solventum

Solventum Medical Surgical

3M™ Avagard™ (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers

Considerations for use

Meets CDC, FDA and AORN criteria for surgical scrub selection.


3M
NDC 17518-051-01
3M
AVAGARD™
(Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% w/w)
Surgical & Healthcare Personnel
Hand Antiseptic
with Moisturizers
Made in U.S.A. for 3M Health Care, 2510 Conway Ave., St. Paul, MN 55144
1-800-228-3957 www.3M.com © 2012, 3M. All rights reserved.
The shape and colors of the bottle and wall bracket are trademarks of 3M.
Patent: 3M.com/Patents
MAL10110039XC
16 fl oz • 500 mL
REF
9200

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The role of surgical hand scrub and hand antisepsis in preventing infection

Surgical hand antisepsis plays a significant role in preventing healthcare associated infections and surgical site infections and the subsequent morbidity, mortality, and cost associated with them. Handwashing is known to be the single most important action in preventing infection.

The hands of healthcare providers carry microorganisms identified as sources of microbial contamination.[1,2] For healthcare providers, the skin flora isolated from the hands can include coagulase-negative staphylococci (CNS), micrococci, *Staphylococcus aureus*, α-hemolytic streptococci, yeasts, fungi, lipophilic corynebacteria, large-colony diphtheroids, and other gram-positive and gram-negative bacteria.[2,6] Some of these same organisms, notably *S. aureus* and CNS, are also the leading causes of surgical site infections.

Incidence of pathogens isolated in surgical site infections[15]

*Staphylococcus aureus**	20%
Coagulase-negative staphylococci*	14%
Enterococcus faecalis	12%
Escherichia coli	8%
Pseudomonas aeruginosa	8%

*Common skin flora found on the hands.

The cost of infections

Healthcare associated infections

- Approximately 2 million patients per year acquire nosocomial infections[12]
- Estimated cost of these infections is between $4.5 and $10 billion[12,13]
- 60,000 to 80,000 patients die each year due to nosocomial infection[12]

Surgical site infections

- Approximately 500,000 of all nosocomial infections are SSIs[14]
- On average, SSIs result in an additional 7.3 days in the hospital[15]
- The resulting cost is an additional $3,152 per infected patient[15]
- Approximately 10,000 deaths occur annually due to SSIs[13]

To help combat this problem, hand antisepsis is performed to remove or destroy transient microorganisms and for surgical scrubbing, to remove or destroy transient microorganisms and reduce resident flora.[3] Hand antisepsis and surgical scrub agents have been refined over the years, offering increasingly effective and broader spectrum microbial kill, first with povidone-iodine and hexachlorophene, and later, chlorhexidine gluconate.[4]

The effects of traditional scrub agents on skin integrity

Unfortunately, the effects of frequent scrubbing and handwashing can also damage the skin's integrity.[1–3,5–10] The primary function of the skin's stratum corneum is to provide a barrier to moisture, water-soluble chemicals, and microorganisms.[11] Healthy skin needs to be soft, pliable, and hydrated to maintain its barrier function.[11] Fatty acids found in the stratum corneum help the skin maintain its barrier by preventing dehydration.[11] Additionally, these fatty acids have fungicidal and bactericidal activity important to modulating the balance of flora on the skin.[11]

Yet, many of today's antiseptic scrub agents, although highly effective against a broad spectrum of infectious organisms, compromise the integrity of the skin's natural barrier by dehydrating and defatting the skin, resulting in a loss of moisture, pliability, and integrity.[1–3,6,10,16–21] The consequence of damaged skin on the hands of health care providers is that damaged skin can harbor large numbers of microorganisms, shed greater numbers of these microorganisms because of increased desquamation of dry skin, and become a deterrent to good handwashing practices.[1–3,6,8,10]

Damaged hands are very prevalent among health care professionals because of frequent handwashing with harsh agents.[10,19,20] Based on surveys of operating room nurses at the Association of periOperative Registered Nurses (AORN) 1996 and 1997 conferences, approximately 75% of nurses reported having problems with their hands including: dry, scaly, cracked skin; red blotchy skin; or stinging.[22] The frequency of handwashing/scrubbing and the soap/antimicrobial agent used were among the most common reasons cited for damaged skin.[22]

To address this problem, the focus of hand antisepsis is shifting to incorporate maintaining the skin's health and integrity as a preventative measure against infection.[2–4] AORN, in their most recent guidelines, call for the following criteria when selecting an antimicrobial surgical hand scrub:

