Is your skin-prep technique up-to-date?

AN EFFECTIVE skin preparation agent cleans away microbes, then continues to inhibit pathogen growth between dressing changes. For central venous access devices (CVADs), this has traditionally been accomplished with three alcohol swabsticks and three povidone-iodine swabsticks applied in concentric circles from the insertion site outward. But new guidelines from the Centers for Disease Control and Prevention (CDC) recommend a different agent and a different technique.

Based on research studies, the CDC now strongly recommends using 2% chlorhexidine solution for skin antisepsis. Two-percent chlorhexidine solution has proven six times more effective than alcohol and povidone-iodine in cleaning the skin and in inhibiting microbial growth for days afterward. (See Comparing Common Antiseptic Agents.) In two studies measuring persistent efficacy, chlorhexidine demonstrated significant residual antimicrobial effect over 5 days and was more effective than isopropyl alcohol, alcohol, or povidone-iodine alone.

However, although a 2% chlorhexidine-based preparation is preferred, the CDC still considers tincture of iodine or 70% alcohol as acceptable prepping alternatives.

Here’s the recommended way to prep the skin for CVAD insertion or to clean it during a dressing change:

* Observe proper hand hygiene procedures, washing your hands with conventional antiseptic soap and water or with a waterless alcohol-based gel or foam.

* Establish maximum sterile barriers. Use aseptic technique, including a sterile gown, large sterile drape, gloves, mask, and a hair covering.

* Use a 2% chlorhexidine solution preparation on a swabstick to disinfect the skin. With back-and-forth friction, scrub to reach into the cracks and crevices and continue for a full 60 seconds. Allow the antiseptic to remain on the insertion site and air dry before catheter insertion.
After CVAD insertion, secure and dress the catheter according to facility policy and procedure. The CDC guidelines recommend using a sterile gauze or a sterile, transparent, semipermeable dressing to cover the catheter site. Label the dressing with the date and document the procedure in the patient record.

On short-term CVAD sites, replace gauze dressings every 48 hours and transparent dressings at least every 7 days for adults. The CDC guidelines also recommend changing the dressing when it becomes damp, loose, or soiled or whenever you need to inspect the site.

By following the CDC’s recommendations, you’ll be up-to-date with your skin-prep technique and may help your patient avoid infection.

SELECTED REFERENCES


BY NANCY L. MOUREAU, CRNI, BSN