

Needleless Device & Extension Tubing Change

PURPOSE

To maintain the sterility of a closed system and define when needleless devices and tubing are changed.

POLICY

1. When appropriate, the RN shall instruct the patient / caregiver on this procedure.
2. Needleless systems are required for accessing any IV line.
3. All needleless connectors shall be of luer-lock design to ensure a secure junction.
4. Any time a needleless device is removed from a catheter, it shall be replaced with a new sterile device.
5. The needleless connector shall be disinfected prior to each access.
6. Needles shall not be used to access catheters, administration sets, access sites, or needleless connectors.
7. The needleless device shall be changed when blood is drawn through the device or when residual blood remains in the device. Exception: devices where the manufacturer does not recommend change of device after blood draw.
8. Open-end catheters shall be clamped prior to changing the needleless cap and extension set. The clamp should be opened once the procedure is completed. Valved catheters do not need to be clamped.
9. Needleless devices shall be changed as recommended by the manufacturer, or by using the following guidelines:
 - Peripheral – each time a new cannula is inserted or if the integrity of the cap is compromised.
 - Midline / PICC – every 7 days or more frequently as indicated by manufacturer's specifications or if the integrity of the cap is compromised.
 - Subclavian / Jugular (non-tunneled) – every 7 days or more frequently as indicated by manufacturer's specifications or if the integrity of the cap is compromised.
 - Tunneled Catheter – every 7 days or more frequently as indicated by the manufacturer's specifications or if the integrity of the cap is compromised.
 - Implanted Port – every 7 days or more frequently as indicated by the manufacturer's specifications or if the integrity of the cap is compromised.
 - Epidural Catheter – in conjunction with filter (refer to manufacturer's guidelines for frequency) and if the integrity of the cap is compromised.

Needleless Device & Extension Tubing Change

11. Only luer lock devices and extension tubing shall be used. The change of the extension tubing shall be:
 - Peripheral – with the change of the catheter or at least every 7 days.
 - Midline / PICC – if added to the catheter during insertion using sterile technique, it does not need to be changed for 7 days. If the integrity of the extension set is compromised, it should be changed immediately, otherwise it is to be changed with the weekly PICC dressing change.
 - Subclavian / jugular – changed every 7 days with needleless device change.
 - Tunneled catheter (use optional) - changed every 7 days with cap / needleless device change.
 - Implanted port (use optional) – changed every 7 days with cap / needleless device change.

EQUIPMENT:

Liquid soap (regular or antimicrobial) and sanitizing gel

Alcohol swabs (3)

Needleless device (1 for each lumen) Swab Cap (1 for each lumen)

Syringe filled with heparin or saline (1 for each lumen)

Tape

Primed extension tubing (1 for each lumen if applicable)

PROCEDURE

1. Explain procedure to patient.
2. Wash hands thoroughly and dry with a clean paper towel. Use sanitizing gel as needed.
3. Assemble equipment on a clean surface.
4. Cleanse junction site between the needleless device (or extension tubing) and catheter with 3 alcohol swabs or other disinfectant product for 1 full minute or per manufacturer's recommendation.
5. Clamp catheter if open-ended, or extension tubing. Remove needleless device and luer lock new needleless device (or extension tubing) into place.
6. Secure junctions with tape.
7. Flush per appropriate policy. Attach new Swab Cap.

Needleless Device & Extension Tubing Change

8. Document procedure in the patient's medical record.

RESPONSIBILITY

The Clinical Specialist has responsibility for approval of, compliance with, and revisions to this policy.

MODIFICATION/REVISION

This policy is subject to modification or revision in part or its entirety to reflect changes in conditions subsequent to the effective date of this policy.

REFERENCES

1. Infusion Nursing Standards of Practice – Revised 2016; Journal of Infusion Nursing, Supplement to January/February 2016, Volume 39, Number 1S.
2. Infusion Nursing: An Evidence-Based Approach, Third Edition edited by Mary Alexander, Ann Corrigan, Lisa Gorski, Judy Hankins, and Roxanne Perucca.
3. INS (Infusion Nurses Society) Policies and Procedures for Infusion Nursing, 3rd Edition.