
7.	Attach end connector to oxygen source		
8.	Adjust control of liter flow		

Evaluation Criteria Splinting - Joint/Long Bone/Pelvis

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Check 6 Ps distal to injury site		
2.	Stabilize manually proximal and distal to the injury site		
3.	Select appropriate splint		
4.	Splint application immobilizes injury		
5.	Re-check 6 Ps distal to injury site		

Evaluation Criteria Splinting - Traction

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Directs manual stabilization/traction of injury		
2.	Check 6 Ps distal to injury site		
3.	Prepare splint to proper length		
4.	Positions splint		
5.	Apply groin strap		
6.	Apply ankle hitch		
7.	Apply mechanical traction		
8.	Secure support straps		
9.	Check 6 Ps distal to injury site		

Evaluation Criteria Spinal Immobilization - Seated

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Direct manual C-spine stabilization		
2.	Assess CMS		
3.	Applies cervical collar		
4.	Positions the immobilization device		
5.	Secures the device to the patient's torso		
6.	Secures the device to the patient's head		
7.	Secures extremities		
8.	Reassess CMS		

Evaluation Criteria Spinal Immobilization - Supine

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Direct manual C-spine stabilization		
2.	Assess CMS		
3.	Applies cervical collar		
4.	Positions the immobilization device behind the patient		
5.	Secures the device to the patient's torso		
6.	Secures the device to the patient's head		
7.	Secures extremities		
8.	Reassess CMS		

Evaluation Criteria Suctioning - Soft and Rigid Catheter

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Checks responsiveness and opens airway		
2.	Prepares suction catheter		
3.	Measure the suction catheter		
4.	Turns on suction device or retrieves manual suction device		
5.	Inserts suction catheter		
6.	Suctions the mouth and oropharynx		
7.	Visualizes airway has been cleared		

Evaluation Criteria Laryngoscope and Magill Forceps

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Choose forceps, laryngoscope handle and blade		
2.	Assemble blade and handle		
3.	Place the patient's head in the "sniffing" position		
4.	Holds laryngoscope in left hand		
5.	Inserts blade in right side of mouth		
6.	Lift tongue in direction of long axis of the handle		
7.	Visualize obstruction		
8.	Uses Magill forceps to remove obstruction		
9.	Visualize airway for further obstructions		
10.	Check for adequate air exchange		

Evaluation Criteria Universal Patient Assessment

#	EMS Skill/Procedure Steps	Met	Not Met
1.	Scene Evaluation • Appropriate PPE • Continuous Scene Safety • Appropriate resources for the given situation • General impression/patient assessment triangle		
2.	PRIMARY X - Exsanguination - control life threatening bleeding/hemorrhage A - Airway - Open, patent, maintained B - Breathing - Adequate or inadequate, treat as appropriate C - Circulation - Adequate or inadequate, bleeding and skin quality D - Disability - AVPU, GCS E - Expose/Exam - rapid head-to-toe exam for life threats and expose as appropriate		
3.	Identify patient high priority and/or make transport decision		
4.	Determines need for Spinal Precautions		
5.	VITAL SIGNS • Vital Signs • Blood Pressure • Heart Rate • Respiratory Rate • SPO2 if available • Temperature if available • GCS		
6.	MONITORING DEVICES • Blood glucose/point-of-care - ETCO2 - CO - ECG/12 lead		
	HISTORY		
7.	SAMPLE • Associated Signs/Symptoms • Allergies • Medications • Past Medical History • Last Oral Intake • Events		