The surgical hand scrub agent should:

- contain a nonirritating antimicrobial preparation
- significantly reduce microorganisms on intact skin
- be broad spectrum
- be fast acting
- have a persistent effect[1]

Because many surgical scrub and hand antisepsis agents increase the damage to hands as well as the risk for contamination, leaders in infection control now call for increased emphasis on maintaining the skin's natural barrier as an adjunct to antimicrobial activity in preventing infection.[2,10]

Recognized active ingredients provide immediate, persistent and cumulative activity

Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers contains two proven active ingredients to provide immediate, persistent and cumulative activity needed in a surgical hand antiseptic: alcohol for fast immediate broad spectrum kill and chlorhexidine gluconate for persistent and cumulative activity (see chart on following page).

Alcohol

Alcohols are rapidly germicidal when applied to the skin, but according to the FDA, CDC, and AORN they have no appreciable persistent or cumulative activity. In appropriate concentrations, from 60 to 95%, alcohols provide the most rapid and greatest reduction in microbal counts on the skin.

Chlorhexidine Gluconate

Chlorhexidine gluconate's activity is slower than that of alcohols while still providing broad-spectrum activity. Two of the most important attributes of CHG are its persistent activity and its cumulative activity. This cumulative activity is not achieved with one application but builds with repeated daily use.

Definitions

Active ingredient: Per the FDA – According to 21 CFR 210.3(b)(7), an active ingredient is any component of a drug product intended to furnish pharmacological activity or other direct effect in the diagnosis, cure, mitigation, treatment, or prevention of disease.

Inactive ingredient: Per the FDA – According to 21 CFR 210.3(b)(8), an inactive ingredient is any component of a drug product other than the active ingredient.

Immediate activity is a product's ability to provide bacterial kill at 1 minute after the application (criteria established by the FDA).

Persistent activity is a product's ability to maintain low bacterial counts on the skin after a single application for an extended length of time, generally 6 hours (criteria established by the FDA).

Cumulative activity is a product's ability to lower the overall resident bacterial count on the hands when the product is applied repeatedly (11 applications over 5 days – criteria established by the FDA).

Per the FDA, preservative (inactive) levels of ingredients can not contribute to the claimed effects of the product in which they are included.**

** FDA Tentative Final Monograph (TFM) for Health Care Antiseptic Drug Products, Proposed Rule Federal Register, Vol. 43, No. 4 (Friday, January 6, 1978) Code of Federal Regulations 21 CFR Part 333.

Antimicrobial spectrum and characteristics of hand-hygiene antiseptic agents* [39]

From 2002 CDC guideline for hand-hygiene in health care settings

Group	Gram-positive bacteria	Gram-negative bacteria	Bacteria	Fungi	Viruses	Speed of action	Comments
Alcohols	+++	+++	+++	+++	+++	Fast	Optimum concentration 60%-95%; no persistent activity
Chlorhexidine (2% and 4% aqueous)	+++	++	+	+	+++	Intermediate	Persistent activity; rare allergic reactions
Iodine compounds	+++	+++	+++	++	+++	Intermediate	Causes skin burns; usually too irritating for hand hygiene
Iodophors	+++	+++	+	++	++	Intermediate	Less irritating than iodine; acceptance varies
Phenol derivatives	+++	+	+	+	+	Intermediate	Activity neutralized by nonionic surfactants
Triclosan	+++	++	+	– –	+++	Intermediate	Acceptability on hands varies
Quaternary ammonium compounds	+	++	– –	– –	+	Slow	Used only in combination with alcohols; ecological concerns

Note: +++ = excellent; ++ = good, but does not include the entire bacterial spectrum; + = fair; – – = no activity or not sufficient.
*Hexachlorophene is not included because it is no longer an acceptable ingredient of hand disinfectants.

Fast, effective, persistent activity

Fast

In an independent Time Kill Study, Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% , w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers demonstrated rapid antimicrobial kill of a broad spectrum of the infectious organisms tested.[31,32]

The following *in vitro* data are available but their clinical significance is unknown.

