The evidence is clear.
Comprehensive antimicrobial protection you can count on

Every site presents the potential for infection and other complications. You need evidence-based products and protocols to help you minimize the risks of vascular access complications and help you achieve better patient outcomes. Tegaderm™ CHG Dressings have been the subject of several clinical studies by leading researchers in infection prevention and infusion therapy. These studies demonstrate that Tegaderm™ CHG Dressings not only provide better performance and support clinical best practices, but also demonstrate *in vitro* efficacy against a broad range of microorganisms commonly associated with CRBSIs.

The evidence shows that:

**Comprehensive Protection:**
Tegaderm™ CHG Dressings provide consistently comprehensive antimicrobial protection.

**Continuous Antimicrobial Activity:**
Tegaderm™ CHG Dressings are proven to be as effective as or better than BIOPATCH® Disks at progressive kill of microflora. (page 4)

**Suppresses Regrowth:**
At 7 days, Tegaderm™ CHG Dressings suppress skin flora better than BIOPATCH® Disks. (page 5)

**Complete Site Coverage:**
Tegaderm™ CHG Dressings provide antimicrobial protection under the catheter without requiring moisture. (page 6)

**Consistently Correct Application:**
In a clinical audit, Tegaderm™ CHG Dressings were correctly applied 100% of the time. (page 7)
Growth Inhibition of Microorganisms Involved in Catheter-Related Infections by an Antimicrobial Transparent I.V. Dressing Containing Chlorhexidine Gluconate (CHG)

J.P. Hensler, 3M Health Care, et al. Published: European Society of Clinical Microbiology and Infectious Diseases (ECCMID), May 2009.

STUDY TYPE: In vitro

PURPOSE: To evaluate the antimicrobial activity of the transparent dressing 3M™ Tegaderm™ CHG Chlorhexidine Gluconate I.V. Securement Dressing against microorganisms commonly associated with catheter-related (CR) infections using in vitro zone of inhibition.

KEY FINDINGS:
• Tegaderm™ CHG Dressings demonstrated in vitro antimicrobial efficacy against a broad range of microorganisms commonly associated with CRBSIs.
• Many of the 37 strains tested were resistant organisms, including MRSA, MRSE, VRE, and MDR strains.
• Tegaderm™ CHG Dressings retain their antimicrobial properties over time as demonstrated by the aged dressing’s ability to produce similar zones of inhibition compared to unaged dressings.

37 strains of microorganisms
INCLUDING GRAM POSITIVE BACTERIA, GRAM NEGATIVE BACTERIA AND YEAST.
Tegaderm™ CHG Dressings provide continuous antimicrobial activity

A Novel Integrated Chlorhexidine-impregnated Transparent Dressing for Prevention of Vascular Catheter-related Bloodstream Infection: A Prospective Comparative Study in Healthy Volunteers

Dr. Dennis Maki, University of Wisconsin School of Medicine and Public Health, et al.
Published: The Society for Health Care Epidemiology of America, April 2008.

STUDY TYPE: Clinical study

PURPOSE:
To compare the antimicrobial effectiveness of Tegaderm™ CHG Dressings vs. BIOPATCH® Disks.

KEY FINDINGS:
• Tegaderm™ CHG Dressings are proven to be as effective as or better than BIOPATCH® Disks at persistently reducing microbes at each time point.

Provides Immediate and Persistent Reduction of Microbes

*In vivo kill time of normal flora on unprepped skin on healthy adult volunteers (P=0.08)*
Suppression of Regrowth of Normal Skin Flora Under Chlorhexidine Gluconate (CHG) Dressings Applied to CHG-Prepped Skin

M.H. Bashir, MICROBIOTEST, Inc., et al. Published: American Society for Microbiology (ICAAC) and Infectious Diseases Society of America (IDSA), October 2008.

STUDY TYPE: Randomized clinical trial

PURPOSE:
To compare the skin organism suppression performance of Tegaderm™ CHG Dressings vs. BIOPATCH® Disks.

KEY FINDINGS:
- Skin organisms remain and will regrow even after prepping with a CHG prep.
- Tegaderm™ CHG Dressings had significantly lower skin organism regrowth than a standard transparent adhesive dressing.
- At 7 days, Tegaderm™ CHG Dressings had significantly lower skin organism regrowth than BIOPATCH® Disks.

Maintains Lower Skin Organism Counts
Mean skin organism log count over time

All pairwise testing done against Tegaderm CHG Dressing using a paired t-test with Holm stopwise adjustment for multiple comparisons.

* p-values <0.01  ** represents p-value <0.001
Tegaderm™ CHG Dressings provide antimicrobial protection under the catheter

Antimicrobial Activity of a CHG-Impregnated Gel Pad for I.V. Site Protection

STUDY TYPE: In vitro

PURPOSE:
To compare the in vitro antimicrobial effectiveness of Tegaderm™ CHG Dressings to that of BIOPATCH®.