#	EMS Skill/Procedure Steps	Met	Not Met
8.	History of present illness • Onset • Provocation • Quality • Radiation • Severity • Time • Interventions (pt.) • Additional questions regarding present illness		
	SECONDARY ASSESSMENT/FULL BODY SCAN		
9.	Assess head - Inspects/Palpates		
10.	Assess neck - Inspects/Palpates		
11.	Assess chest - Inspects/Palpates		
12.	Assess abdomen - Inspects/Palpates		
13.	Assess pelvis - Inspects/Palpates		
14.	Assess extremities - Inspects/Palpates		
15.	Assess posterior - Inspects/Palpates		
16.	Identifies/Manages Secondary injury/injuries and/or other conditions		
17.	Assessment Findings		
18.	States field impression		
	REASSESSMENT		
19.	Repeats primary assessment		
20.	Evaluates response to treatments/treatment plan		
21.	Repeats secondary or focused assessment		
22.	Repeats vital signs as appropriate		

Glossary

6 Ps - pulselessness, pain (on movement or palpation), paralysis, paresthesia (numbness or tingling), pallor (paleness), and pressure

Absorption - medications traveling through body tissues and to the bloodstream

AC - Antecubital Fossa

Action - therapeutic effect of medication on the body

Adsorption - process of binding or sticking to a surface

AED - Automated External Defibrillator or Defibrillation

Airway - upper airway tract or the passage above the larynx, which includes the nose, mouth, and throat

ALS - Advanced Life Support

American Standard Safety System - safety system for large oxygen cylinders, designed to prevent the accidental attachment of a regulator to a cylinder containing the wrong type of gas

Amputation - injury in which part of the body in completely severed

AVPU - Alert, Verbal, Painful, Unresponsive

Bag-Valve Mask (BVM) - device with a one-way valve and a facemask attached to a ventilation bag; it delivers more than 90% supplemental oxygen

Barrier device - protective item, such as a pocket mask with a valve that limits exposure to a patient's body fluids

BSI - Body Substance Isolation

Carpuject - syringe device used for the administration of injectable medications/fluids

CAT - Combat Application Tourniquet

CMS – circulation/motor/sensory

CO - carbon monoxide

Coagulation - formation of clots to plug openings in injured blood vessels

Compartment Syndrome - An elevation of pressure within a closed fascial compartment, characterized by extreme pain, decreased pain sensation, pain on stretching of affected muscles, and decreased power; frequently seen in fractures below the elbow or knee in children

Contraindication - Conditions that make a medication or treatment inappropriate because it would not help, or may harm, a patient

Contusion - injury caused by bleeding beneath the skin without breaking the skin

CPR - Cardiopulmonary Resuscitation

Crepitus - grating/grinding sensation or sound caused by fractured bone ends or joints rubbing together

CRT - Capillary Refill Time

DCAP/BTLS - deformities, contusions, abrasions, penetrations, burns, tenderness, lacerations, swelling

DHS - Department of Health Services

Diffusion - process in which molecules move from an area of higher concentration to an area of lower concentration

Dislocation - disruption of a joint in which ligaments are damaged and the bone ends are no longer intact

Dose - amount of medication given based on the patient's size and age

Dyspnea - shortness of breath

ECG/12 lead - electrocardiogram/12 lead electrocardiogram used in the pre-hospital setting to identify a STEMI

EJ - IV catheter used for cannulation of the external jugular vein

EMR - Emergency Medical Responder

EMS - Emergency Medical Services

EMT - Emergency Medical Technician

EMT-administered medication - administered by the EMT directly to the patient

Enteral - entering the body through the digestive system

Epinephrine - medication that increases heart rate and blood pressure but also eases breathing problems by decreasing muscle tone of the bronchiole tree

Epistaxis - nosebleed

ETCO2 - term used to identify a patient's end tidal carbon dioxide level

Exhalation - passive part of the breathing process in which the diaphragm and the intercostal muscles relax, forcing air out of the lungs

External respiration - exchange of gases between the lungs and the blood cells in the pulmonary capillaries; also called pulmonary respiration

Fracture - break in the continuity of a bone

Gel - semiliquid substance that is administered orally in capsule form and topically

Gastric Distention-condition in which air fills the stomach, often as a result of high volume and pressure during artificial ventilation

