



**REGION 11
CHICAGO EMS SYSTEM
PROCEDURE**

Title: Accessing Indwelling Catheters

Section: Medication Administration/Access

Approved: EMS Medical Directors Consortium

Effective: August 1, 2022

ACCESSING INDWELLING CATHETERS - ALS

INDICATIONS

- Vascular access in a critical patient including shock, peri-arrest, or cardiac arrest after two unsuccessful peripheral intravenous attempts or intraosseous attempts.

CONTRAINDICATIONS

- No blood return on access
- Known infection in line

EQUIPMENT

- Saline flush – 0.9 Sodium Chloride Injection, 10 mL, pre-filled syringe
- Alcohol wipes

PROCEDURE

1. Apply personal protective equipment: gloves.
2. For administration of IV medication or fluid, check the five rights of medication administration.
 - a. Right patient
 - b. Right medication
 - c. Right dosage/concentration
 - d. Right time
 - e. Right route
3. Determine appropriate catheter type and site based on reference below.
4. Prepare supplies for medication administration or IV fluids.
5. Remove any cap on the end of the catheter.
6. Wipe catheter site with alcohol swab.
7. Attach saline flush and attempt aspiration of blood from catheter.
8. If no blood is aspirated, gently flush with 5 ml of normal saline. If any resistance is met, stop procedure.
9. If the catheter flushes easily, remove the syringe from the line.
10. Reaffirm medication with Medication Administration Cross Check (MACC).



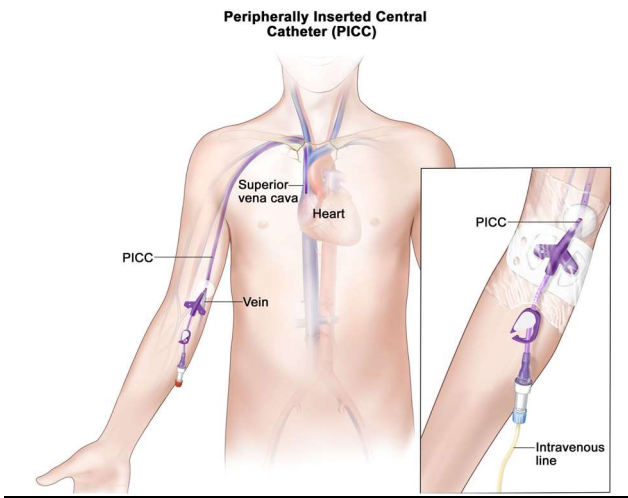
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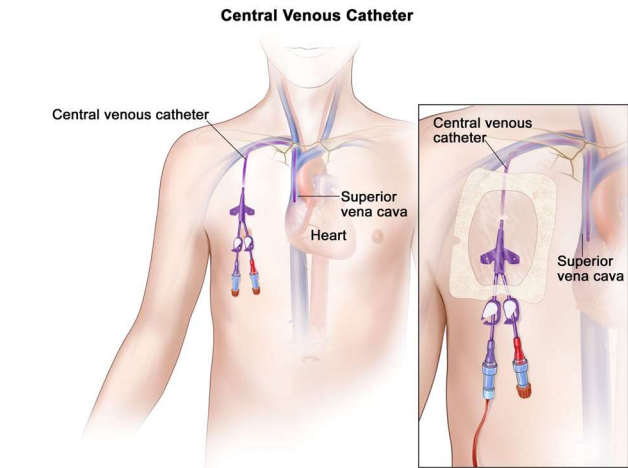
11. Administer medication or IV fluids as indicated.
12. Assess patient for desired effect and side effect.
13. Document the medication dose and clinical response.

INDWELLING CATHETER TYPES

1. **PICC (Peripherally Inserted Central Catheter)¹**: Long catheter into a vein in the arm with the tip of the catheter positioned in central circulation, may have 1 or 2 ports.



2. **Central Venous Catheter¹**: Catheter placed in large vein of the neck, under the clavicle or in the groin, may have multiple ports.



¹ Image courtesy of [National Cancer Institute](https://www.nationalcancerinstitute.gov)



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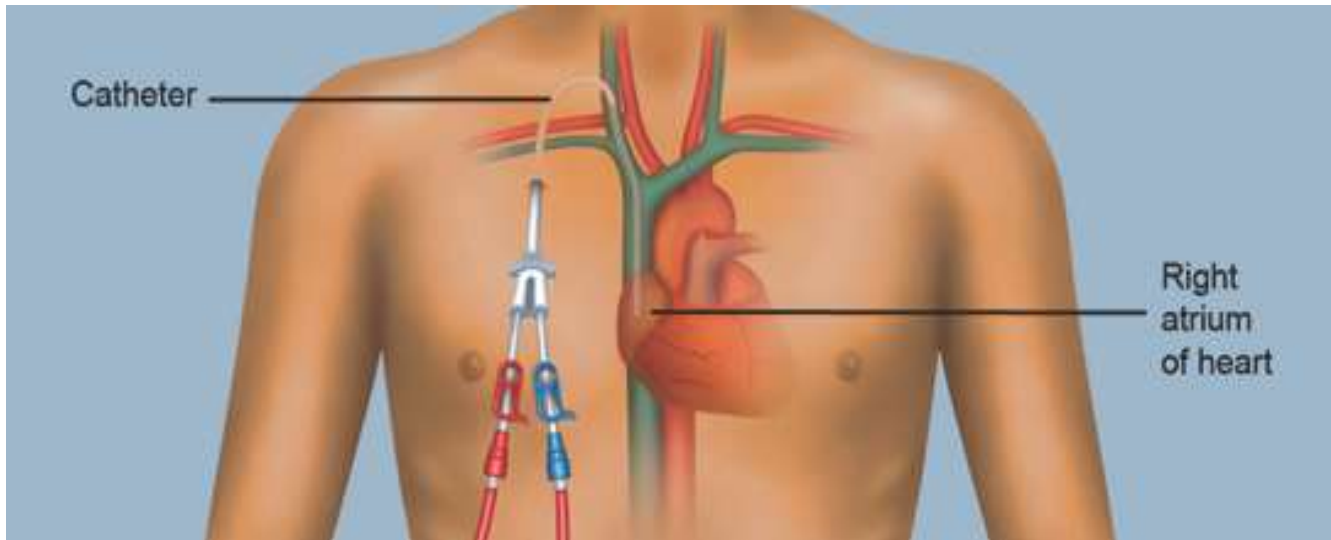
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- Dialysis Catheter²:** Surgically implanted device used to access the vasculature for hemodialysis. The catheter has a red port which indicates use for dialysis. This catheter should only be used for vascular access during cardiac arrest.



² [Image courtesy of Fresenius Kidney Care](#)