A new look at IV site protection

Technical Brochure
**3M™ Tegaderm™ CHG**

Combining the powerful antimicrobial activity of Chlorhexidine Gluconate with the high performance of Tegaderm™ dressing. It has been specially developed to reduce skin flora which is the most common source of CLA-BSI.

**Effective antimicrobial action**
The innovative CHG gel pad provides powerful antimicrobial action directly at the insertion site to suppress skin flora.

**Transparent**
The CHG gel pad and the Tegaderm™ dressing are transparent, allowing permanent visual inspection of the IV site without having to change the dressing.

**Long weartime – Continuous securement**
Ideal for Central Venous Catheters (CVCs), Peripherally Inserted Central Catheters (PICCs), Arterial Catheters and Ported Catheters, Tegaderm™ CHG can remain on the IV site for up to 7 days, providing continuous catheter securement.

**Integrated Design**
As easy-to-use as a Tegaderm™ Transparent Film Dressing, the integrated design minimizes application errors and reduces application steps.

Proven more effective at preventing regrowth of skin flora at Day 7 than the CHG sponge and control dressing on healthy subjects in randomized controlled trial.
N=32 Healthy subjects
Skin prep=70% isopropyl alcohol

Maintains Low Bacterial Counts Over Time
(Mean Log Counts +/- Std. Deviation)

- Baseline
- Post-Prep
- Day 7
- Day 10

![Graph showing bacterial counts over time](image)
Intelligent Infection Prevention at IV Sites

For more than 30 years, 3M has been at the forefront of new solutions for infection prevention. With the new innovative Tegaderm™ CHG dressing, 3M expands the product portfolio and offers a new look at IV site protection.

The trusted Tegaderm™ transparent dressing securely holds catheters in place, providing a waterproof and breathable barrier to external contaminations including liquids, bacteria and viruses*, while minimizing application errors because of the easy-to-use frame and innovative shape.

The innovative transparent CHG gel pad is soft and conformable, maintaining intimate contact with the skin, providing consistent and continuous antimicrobial action over time.

* Laboratory testing has proven Tegaderm™ and Tegaderm™ HP film dressings provide a viral (HIV-1 and HBV) barrier while dressings remain intact without leakages.
IVs: An Access Point for Microorganisms

The cost of central line associated bloodstream infection (CLA-BSI) is substantial in terms of morbidity, mortality and financial resources.

A major concern for infection prevention is to reduce the risks of infections associated with intravascular devices. Research shows that CLA-BSIs prolong hospitalization to an average of 20 days and significantly increases treatment costs. It is recognized that 30% – 40% of all nosocomial infections are blood-stream infections, and these infections are associated with the greatest mortality (25%). The incidence of CLA-BSI rates differ from country to country and from ward to ward in the hospital. The biggest challenge facing clinicians focused on the prevention of CLA-BSI is the reduction of skin flora.

Chlorhexidine Gluconate

In use for over 50 years, CHG has proven to be an effective antimicrobial.

The resident skin flora of a patient consists of a complex bacterial community and is considered to be a major risk factor for CLA-BSIs. CHG is a well-known antiseptic agent with broad spectrum antibacterial and antifungal activity. CHG is only minimally affected by the presence of organic matter, including blood, making it a powerful antiseptic for insertion sites.

Tegaderm™ CHG: proven effectiveness against the following pathogens:

- Staphylococcus epidermidis
- Staphylococcus aureus
- Enterococcus faecium
- Enterococcus faecalis
- Klebsiella pneumoniae
- Pseudomonas aeruginosa
- Acinetobacter baumanii
- Serratia marcescens
- Escherichia coli
- Enterobacter cloacae
- Candida albicans

Most catheter-related infections (~60%) are caused by Gram-positive microorganisms belonging to the resident skin flora (mainly coagulate-negative staphylococci and Staphylococcus aureus).
**Tegaderm™ CHG with innovative gel pad**

**Reduces skin flora**

*In vivo* time-kill study challenged CHG dressings on the unprepped skin of healthy subjects. Unprepped skin provided high levels of mixed bacterial populations. Tegaderm™ CHG demonstrated that it is highly effective at reducing skin flora for up to 10 days and also better than CHG sponge for progressive kill of microflora across all time points (Days 1, 2, 4, 7 and 10).

Proven more effective than CHG sponge at reducing skin flora on healthy volunteers for up to 10 days. N=29 Healthy subjects, unprepped skin.

**Greater zone of antimicrobial activity**

The gel pad’s unique size, shape and gel composition provides a greater zone of antimicrobial activity. CHG is able to diffuse under the catheter and protect the skin at both the insertion and suture sites.

![Zone of inhibition – No bacteria growing](image)
Application and Removal Guide

Application

1. Allow all preps and protectants to dry thoroughly before dressing application. Open the package and remove the sterile Tegaderm™ CHG dressing. Peel the liner from the dressing, exposing the adhesive surface.

2. Center the CHG gel pad over the catheter site and smooth down the dressing edge. On sutured catheters, the gel pad can be placed over both insertion and suture sites.

3. Position the dressing so the notch fits snugly around the catheter port and under the hub. The notched portion of the dressing will help to secure the catheter. Slightly overlap the tabs under the catheter to form a tight seal.

4. Slowly remove the frame while smoothing down the dressing edges. Smooth the Tegaderm™ CHG dressing from the centre toward edges using firm pressure to enhance adhesion.

5. Sterile tape strips can be used under the catheter wings or hub to protect the skin, over the catheter wings or hub to enhance catheter stability, or to secure IV tubing or stabilize catheter lumens. Fold edge of sterile tape strip over itself making a small tab for easier removal. Record information on label, remove from frame then place on or near the dressing.

Removal

1. Remove the tape strips used to secure the tubing. Saturate tape with alcohol, if necessary, to assist in loosening the tape strips.

2. Gently grasp an edge of the Tegaderm™ CHG dressing and slowly peel the dressing from the skin, toward the insertion site or in the direction of hair growth. Keep removal “low and slow.” A medical adhesive solvent may be used to facilitate removal, but is not necessary.

3. As the dressing is peeled back toward the catheter site, place a thumb or forefinger on the gel pad. To facilitate removal, swab or wipe the area underneath the gel pad with alcohol or sterile normal saline. This will temporarily release the gel pad adhesion from the catheter. The gel pad should remain intact and remove easily if these recommendations are followed.

Photos have been taken with ARROWgård Blue PLUS® Central Venous Catheter (Trademark of Arrow Inc.)
The Benefits of a Trusted Tegaderm™ Dressing

For over 25 years the Tegaderm™ brand has stood for trustworthiness, dependability and innovation.

The specific characteristics of Tegaderm™ Dressings provide clinicians with outstanding advantages in catheter securement and infection prevention of IV Sites:

- **The semi-permeable polyurethane film** permits vapour and oxygen exchange and provides a barrier to external contaminants including liquids, bacteria and viruses.*

- **The latex-free adhesive** ensures the right balance between securely holding catheters in place and being gentle to the skin.

- **The transparent dressing** enables continuous visual inspection of the catheter site.

- **The intuitive design** allows hassle-free application and minimizes the opportunity for error.

Ordering information

Tegaderm™ CHG (Chlorhexidine Gluconate) IV Securement Dressing

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References


* Laboratory testing has proven Tegaderm™ and Tegaderm™ HP film dressings provide a viral (HIV-1 and HBV) barrier while dressings remain intact without leakages.
For more information, contact your 3M Health Care Representative or call the 3M Health Care Customer Helpline at 1-800-364-3577.