Conclusions

- Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers has rapid bactericidal activity against a broad spectrum of microorganisms *in vitro*[31,32]
- 3M™ Avagard™ Hand Antiseptic provides greater than 99% microbial kill in 15 seconds *in vitro*[31]
- Avagard Hand Antiseptic demonstrates bactericidal activity against gram-positive and gram-negative bacteria including antibiotic-resistant strains such as methicillin-resistant *S. aureus* (MRSA), methicillin-resistant *Staphylococcus epidermidis* (MRSE), multi-drug resistant *Enterococcus faecium* (MDR) and vancomycin-resistant *Enterococcus faecalis* (VRE) i*n vitro*[31]

In Vitro time kill study[31]

% Microbial kill	Microorganism (15 Seconds)
Staphylococcus aureus (ATCC 29213)	99.99
Staphylococcus aureus (ATCC 6538)	99.99
Staphylococcus aureus (MRSA) (ATCC 33592)	99.98
Escherichia coli (ATCC 11229)	99.96
Escherichia coli (ATCC 25922)	99.99
Pseudomonas aeruginosa (ATCC 15442)	99.91
Pseudomonas aeruginosa (ATCC 27853)	99.99
Serratia marcescens (ATCC 14756)	99.99
Staphylococcus epidermidis (ATCC 12228)	99.99*
Staphylococcus epidermidis (MRSE) (ATCC 51625)	99.99
Micrococcus luteus (ATCC 7468)	99.56
Enterococcus faecalis (ATCC 29212)	99.95
Enterococcus faecalis (VRE) (ATCC 51299)	99.48
Enterococcus faecium (MDR) (ATCC 51559)	99.81
Candida albicans (ATCC 10231)	99.98

*Outlier excluded from calculation.

Meets FDA NDA requirements

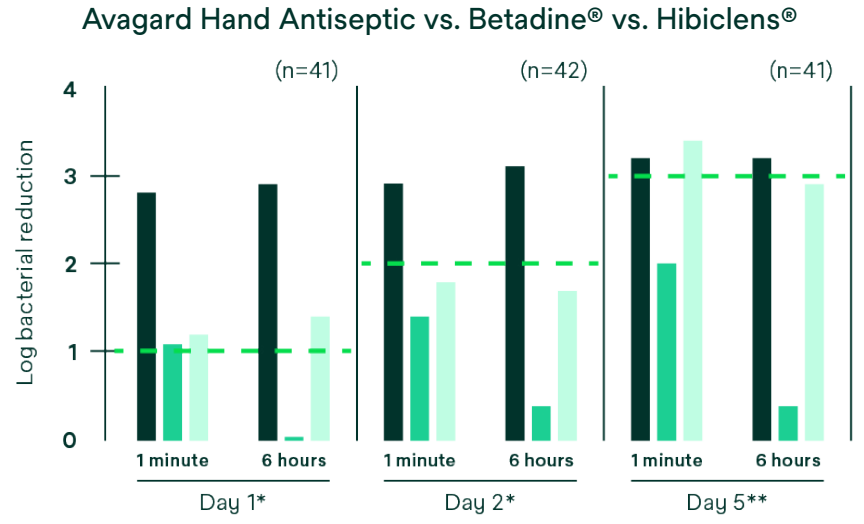
Effective, persistent activity as a surgical hand scrub

In the surgical scrub test method set forth by the FDA in its Tentative Final Monograph for Health Care Antiseptic Drug Products,[23] Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers surpassed FDA log reduction criteria at all time points. This test method is used to measure the antimicrobial activity and persistence of a product against normal skin flora. 3M™ Avagard™ Hand Antiseptic significantly exceeds Hibiclens® (4% CHG) Antiseptic/Antimicrobial Skin Cleanser, which is the required FDA reference product, in bacterial log reductions at all time points on Days 1 and 2, and was comparable on Day 5.[24–26] It also significantly exceeds Betadine® Surgical Scrub in bacterial log reductions at all measured time points.[26,27]

In addition to effectiveness, Avagard Hand Antiseptic has proven persistence comparable to Hibiclens®[24–26] and better than Betadine®.[26,27] Persistence is important because organisms can thrive and repopulate easily in the warm, moist environment under gloves, and gloves have been shown to sustain damage during procedures.[33]

The persistent activity of Avagard Hand Antiseptic is proven to suppress microbial growth for up to 6 hours, with immediate and sustained activity over time.[24–27]

Assessment antimicrobial effectiveness of surgical hand scrub formulations agains normal skin flora[24,25]



