

2024 Infusion Therapy Standards of Care: Tissue Adhesive (TA) 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 36 – Vascular Access Securement (pages S120-S123)

Standard 39 – Vascular Access Device Post-Insertion Care (pages S131-135)

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

A sterile dressing, combined or integrated with a securement device appropriate for patient's condition and patient preference, is maintained on all peripheral and central VADs to protect the site, provide a microbial barrier, and promote skin health and VAD securement.

- Tissue adhesive is listed as one of the four approved securement technologies (Level I).
- Evaluate the use of securement options, such as TA, in addition to a primary dressing for enhanced catheter stabilization for peripheral intravenous catheters (PIVCs), particularly in high-risk patients such as those with difficult intravenous access (DIVA) and prolonged catheter dwell (Level II).
- There is some evidence that additional securement, either an integrated securement device (ISD) or TA for PIVCs reduces complication rates (Level II).
- Evaluate the effectiveness of a combination of securement measures to reduce complication and failure (Level III).
- Use of TA 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).
- TA used in conjunction with sutures might reduce failure and increase dwell time compared to ASDs and traditional sutures alone (Level III).
- Consider innovative securement strategies such as TA or keyhole dressing (foam-bordered dressing with clear membrane window) in addition to the primary dressing for peripheral arterial catheters to reduce failure. Both have demonstrated reduced failure compared to keyhole dressing alone or primary dressing alone (Level III).
- Adding tissue adhesive to the insertion site at the time of insertion may be associated with decreased dressing changes and increased survivability for peripheral as well as central lines secondary to the hemostatic effect of the product (Level II).
- Use a securement method to stabilize and secure VADs considering a bundled approach (Level III).
- Cyanoacrylate tissue adhesive has been associated with improved hemostasis to reduce localized bleeding at the insertion site and a reduction in the need for early dressing changes (Level II).
- Use TA as an adjunct to the primary method of dressing and securement, as it immediately seals the insertion site, prolonging the interval between VAD insertion and the first dressing change (Level III).
- Tissue adhesive has been demonstrated to create a barrier to microorganism growth in the catheter tip (Level IV).
- Tissue adhesive should be reapplied at each dressing change (Level I).
- Dressings should be changed at least every 7 days (except neonatal patients), or immediately if dressing integrity is disrupted (e.g., lifted/detached on any border edge or within the transparent portion of the dressing; visibly soiled; presence of moisture, drainage, or blood) or evidence of compromised skin integrity under the dressing and following manufacturer's instruction for use (Level III).