

2021 Infusion Therapy Standards of Care Tissue Adhesive Review

Each standard is evaluated for the level of evidence supporting that recommendation. Standards with a large body of evidence are identified as Level I or Level II and carry strong practice recommendations. Note the evidence levels for the use of tissue adhesive are predominantly Level I or Level II.

Significant revisions to the vascular access securement standard highlighting tissue adhesive are shared here:

Standard 38 – Vascular Access Securement (Gorski et al., 2021, pp. S108-S111)

This standard indicates that ALL vascular access devices (VADs) should be secured to prevent complications associated with movement at the insertion site and unintentional loss of access. The standard also recommends that the securement technology not interfere with the ability to routinely assess and monitor the access site.

- Tissue adhesive is listed as one of the four approved securement technologies (Level I).
- All securement devices are seen as an adjunct to the primary dressing. The effectiveness of combining securement technologies is still unclear.
- Tissue adhesive in addition to the primary dressing for peripheral IV's (PIVCs) is recommended to improve catheter dwell times and decrease failure rates (Level II). Use a securement technology for long PIVCs and midline catheters (Committee Consensus).
- Use of tissue adhesive as an alternative to sutures for PICCs is considered to be a safer alternative and reduce risks of complications, including infection and dislodgement (Level I).
- Consider the benefits of tissue adhesive as an adjunct to the primary method of dressing and securement to provide immediate hemostasis at the insertion site, which can prolong intervals between dressing changes (Level II).
- Tissue adhesive has been demonstrated to create a barrier to microorganism growth in the catheter tip (Level II).
- Tissue adhesive along with sutures or other securement technologies may reduce failure rates with nontunneled CVADs in the neck and groin (Level III).
- Tissue adhesive should be reapplied at each dressing change (Level I).

Standard 42 – Vascular Access Site Assessment, Care and Dressing Changes (Gorski et al., 2021, pp. S119-S121)

This standard describes recommendations for insertion site assessment and care. Skin antisepsis and dressing changes, should be performed at established intervals and immediately if the dressing integrity becomes compromised (e.g., lifted/ detached on any border edge or within transparent portion of dressing, visibly soiled, presence of moisture, drainage, or blood) or compromised skin integrity is present under the dressing.

- Dressings should be changed at least every 7 days, or immediately if dressing integrity is observed e.g., visibly soiled, presence of moisture, drainage, or blood (Level III).
- TA has shown promising effects in promoting hemostasis post-VAD insertion (Level III).

Standard 50 – Infection (Gorski et al., 2021, pp. S153-S155)

Catheter-Associated Bloodstream Infection (CABSI) is defined by the INS Standards of Practice Committee as bloodstream infections (BSIs) originating from either PIVCs or central vascular access devices (CVADs). Both are equally injurious and can occur during catheter insertion, throughout the catheter dwell time, and through migration of microbes down the catheter tract.

- Noted in the securement standard, tissue adhesive has been demonstrated to create a barrier to microorganism growth in the catheter tip (Level II).