Key

- Avagard Hand Antiseptic
- Betadine®
- Hibiclens®
- FDA Performance Criteria

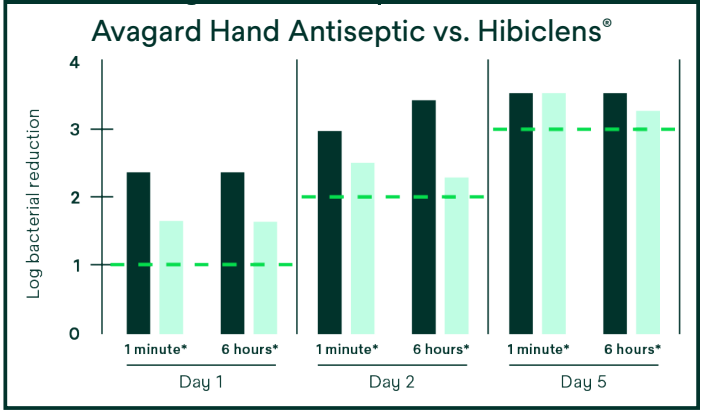
** Avagard Hand Antiseptic demonstrated a statistically significant difference from both Betadine® and Hibiclens®.

** Avagard Hand Antiseptic demonstrated a statistically significant difference from Betadine® only.

Surgical hand scrub studies

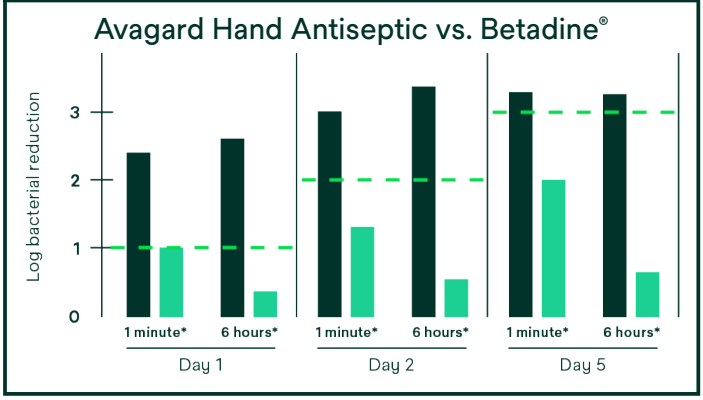
The results of the 3M™ Avagard™ Hand Antiseptic vs. Hibiclens® vs. Betadine® Surgical Scrub study were verified by two independent, well-controlled studies.

Assessment of the antimicrobial effectiveness of surgical hand scrub formulations against normal skin flora[24,25]



*statistically significant difference

Assessment of the antimicrobial effectiveness of surgical hand scrub formulations against normal skin flora[27]



*statistically significant difference

Key

- Avagard Hand Antiseptic
- Betadine®
- Hibiclens®
- FDA Performance Criteria

- Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers met or exceeded the FDA standards for surgical scrub products at all measured time points[24–27]
- Avagard Hand Antiseptic provided greater bacterial reduction upon initial application Days 1 and 2 than Hibiclens® or Betadine®[24–27]
- Avagard Hand Antiseptic demonstrated significantly greater reduction of bacterial flora on hands than Hibiclens® on Days 1 and 2 and was comparable on Day 5[24–26]
- Avagard Hand Antiseptic demonstrated significantly greater reduction of bacterial flora on hands than Betadine® at all time points on all days measured[26–27]
- Avagard Hand Antiseptic demonstrated superior or comparable bacterial kill in a shorter application time than Hibiclens® when applied per manufacturers' directions for use†[24–26]
- Avagard Hand Antiseptic demonstrated superior bacterial kill in a shorter application time than Betadine® when applied per manufacturers' directions for use†[26–27]

All products were applied according to manufacturers' directions

- Avagard Hand Antiseptic: applied and allowed to dry
- Hibiclens®: 2 scrubs of 3 minutes each
- Betadine®: 2 scrubs of 5 minutes each

Bacterial samples were taken at 1 minute and 6 hours after completion of application procedure.