Hematoma - blood collecting within damaged tissue beneath the skin or body cavity

Hematuria - Blood in the urine

Hemorrhage - Bleeding

Hemostatic Agent - chemical compound designed to stop bleeding by clot formation

Hypoperfusion - circulatory system failure to provide adequate circulation and function

Indications - therapeutic uses for a specific medication

Inhalation - breathing into the lungs; a medication delivery route OR active, muscular part of breathing that draws into the airway and lungs

Internal respiration - exchange of gases between the blood cells and the tissues

Intramuscular (IM) injection - injection into a muscle; a medication delivery route

Intranasal (IN) - delivery route in which a medication is pushed through a specialized atomizer device called a mucosal atomizer device (MAD) into the nares

Intraosseous (IO) injection - injection into the bone; a medication delivery route

Intravenous (IV) injection - injection directly into a vein; a medication delivery route

Joint - space where two bones come into contact

JVD - Jugular Vein Distention

Medication error - inappropriate use of a medication that could lead to patient harm

Medication - substance that is used to treat or prevent disease or relieve pain

Metered-Dose Inhaler (MDI) - miniature spray canister through which droplets or particles of medication may be inhaled

mg/dl - milligram per deciliter

mmHg - millimeters of Mercury

MOI - Mechanism of Injury

Mucosal Atomizer Device (MAD) - device that is used to change a liquid medication into a spray and push it into a nostril

NOI - Nature of Illness

NRB - non-rebreather oxygen mask

OPIM - Other potentially infectious materials

OPQRST - Onset, Provocation, Quality, Radiation, Severity, Time

Oral - by mouth; a medication delivery route

Parenteral medications - Medications that enter the body by a route other than the digestive tract, skin, or mucous membranes

Patient-assisted medication - EMT assists the patient with delivery of a medication

Peer-assisted medication - EMT self-administers medication or to a partner

Pelvic Binder - device to splint the bony pelvis to reduce hemorrhage from bone ends, venous disruption, and pain

Per OS (PO) - by mouth; a medication delivery route; same as oral

Per rectum (PR) - through the rectum; medication delivery route

Point Tenderness - tenderness that is sharply localized at the site of injury, found by gently palpating along the bone with one tip of one finger

Position of Function - hand position in which the wrist is slightly dorsiflexed, and all finger joints are moderately flexed

PPE - Personal Protective Equipment

pt. - abbreviation used to identify a patient

SAMPLE - signs & symptoms, allergies, medications, past pertinent medical history, last oral intake and events preceding incident

SDS - Safety Data Sheet

SHARPS container - container used to dispose of sharp objects, such as used and/or not usable needles and intravenous (IV) catheters

Side effect - any effect of a medication other than the desired ones

Sling - bandage or material that helps support the weight of an injured upper extremity

SOF-T Wide - Tactical Medical Solutions Tactical Tourniquet Wide

Solution - liquid mixture that cannot be separated by filtering or allowing to stand

Spinal Motion Restriction (SMR) - attempting to maintain the spine in anatomic alignment and minimizing gross movement irrespective of adjuncts or devices

Splint - flexible or rigid device used to protect and maintain the position of an injury

SpO2 - saturation percentage of oxygen

ST - segment of an ECG complex which may be indicative of a myocardial infarction when it is elevated above the isoelectric line

STEMI - ST elevation myocardial infarction

Subcutaneous (SC) injection - injection into the fatty tissue between the skin and muscle; a medication delivery route

Sublingual (SL) - under the tongue; medication delivery route

Suspension - mixture of ground particles that are distributed evenly throughout a liquid but do not dissolve

Swathe - bandage the passes around the chest to secure an injured arm to the chest

Tourniquet - bleeding control method used when bleeding can't be controlled otherwise

Traction - longitudinal force applied to a structure

x4A - acronym used to identify a patient alert status related to person, place, time and reason