Standard 44: Dressings
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Standard 44.1: A sterile dressing shall be applied and maintained on access devices.

Standard 44.2: The dressing shall be changed at established intervals and immediately if the integrity becomes compromised.1

As every infusion nurse knows, maintaining a clean, dry, and occlusive dressing is important for protecting the catheter insertion site and reducing the risk for infection. Dressing changes are performed at the time of placement and subsequently in conjunction with regular site care, which includes site assessment and skin disinfection before placement of the fresh dressing.

Dressing choices include the transparent semipermeable membrane (TSM) dressing or a simple gauze dressing. The research supporting the choice of dressing is limited. The evidence does not support one choice over another. In a systematic review of controlled trials that compared the effects of gauze and tape versus transparent dressings, there was no evidence of difference in the incidence of infectious complications between dressing types.2 The studies were from small samples, however, and there was a high level of uncertainty regarding risk for infection related to type of dressing. The authors stress the need for more research.

Based on this research, choose the dressing based on patient preference and needs. The Practice Guidelines under the INS Standard recommend changing the TSM dressing at least every 7 days and changing gauze dressings every 48 hours. In the event of drainage, site tenderness, other signs of infection, or loss of dressing integrity, the dressing should be changed sooner, allowing the opportunity to closely assess, cleanse, and disinfect the site. These guidelines are in line with the Centers for Disease Control and Prevention Guidelines for prevention of catheter-related infections.3

Advantages to the TSM dressing include the abilities to visualize the insertion site on an ongoing basis and maintain cost-effectiveness because of less frequent changes. A weekly home or outpatient visit for site care and dressing change is cost-effective and convenient for the patient who requires long-term vascular access. The patient also can easily check the catheter insertion site every day and report any changes, such as redness or drainage.

Gauze dressings are an appropriate choice for the patient who experiences site drainage, perspires excessively, or has a sensitivity reaction to TSM dressings. Use a gauze dressing on a freshly placed access device when there is bleeding for the first 24 hours or so. Often, a transparent dressing is placed over the gauze dressing to secure the gauze dressing. Use of gauze under a TSM dressing is not an uncommon practice, and there is often a misconception, especially among non-infusion nurses, that the dressing is then a TSM dressing and is changed every 7 days. If gauze is used under the TSM dressing, it is considered a gauze dressing and is changed every 48 hours. This practice is clearly addressed under the Practice Criteria of Standard 44. The infusion nurse’s knowledge of the INS Standards of Practice is important in ensuring that organizational policies address this issue and provide ongoing education of nursing staff about rationale for practice and dressing change frequency when both types of dressings are used.

Another potential misunderstanding about dressing change frequency may result when a gauze dressing is used under the wings or extension tubing of a noncoring needle inserted into a port and then a TSM dressing is placed to cover the entire site. This is common practice. In the 2006 Standards of Practice, the Standards of Practice Review Committee added an additional practice guideline recommendation under Standard 45, “Implanted Ports and Pumps.” In this case, as long as the gauze does not obscure or cover the catheter-skin insertion site, it is not considered a gauze dressing. The TSM dressing is then changed at least every 7 days, which is addressed under Practice Criteria 45 on page S46 in the Standards.
Finally, antiseptic dressings, such as the chlorhexidine-impregnated foam dressing, are being used more often as research supports their benefits. A small, round disc is placed around the catheter at the exit site, covered with a transparent dressing, and changed every 7 days according to the manufacturer’s recommendations. In a meta-analysis published in 2006, chlorhexidine-impregnated dressings were found to be effective in reducing bacterial colonization at both vascular and epidural sites and were identified with a trend toward catheter-related bloodstream or central nervous system–related infections. Under INS Standard 56, “Infection,” the Practice Criteria recommend evaluation of technology to control infusion-related infections, including consideration and evaluation of antiseptic-impregnated dressings.

REFERENCES