Effective, persistent activity as a healthcare personnel handwash

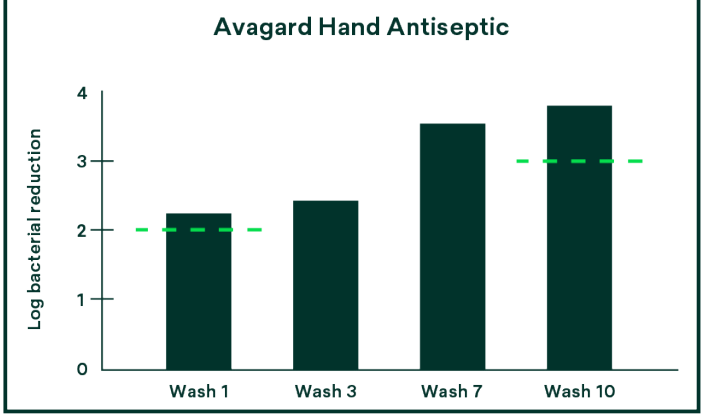
In addition to its excellent efficacy as a surgical hand scrub, Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers is also indicated for use as a healthcare personnel handwash and can be used to help meet APIC Recommendations for Hand Antisepsis.

Avagard Hand Antiseptic has been studied using the FDA-specified test method[23] for Health Care Personnel Handwash products. This test method measures the effectiveness of a product in reducing transient bacteria on human skin.

Conclusions

- Avagard Hand Antiseptic met or exceeded FDA criteria for a healthcare personnel handwash[34]
- After 1 wash, Avagard Hand Antiseptic demonstrated a greater than 99% reduction of seeded bacteria on hands[34]
- After 10 washes, Avagard Hand Antiseptic demonstrated a greater than 99.9% reduction of seeded bacteria on contaminated hands[34]

Assessment of the antimicrobial effectiveness of Avagard Hand Antiseptic as healthcare personnel handwash[34]



2002 CDC guideline for hand hygiene in health-care settings recommendations[39]

If hands are not visibly soiled, use an alcohol-based hand rub for routinely decontaminating hands in the following clinical situations:

Decontaminate hands

- before having direct contact with patients
- before donning sterile gloves when inserting a central intravascular catheter
- before inserting indwelling urinary catheters, peripheral vascular catheters, or other invasive devices that do not require a surgical procedure
- after contact with a patient's intact skin (e.g., when taking a pulse or blood pressure, and lifting a patient)
- after contact with body fluids or excretions, mucous membranes, nonintact skin, and wound dressings if hands are not visibly soiled
- if moving from a contaminated-body site to a clean-body site during patient care
- after contact with inanimate objects (including medical equipment) in the immediate vicinity of the patient
- after removing gloves

Skin condition – helps maintain skin integrity

Surgical hand scrubs and antiseptics should not only provide effective microbial kill, but protect and maintain skin barrier integrity as well, thereby reducing the risk of colonization and shedding of infectious agents.[2] Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers is uniquely formulated in an advanced, emollient-rich lotion base proven to help maintain the skin's integrity.[28–30] Additionally, because Avagard Hand Antiseptic is applied without water or scrub brushes, mechanical trauma can be avoided.

Skin condition studies

Three randomized bilateral comparison studies evaluated the effects of Avagard Hand Antiseptic on skin condition. One study compared Avagard Hand Antiseptic to Betadine® used as a surgical scrub. The remaining two studies compared Avagard Hand Antiseptic to Hibiclens®: One study applied the products as a surgical scrub, the other as a healthcare personnel handwash. All three studies used the following three-pronged approach to evaluate hand skin condition:

- **Expert dermatological grading:** In all three studies, an expert grader assessed subjects' hands for skin dryness, erythema, appearance, moisture content, and intactness. In addition, two of the three studies assessed tactile roughness. (**Method A**)
- **Subject self-assessment:** Study participants assessed their hands' appearance, moisture content, intactness, and sensation (itching, burning, soreness). (**Method B**)
- **Bioinstrumentation:** Measures of electrical conductance (hydrometric assessment) of the skin were used to assess moisture content. Transepidermal water loss (TEWL), an accepted measure of the barrier function of the skin, was used to assess water loss through the skin. (**Method C**)

