LiquiBand® Flow Control
Clinical Update

Precision wound closure with LiquiBand® Flow Control

www.liquiband.com
Topical Cyanoacrylate Adhesives (TCA’s) are increasingly used in the Accident and Emergency setting for non-invasive closure of minor skin wounds instead of traditional methods of sutures, staples or strips. TCA’s are often the preferred method of closure for simple, low tension, low flexion wounds but in some areas, such as the facial triangle, some clinicians have been reluctant to use TCA’s due to the potential risk of TCA getting into the eyes, mouth or nose.

*LiquiBand® Flow Control* extends the clinical indications for use of TCA’s by incorporating a Flow Control nylon tip, which acts as a reservoir, allowing the user to adopt a more controlled, precise and hence safer application of the TCA. This makes *LiquiBand® Flow Control* more suitable for use on children/unco-operative patients, especially for wound closure within the facial triangle or where application is difficult.

The *LiquiBand® Flow Control* tip also allows the clinician to precisely apply a controlled amount of TCA along the length of the wound using a gentle swiping technique. This helps ensure effective wound closure and forms a microbial barrier.

**Benefits of TCA’s for Wound Closure**
- Strong and secure closure
- Excellent cosmesis
- Occlusive microbial barrier and mild anaesthetic properties
- No risk of needlestick injury
- Cost-effective e.g. no return visit for removal of sutures

**Benefits of LiquiBand® Flow Control**
- Precision applicator tip
- Controlled application of TCA
- Ability to close wound by swipe technique
- Improved patient safety
- More suitable for use within facial triangle

**Strong and Secure Closure**
- As strong as sutures within 12 hours.¹
- Only one simple application required.
- No reported significant difference in dehiscence rates compared to sutures.²,³
- Faster setting than octyl-cyanoacrylates.²

**Quick and Easy Wound Closure**
- Non-invasive - no requirement for a local anaesthetic or theatre visit.
- Dries in seconds and only requires one layer application.
- Can assist in managing 4 hour A&E breaches by offering faster patient turnaround.
Excellent Cosmesis and Improved Patient Safety

- TCA’s have been shown to provide as good as or better cosmetic results than sutures.\(^1,3\)
- No risk of suture cross-hatching/scarring.
- The \textit{Flow Control} tip gives precision application and even distribution.
- Suitable for wounds in the facial triangle by reducing the risk of getting glue into patients eyes, nose or mouth.

Reduced Trauma to the Patient

- No needles used.
- Improved patient hygiene. Patient can lightly shower or clean the area.
- No need for general anaesthetic or overnight stay.
- No removal or added burden of arranging and travelling to practice nurse to remove sutures.

<table>
<thead>
<tr>
<th></th>
<th>Sutures</th>
<th>LiquiBand\textsuperscript{®} Flow Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sutures</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Local Anaesthetic</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>General Anaesthetic</td>
<td>Sometimes</td>
<td>No</td>
</tr>
<tr>
<td>Cleansing Solution</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Removal</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Secondary Dressing</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>Sterile Area Pack</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>LiquiBand\textsuperscript{®} Flow Control</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Equipment</td>
<td>6 Pieces</td>
<td>3 Pieces</td>
</tr>
</tbody>
</table>

Reduced Risk of Needlestick Injury

- Overall, sutures account for 19% of all hospital needlestick injuries.
- Removes the requirement for needles and sharps reducing the risk of exposure to blood borne viruses.
- Increases clinician safety ensuring confidence and peace of mind.

Reduced Infection Risk

- \textit{LiquiBand\textsuperscript{®} Flow Control} forms a microbial barrier.
- No suture tracks or knot sites.
- N-butyl cyanoacrylates exhibit bacteriostatic properties against gram-positive strains.\(^4\)
- No foreign body (i.e. suture) in the wound.

1. Wound Preparation

Clean and dry the wound thoroughly. Check for foreign bodies. Ensure haemostasis has been achieved and the wound edges oppose readily.

2. Open \textit{LiquiBand\textsuperscript{®} Flow Control} Ampoule

Open the foil pouch and dispense ampoule and applicator. Firmly hold the neck of the ampoule and apply a twisting action to the winged cap to separate.

3. Fit the \textit{Flow Control} Applicator

Hold the ampoule by the wings. Fit the Flow Control Safety applicator on to the ampoule using a twisting action.

4. Application

Hold the wound edges tight together with fingers or forceps. Apply \textit{LiquiBand\textsuperscript{®} Flow Control} adhesive along the length of the wound, either intermittently or in a continuous line. Avoid adhesive entering the wound. Continue to hold wound edges together for up to 30 seconds to allow adhesive to set.

5. Wound Dressing

\textit{LiquiBand\textsuperscript{®} Flow Control} tissue adhesive seals the wound and acts as an occlusive barrier to micro-organisms and consequently no secondary dressing is necessary.

6. Disposal

Dispose of the applicator and ampoule into a sharps bin or clinical waste container.
**Indications**

- **LiquiBand® Flow Control** is indicated for topical closure of the skin in clean, fresh wounds with easily apposed edges.
- **LiquiBand® Flow Control** should be applied by trained medical or nursing staff.

**General Guidance**

**LiquiBand® Flow Control** can be used on:

- Fresh wounds - No greater than 6 hours old from inception to cleaning.
- Clean wounds - Cleansing, foreign body removal, or debriding should be conducted before closing to reduce the risk of infection.
- Straight wounds - Sharp objects usually produce straight edged wounds, however, jagged edges may require attention before closing, therefore uncomplicated lacerations are more suitable.
- Deep wounds - Wounds of any depth can be closed ensuring that any cavities, or ‘dead space’ are sutured subcutaneously.
- Flap wounds - The wound must be debrided and de-fatted prior to closure by spot welding the flap in place. The **LiquiBand® Flow Control** applicator is ideal for this type of wound.

- Facial wounds - When closing wounds near the eye, position the patient such that if adhesive is over applied any excess will run away from the eye. The eye should be closed and protected with gauze. Petroleum Jelly placed around the eye to act as a barrier is recommended to prevent any excess adhesive from running into and bonding the eye closed. If **LiquiBand® Flow Control** gets into the eye, immediately rinse with water to lessen the chance of adhesion.

**Patient Advice**

- The skin glue will form a scab over the wound which should not be picked off. It will flake off naturally as new cells regenerate underneath. This should take between 5 and 14 days.
- The skin glue is water resistant but should be kept clean and dry, although light showering is permitted and the wound should be patted dry.
- The skin glue should not be immersed in water for long periods of time.
- If the appearance of the wound changes or becomes painful the patient should seek medical advice.

**Contraindications**

- Single use device, do not use on multiple patients.
- Do not apply to internal organs, blood vessels, nerve tissue or mucous membranes.
- Do not apply to infected or chronic wounds.

**LiquiBand® Flow Control** should not be used on:

- Animal or human bites or scratches.
- Crush, puncture or contaminated wounds.
- Wounds located in or near the mucosa.
- Wounds over joints.
- Do not use internally.
- Patients with known cyanoacrylate allergy.

**REFERENCES:**

4. Howell, J; Comparison of Effects of Suture and Cyanoacrylate Tissue Adhesive on Bacterial Counts in Contaminated Lacerations; Antimicrobial Agents and Chemotherapy, American Society for Microbiology, Vol 39 No2 Feb 1995 Pg559-300
5. Data on File Advanced Medical Solutions