

MIDLINE CATHETER (MC)

A **Midline Catheter (MC)** is a vascular access device (VAD) inserted into a peripheral vein (basilic, cephalic, or brachial) to provide infusion therapy. A MC requires ultrasound-guidance by a qualified provider.

Guidelines for the Prevention of Intravascular Catheter-related Infections

- Use a midline catheter instead of a peripheral intravenous (PIV) catheter when the duration of IV therapy will likely exceed six days
- Assess daily whether a midline catheter is needed
- Evaluate the catheter insertion site daily and document findings
- Stop the infusion and notify practitioner if the patient develops signs of phlebitis (warmth, tenderness, erythema, or palpable venous cord), infection, or a malfunctioning catheter

Care and Maintenance

Change dressing every 7-10 days, or when it gets dirty or becomes loose. The following will be performed:

- Wash hands and use aseptic technique
- Check position, reflux, catheter status and insertion point
- Flush with 10 ml of saline solution (push-stop technique with positive pressure)
- Seal with saline solution or citrate according to protocol (with the same technique as above)
- Use alcohol-chlorhexidine gluconate (CHG) cleanser per manufacturer's instructions to cleanse the insertion site
- Change dressing and connector per protocol
- Label dressing with date and time of dressing change, and initials of staff performing change
- Document the procedure

• This material was prepared by Health Quality Innovators (HQI), a Quality Innovation Network-Quality Improvement Organization (QIN-QIO) under contract with the Centers for Medicare & Medicaid Services (CMS), an agency of the U.S. Department of Health and Human Services (HHS). Views expressed in this material do not necessarily reflect the official views or policy of CMS or HHS, and any reference to a specific product or entity herein does not constitute endorsement of that product or entity by CMS or HHS. 1250W/HQI/QIN-QIO-0581-08/08/23

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### Injection Caps

- Clean injection caps/hubs with 70% alcohol or alcohol based CHG swab pads with every port access following manufacturer's instruction
- Caps used as passive disinfection should be replaced every time a port is accessed
- Flush ports with 0.9% Sodium Chloride (NACL) or Heparin per protocol/order
- When midline is not used for continuous infusion, flush ports with 10mL of 0.9% NACL before and after administration of medications and solutions
- When infusion is continuous, needleless connector tubing should be changed every 4 days (96 hours)
- Needleless connectors should be changed as soon as possible when soiled or compromised

### Catheter Tubing

Change IV tubing every 4 days (96 hours) when the midline is continually in use

- Label tubing with the date, time, and initials of staff replacing tubing

**The most common midline catheter complications include phlebitis, infection, occlusion, thrombosis, and extravasation.**



Guidelines for the Prevention of Intravascular Catheter-Related Infections | CDC



Midline Catheter: Placement and Maintenance Protocol | Vascufirst



ICCs and Midline Catheters | UWMedicine



The Use of Midline Catheters in the Adult Acute Care Setting | ResearchGate



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