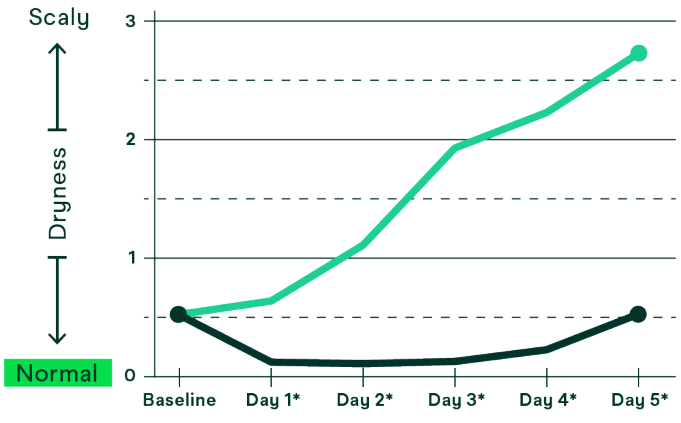
Method A: Expert dermatological grader

Assessment of skin condition (scale: 0=normal, 5=very scaly)

Assessment of skin condition expert dermatological grader

Avagard Hand Antiseptic vs. Betadine®

as a surgical scrub[29]



*statistically significant difference

Conclusions

- Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers significantly outperformed Betadine® and Hibiclens® on skin condition on all days, as measured by expert grading of dryness[28–30]
- 3M™ Avagard™ Hand Antiseptic hand antiseptic helped prevent dry, cracked skin[28–30]

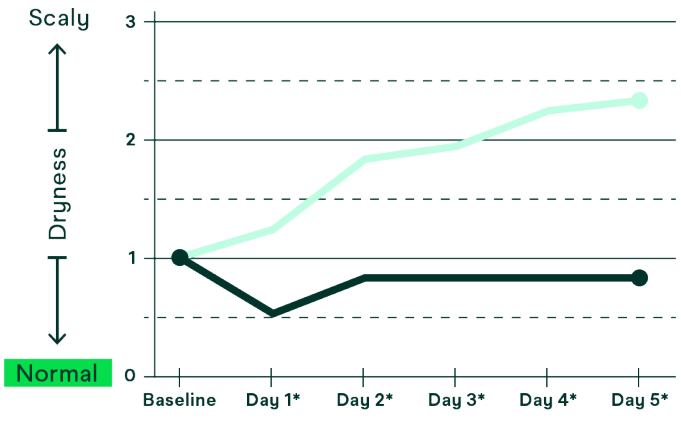
Additionally...

- Hands had significantly less erythema (redness) with Avagard Hand Antiseptic than with either Betadine® or Hibiclens®[28–30]
- Hands felt significantly less rough with Avagard Hand Antiseptic than with either Betadine® or Hibiclens®[29,30]
- Avagard Hand Antiseptic was rated significantly better than either Betadine® or Hibiclens® on skin appearance, moisture content, and intactness[28–30]

Assessment of skin condition expert dermatological grader

Avagard Hand Antiseptic vs. Hibiclens®

as a surgical scrub[28]

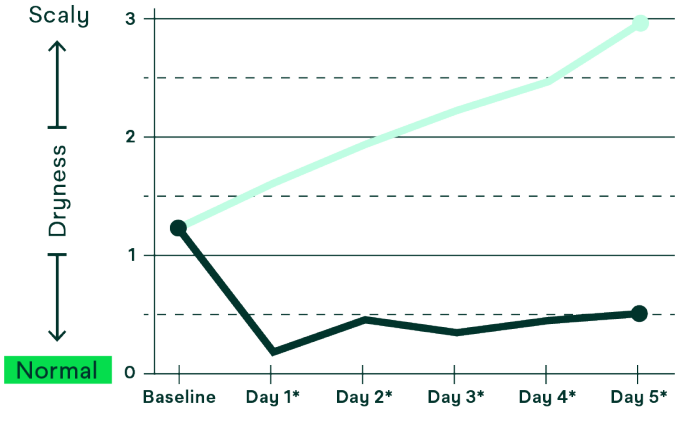


*statistically significant difference

Assessment of skin condition expert dermatological grader

Avagard Hand Antiseptic vs. Hibiclens®

as a healthcare personnel handwash[30]



