Interosseous/ Intravenous/ Intranasal (206)

Intravenous • A saline lock may be used for blood draw or when a patient requires intravenous access but does not require continuous infusion of an intravenous solution. A saline lock alone may not be used for patients at risk for hypoperfusion (i.e. cardiac arrest, burn, or signs of physiological shock).	**Intravenous** • A saline lock may be used for blood draw or when a patient requires intravenous access but does not require continuous infusion of an intravenous solution. A saline lock alone may not be used for patients at risk for hypoperfusion (i.e. cardiac arrest, burn, or signs of physiological shock).
Base Hospital Contact Required	**Base Hospital Contact Required**

206 INTEROSSEOUS/INTRAVENOUS/INTRANASAL

Central Vascular Access Devices (Cvad) (207)

I. Purpose:

A. To define training requirements, indications, guidelines, and the standard procedure for access of pre-existing central vascular access devices (CVAD) on critically ill patients.

II. Authority:

A. Health and Safety Code, Section 1797.220, 1798. Title 22, Section 100170.

III. Definitions:

A. Pre-existing vascular access device (PVAD): An indwelling catheter or device placed into a central vein to provide vascular access for long term use or hemodialysis.

1. Externally accessible central venous line: External central venous catheter; may be single or multi-lumen. Usually located in subclavian, jugular or femoral veins. Often called a PICC line (peripherally inserted central catheter) or central venous catheter. Accessed through injection cap.

2. Tunneled temporary or permanent dialysis catheter: External central venous catheter with two lumens, usually located in the subclavian vein and located on the anterior chest. Occasionally may be found in the femoral or jugular. This shall only be used in unstable patients with impending or existing cardiac arrest with no other option for vascular access.

3. Hemodialysis fistula/graft: A permanent surgical connection that diverts blood flow from an artery to a vein. Usually located on the upper extremity and is used for dialysis. This shall not be used by prehospital personnel.

4. Internal indwelling catheter: Tunneled and implanted long term port. Usually on chest wall or arm. No external lumens noted. This device is not to be used by prehospital personnel.

IV. Policy:

PVADs may be used in the prehospital setting as set forth by this document.

A. Paramedics shall successfully complete a PVAD training module approved by Kern County EMS Agency and have skill checked off by an approved trainer prior to administering fluids and/or medications through a PVAD.

B. Indications:

a. Existing peripheral inserted central catheter (PICC) or central venous catheter (CVC)- May be used in any situation as long as patency is established.

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b. External central venous catheters (Dialysis catheter) - May be used in unstable patients with impending arrest when no other access can be established.

C. Documentation will include:

a. Date and time device accessed

b. Type of device accessed

c. Prior attempts for establishing peripheral access

d. Patient's condition requiring device to be access

e. Any complications encountered

f. Medication dosages and/or total amount of fluids administered

B. Risks:

1. Introduction of an air embolism (and possible stroke, heart attack, or end organ damage)

2. Uncontrolled bleeding

3. Blood or local skin infection

4. Loss of access in a difficult venous access patient

Procedure:

A. Externally accessible central venous line or peripheral inserted central catheter:

1. Assemble necessary equipment

    a. Appropriate PPE

    b. Two 10 cc syringes; 1 empty and 1 with 10cc NS

    c. IV tubing and fluids

    d. Alcohol prep pads

2. Educate the patient on the procedure.

3. Perform hand hygiene and don exam gloves

4. Disconnect any existing IV lines

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5. Prep injection caps by vigorously scrub top and sides of needleless connector hub with alcohol prep pad using friction and a twisting motion for no less than 15 seconds.

6. Allow to completely air dry

7. Assess patency and flush IV catheter prior to medication administration:

8. Attach empty 10 cc syringe and unclamp catheter

9. Withdraw 5 cc of blood and discard. If resistance met, discontinue procedure

10. Slowly inject 5-10 cc of normal saline with prefilled syringe. If resistance met, discontinue procedure

11. Use a new alcohol prep pad to clean the needleless connector using friction and a twisting motion for no less than 15 seconds and allow to completely air dry and attach IV tubing. Once flowing well, can use for medication administration

12. Closely monitor site.

13. Medication Administration:

a. Connect the medication syringe or administration set maintaining sterility of syringe or line tip.

b. Administer medication.

14. Post Medication Administration/Flush:

a. Discard supplies

b. Remove Gloves

c. Performs hand hygiene

d. Documents procedure

Special Considerations:

1. CVADs are aspirated for a blood return and flushed prior to each infusion to assess catheter function and prevent complications.

2. CVADs are flushed after each infusion to clear the infused medication from the catheter lumen, thereby reducing the risk of contact between incompatible medications.

3. Single-use flushing and locking syringes are used.

4. Single use normal saline flushing syringes are never re-used even on same lumen.