KEY FINDINGS:
• The Tegaderm™ CHG gel pad provides antimicrobial protection without any additional moisture.
• CHG from the Tegaderm™ CHG Dressings diffused under the catheter.

Provides Antimicrobial Protection without Moisture
Images of agar plates inoculated with S. epidermidis at 24 hours

The darker zone in the center of the Tegaderm™ CHG Dressing photo demonstrates bacterial inhibition.

Tegaderm™ CHG Dressing  BIOPATCH® Disk  Control

Provides Antimicrobial Protection under the Catheter
Images of agar plates inoculated with S. epidermidis

The darker zone demonstrates bacterial inhibition under and around the catheter.
The imprint left by the gel pad is visible in the photo.

Experiment Setup Day 1  Day 3
Tegaderm™ CHG Dressings are designed to ensure consistently correct application

A Different Experience with Two Different Chlorhexidine Gluconate Dressings for use on Central Venous Devices

Cynthia A. Kohan, MT, MS, CIC, John M. Boyce, MD. Published: American Journal of Infection Control (AJIC); 2013; Vol 41, Issue 6, S142–S143; doi http://dx.doi.org/10.1016/j.ajic.2013.03.283

STUDY TYPE: Clinical audit

PURPOSE:
To evaluate frequency of correct application for BIOPATCH® CHG sponge dressings and Tegaderm™ CHG gel dressings by auditing 248 dressing applications.

KEY FINDINGS:
• BIOPATCH® Disks were placed incorrectly 64% of the time despite repeated educational sessions provided to staff responsible for inserting and dressing the catheters.
• Inappropriate placement of the BIOPATCH® Disks included the disk placed on top of the catheter, disk upside down, radial slit not approximated, or disk too small for catheter size.
• Tegaderm™ CHG Dressings were placed correctly in 100% of cases with the CHG gel pad completely covering the insertion site.
• Using Tegaderm™ CHG Dressings, the proportion of insertion sites improperly dressed decreased, and the CHG maintained contact with the patients’ skin.

Higher Percentage of Dressings Correctly Applied

<table>
<thead>
<tr>
<th>Tegaderm™ CHG Dressing</th>
<th>BIOPATCH® CHG Disk</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Applied Correctly</strong></td>
<td><strong>Applied Correctly</strong></td>
</tr>
<tr>
<td>100%</td>
<td>36%</td>
</tr>
<tr>
<td>n=120</td>
<td>n=128</td>
</tr>
</tbody>
</table>
Clinical Evidence

1. Growth Inhibition of Microorganisms Involved in Catheter-Related Infections by an Antimicrobial Transparent IV Dressing Containing Chlorhexidine Gluconate (CHG): J.P. Hensler, 3M Health Care, et al. Published: European Society of Clinical Microbiology and Infectious Diseases (ECCMID), May 2009. [70-2010-7286-8]


5. Suppression of Regrowth of Normal Skin Flora Under Chlorhexidine Gluconate (CHG) Dressings Applied to CHG-Prepped Skin: M.H. Bashir, MICROBIOTEST, Inc., et al. Published: American Society for Microbiology (ICAAC) and Infectious Diseases Society of America (IDSA), October 2009. [70-2010-7144-9]


7. Evaluation of a New CHG Gel Pad Dressing for Catheter Care: Cindy Zehrer, RN, MS, 3M Health Care, et al. Published: Infusion Nursing Society, May 2009. [70-2010-7280-1]


10. Prospective, Randomized, Controlled Trial Assessing the Clinical Performance of a Transparent Chlorhexidine Gel Pad Intravascular Catheter Dressing: Dr. Mark Rupp, University of Nebraska Medical Center, et al. Published: The Society for Health Care Epidemiology of America, April 2008. [70-2009-9667-7]

11. A Different Experience with Two Chlorhexidine Gluconate Dressings for Use on Central Venous Devices: Cynthia A. Kohan, MT, MS, CIC, John M. Boyce, MD. American Journal of Infection Control (AJIC); 2013; Vol 41, Issue 6, S142–S143; doi http://dx.doi.org/10.1016/j.ajic.2013.03.283

12. The Use of Chlorhexidine Gluconate (CHG) on Central Line Insertion Sites: Disk versus Gel Pad Dressing: Susanne Meninger RN, BSN, Floating Hospital for Children at Tufts Medical Center, et al. Published: Association for Vascular Access, September 2009.


To learn more about 3M™ Tegaderm™ CHG Dressings or to schedule a product evaluation, visit us at 3M.com/TegadermCHG