

Southern Illinois Regional EMS System

II-33 CENTRAL LINES: CARE AND MAINTENANCE

Guidelines:

- ALS personnel (EMT-Paramedics) may transport a hemodynamically stable patient with a central venous catheter, multi-lumen catheter or implanted vascular access device who requires continuous maintenance intravenous fluids and medications:
 - The transferring hospital shall ensure IV fluids are sufficient for the duration of the transport.
 - Prehospital personnel are not responsible to mix and/or initiate medications or fluids. Monitor Only.
 - 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:
 - Refer to transfer medication protocol for approved medications for transport.
 - Patient receiving continuous infusion per central line must be on a cardiac monitor.
 - 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.

General Care and Maintenance:

- Care and maintenance of central/multilumen catheters should be considered an aseptic procedure.
- Dressing changes are a sterile procedure and not the responsibility of the paramedic.
 - In the event of leakage from the site, reinforce the dressing with sterile gauze.
- Scissors or sharp objects should not be used on or around the catheter or tubing.
- Access for signs of fluid infiltration:
 - Swelling in the shoulder, neck, chest, or arm.
- Minimize patient activity.
- Document your assessment findings and interventions, if any, during transport.
 - Include type of fluid/medications, flow rate of infusion, and development of problems.

Complications:

- Examine the site carefully without removing the dressing for infiltration:
 - Swelling in the shoulder, neck, chest, or arm.
- If the patient complains of:
 - Stinging, burning or pain at the site:
 - Discontinue the infusion by:
 - Clamping the tubing.
 - Turning off the infusion pump.
 - Do not remove the catheter.
- With signs of:
 - Air Embolism and Pneumothorax/Hemothorax:
 - Chest pain.
 - Dyspnea.
 - Cyanosis.
 - Decreased breath sounds on affected side.

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- Respiratory distress.
- Decreased pulse.
- Decreased blood pressure.

Check for opening, cutting or break in catheter. If present:

- Discontinue Infusion by:
 - Clamping tubing close to the site.
 - Turning off the infusion pump.
- Divert to the nearest hospital and contact Medical Control.

Drug administration:

- 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.
- Do not use multiple lumens for drug administration.
- Procedure:
 - Check for blood return and flush with 10cc normal saline.
 - Clamp the extension tubing and connect the empty syringe to the tubing.
 - Release the clamp and aspirate slowly to verify blood return.
 - Flush with 3-5cc normal saline.
 - Administer the medication and flush afterward with 3-5cc normal saline.
 - Flush with 10cc normal saline for incompatible medications/fluids.