



Team Name: Critical Care and Medicine Team Team Lead: Regional Director of Acute Care Approved by: Executive Director - Mid	Reference Number: CLI.4510.SG.003 Program Area: Across Hospital Units Policy Section: General
Issue Date: October 14, 2015 Review Date: Revision Date: May 15, 2017	Subject: Topical Skin Adhesive Guideline

STANDARD GUIDELINE SUBJECT:

Topical Skin Adhesive Guideline

PURPOSE:

To outline criteria and application of topical skin adhesive.

IMPORTANT POINTS TO CONSIDER:

- Topical skin adhesive is a fast setting adhesive capable of adhering to most body tissue and many other materials, such as latex gloves and stainless steel. Inadvertent contact with any body tissue, and any surfaces or equipment that are not disposable or that cannot be readily cleaned with a solvent such as acetone should be avoided.
- Topical skin adhesive should not be applied to the eye. If contact with the eye occurs, flush the eye copiously with water. If residual adhesive remains, apply topical ophthalmic ointment to help loosen the bond and contact an ophthalmologist.
- When closing facial wounds near the eye, position the patient so that any run-off of adhesive is away from the eye. The eye should be closed and protected with gauze. Prophylactic placement of petroleum jelly around the eye to act as a mechanical barrier or dam can be effective in preventing inadvertent flow of adhesive into the eye. Topical skin adhesive will not adhere to skin coated with petroleum jelly; therefore ensure there is no petroleum jelly in any skin area where topical skin adhesive adhesion is desired.
- Do not use topical skin adhesive below the skin because the polymerized material is not absorbed by tissue and can elicit a foreign body reaction.
- Topical skin adhesive should not be used in high skin tension areas such as knuckles, elbows, or knees, unless the joint will be immobilized during the skin healing period.
- Wounds should be monitored for signs of infection. Wounds with signs of infection such as erythema, edema, warmth, pain and pus should be evaluated and treated according to standard practice for infection.
- Do not use topical skin adhesive on areas that will be subjected to repeated or prolonged moisture or friction.
- If topical skin adhesive is applied so that large droplets are allowed to remain without being evenly spread, the patient may experience a sensation of heat or discomfort.

PROCEDURE:

Indications for Use:

1. Topical skin adhesive is indicated for topical application only, to hold closed easily approximated skin edges of wounds from surgical incisions, including punctures from minimally invasive surgery, and simple, thoroughly cleansed, trauma-induced lacerations. Topical skin adhesive may be used in conjunction with, but not in place of, deep dermal stitches.

2. Contraindications:
 - any wound with evidence of active infection, gangrene, or wounds of decubitus etiology.
 - on mucosal surfaces or across mucocutaneous junctions (e.g., oral cavity, lips) or on skin which may be regularly exposed to body fluids or skin with dense natural hair.
 - on patients with a known hypersensitivity to cyanoacrylate or formaldehyde.
3. Topical skin adhesive may be used by practitioners and registered nurses working in the emergency department.
4. Prepare the wound for closure by disinfecting, removing foreign bodies with an appropriate cleanser such as normal saline, povidone or chlorhexadine and examining to rule out underlying damage.
5. Use local anaesthetic as needed.
6. Pat the wound dry with dry sterile gauze.
7. With gloved hands, hold the topical skin adhesive glass ampule away from yourself and the patient with the tip up. Squeeze the centre with thumb and forefinger to break the inner glass ampule. Do not repeatedly squeeze the ampule as glass shards may penetrate the outer tube. Invert the ampule and squeeze gently one time to moisten the applicator tip. Topical skin adhesive should be used immediately after crushing the glass ampule since the adhesive will flow freely from the tip for only a few minutes.
8. Working with the wound surface as horizontal as possible, use gloved fingers or sterile forceps to hold the dry, clean wound edges together.
9. Apply topical skin adhesive using gentle brushing strokes. Do not squeeze the applicator while applying. Apply one thin layer and continue holding for 30 seconds of drying time. Apply a second thin layer. Additional layers may be applied as desired, waiting 30 seconds between layers.
10. Maintain manual wound approximation for 60 seconds after the final layer of topical skin adhesive has been applied.
11. Note: Topical skin adhesive polymerizes through an exothermic reaction. If it is applied so that large droplets are allowed to remain without being evenly spread, the patient may experience a sensation of heat or discomfort.
12. Excessive pressure of the applicator tip against the wound edges or surrounding skin can result in forcing the wound edges apart and allowing topical skin adhesive into the wound. This could delay wound healing and/or result in adverse cosmetic outcome.
13. Full apposition strength is expected to be achieved about 2.5 minutes after the final layer is applied, but adhesive may remain tacky for up to approximately 5 minutes.
14. Topical skin adhesive is packaged for single patient use. Discard unused portion.
15. Do not apply liquid or ointment medications onto wounds closed with topical skin adhesive as this can weaken the polymerized film leading to wound dehiscence.
16. Protective dry dressings such as gauze, may be applied only after topical skin adhesive is completely solid, and no longer tacky to the touch.
17. Instruct patients not to pick at the polymerized film of topical skin adhesive. This can disrupt its adhesion and cause dehiscence of the wound. A protective dressing can be used to discourage picking.
18. Provide patient/guardian with printed instruction sheet entitled: Care Following Topical Skin Adhesive (CLI.4510.SG.003.SD.01). Review sheet with patient/guardian to ensure understanding.
19. Patient should be instructed that until topical skin adhesive film sloughs naturally (usually in 5-10 days), there should be only transient wetting of the treatment site. Patients may shower and bathe the site gently. The site should not be scrubbed, soaked or exposed to prolonged wetness until after the film has sloughed naturally and the wound has healed closed. Patients should be instructed not to go swimming during this period.
20. If removal of topical skin adhesive is necessary for any reason, carefully apply petroleum jelly or acetone to the topical skin adhesive film to help loosen the bond. Peel off the film, do not pull the skin apart.

EQUIPMENT / SUPPLIES NEEDED:

- Topical skin adhesive supplied as a sterile pre-filled single use applicator.
- Cleansing solution such as normal saline or chlorhexadine
- Sterile gauze
- Sterile gloves
- Topical anesthetic *if needed*

SUPPORTING DOCUMENTS

[CLI.4510.SG.003.SD.01](#) Care Following Topical Skin Adhesive

REFERENCES:

High Viscosity DERMABOND* Topical skin adhesive (2-Octyl Cyanoacrylate) instruction sheet: Ethicon, Inc. a Johnson & Johnson company. Somerville, New Jersey 08876-0151. 2000.