

Southern Illinois Regional EMS System

II-33 CENTRAL LINES: CARE AND MAINTENANCE

1. Guidelines:
 - 1.1. ALS personnel (EMT-Paramedics) may transport a hemodynamically stable patient with a central venous catheter, multilumen catheter or implanted vascular access device who requires continuous maintenance intravenous fluids and medications:
 - 1.1.1. The transferring hospital shall ensure IV fluids are sufficient for the duration of the transport.
 - 1.1.1.1. Prehospital personnel are not responsible to mix and/or initiate medications or fluids. Monitor Only.
 - 1.1.2. Fluids and medications per CVP lines, that do not require titration, shall be maintained on an infusion pump at a set rate for continuous infusion only:
 - 1.1.2.1. Refer to System Medication Policy for approved medications for transport.
 - 1.1.3. Patient receiving continuous infusion per central line must be on a cardiac monitor.
 - 1.1.4. TPN, Hyperal or Blood solutions are not approved for transport via peripheral or central lines.
 - 1.1.5. No IV bolus or push medication shall be administered via central line unless the patient develops a life-threatening situation which requires immediate intervention.
 - 1.1.5.1. Medical Control must be contacted.
2. General Care and Maintenance:
 - 2.1. Care and maintenance of central/multilumen catheters should be considered an aseptic procedure.
 - 2.2. Dressing changes are a sterile procedure and not the responsibility of the paramedic.
 - 2.2.1. In the event of leakage from the site, reinforce the dressing with sterile 4x4"s.
 - 2.3. Scissors or sharp objects should not be used on or around the catheter or tubing.
 - 2.4. Access for signs of fluid infiltration:
 - 2.4.1. Swelling in the shoulder, neck, chest, or arm.
 - 2.5. Minimize patient activity.
 - 2.6. Document your assessment findings and interventions, if any, during transport.
 - 2.6.1. Include type of fluid/medications, flow rate of infusion, and development of problems.
3. Complications:
 - 3.1. Examine the site carefully without removing the dressing for infiltration:
 - 3.1.1. Swelling in the shoulder, neck, chest, or arm.
 - 3.2. If the patient complains of:
 - 3.2.1. Stinging, burning or pain at the site:
 - 3.2.1.1. Discontinue the infusion by:
 - 3.2.1.1.1. Clamping the tubing.
 - 3.2.1.1.2. Turning off the infusion pump.
 - 3.2.1.1.3. Do not remove the catheter.
 - 3.3. With signs of:
 - 3.3.1. Air Embolism and Pneumothorax/Hemothorax:
 - 3.3.1.1. Chest pain.
 - 3.3.1.2. Dyspnea.
 - 3.3.1.3. Cyanosis.
 - 3.3.1.4. Decreased breath sounds on affected side.

Southern Illinois Regional EMS System

II-33 CENTRAL LINES: CARE AND MAINTENANCE

- 3.3.1.5. Respiratory distress.
 - 3.3.1.6. Decreased pulse.
 - 3.3.1.7. Decreased blood pressure.
 - 3.3.2. Check for opening, cutting or break in catheter. If present:
 - 3.3.2.1. Discontinue Infusion by:
 - 3.3.2.1.1. Clamping tubing close to the site.
 - 3.3.2.1.2. Turning off the infusion pump.
 - 3.3.3. Divert to the nearest hospital and contact medical control.
4. Drug administration:
- 4.1. No IV bolus or push medication shall be administered via central line unless the patient develops a life-threatening situation which requires immediate intervention. Medical Control must be contacted.
 - 4.2. Do not use multiple lumens for drug administration.
 - 4.3. Procedure:
 - 4.3.1. Check for blood return and flush with 10cc normal saline.
 - 4.3.2. Clamp the extension tubing and connect the empty syringe to the tubing.
 - 4.3.3. Release the clamp and aspirate slowly to verify blood return.
 - 4.3.4. Flush with 3-5cc normal saline.
 - 4.3.5. Administer the medication and flush afterward with 3-5cc normal saline.
 - 4.3.6. Flush with 10cc normal saline for incompatible medications/fluids.