

# Review Unique Considerations About Midline IV Catheters

**Pharmacy techs want to know if midline IV catheters are considered peripheral lines or central lines...or somewhere in between.**

It's common to see peripheral IV (PIV) lines...small IV access devices typically placed in the hands or arms to give IV meds.

On the other hand, central lines travel into deeper and larger blood vessels in the chest, near the heart. Examples include Broviac lines, peripherally inserted central catheters (PICCs), etc.

Recognize that midlines are still considered PIV lines...they don't get close enough to the heart to be considered central lines. But they're still longer than typical PIVs (8 to 25 cm versus 2 to 6 cm).

Midline IVs are usually inserted into the crook of the elbow...and the line usually ends near the armpit.

Know that midline catheters tend to have lower failure rates than shorter PIVs. This allows midlines to stay in longer...up to 30 days...whereas shorter PIVs only last up to about 4 days.

See if your hospital has a guideline about midline catheters to standardize patient eligibility, med restrictions, etc.

For example, you may hear about a midline placed for specific patients needing 5 days of IV meds (prolonged IV antibiotics, etc).

Be aware that certain meds should NOT be given via a midline IV. The line's deep location can mask serious blood clots, irritation, etc.

For example, watch out for continuous vesicants or irritants (chemo, etc)...parenteral nutrition...and meds with extreme pH or osmolarity, such as pentobarbital or 3% sodium chloride.

Plus some hospitals don't allow giving vasopressors (epinephrine, etc) via midlines...even if pressors are allowed through PIVs. Safety evidence is limited for midline pressors.

Check with your pharmacist if you should place "For central line use only" labels on certain meds so that they aren't given through a midline.

Keep in mind that midline IVs also require "locking"...filling with saline or heparin after each use to keep it open and usable.

Double-check concentrations when refilling heparin lock products in dispensing cabinets, due to the risk of 10-fold errors (100 versus 10 units/mL, etc). Use barcode scanning technology to help avoid mix-ups.

Note that IV lines can cause an "extravasation" where medication accidentally leaks out of an IV line...and may damage nearby tissues.

Review our *Management of Non-Chemo Drug Extravasation* chart with your pharmacist to see if any rescue meds (hyaluronidase, etc) should be loaded in unit dispensing cabinets for quick access.

## Key References:

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