*statistically significant difference

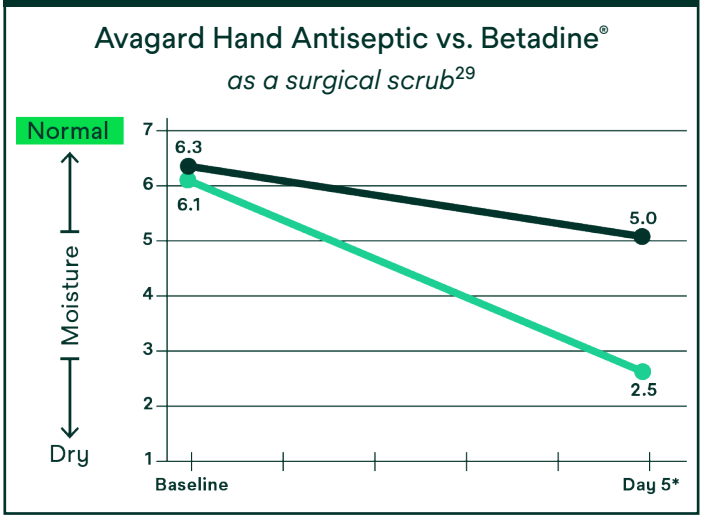
Key

- Avagard Hand Antiseptic
- Betadine®
- Hibiclens®

Method B: Self-assessment by subjects

Assessment of moisture content (scale: 1=extremely dry, 7=normal)

Assessment of moisture content subject self-assessment



*statistically significant difference

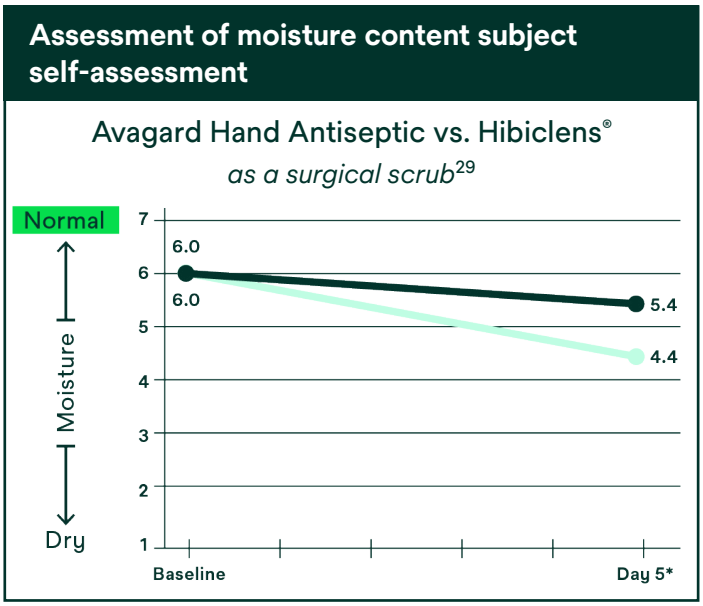
Conclusions

- Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers proved significantly less drying than either Betadine® or Hibiclens® after 5 days of use[28–30]

Additionally...

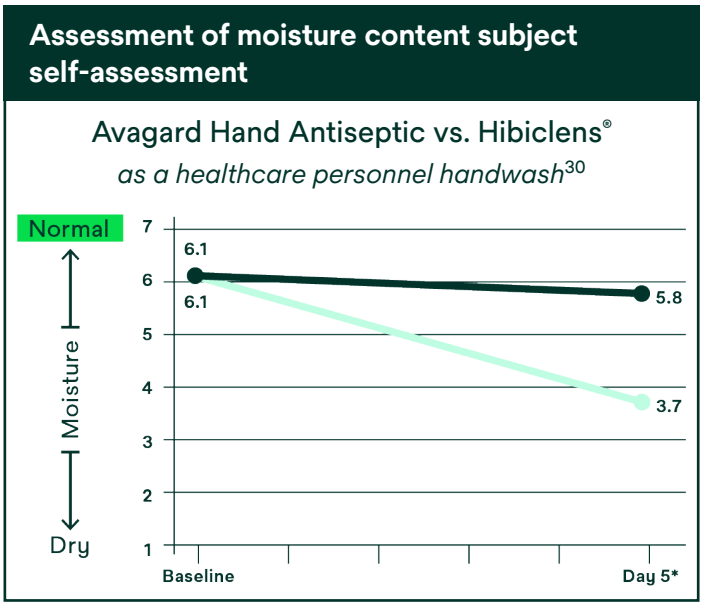
- Following use of 3M™ Avagard™ Hand Antiseptic hand antiseptic, appearance of hands was rated significantly better compared to either Betadine® or Hibiclens®[28–30]
- Intactness of skin following the use of Avagard Hand Antiseptic was rated significantly better compared to either Betadine® or Hibiclens®[29,30]
- Subjects experienced significantly less itching, burning, or soreness with Avagard Hand Antiseptic than with either Betadine® or Hibiclens®[28–30]

Assessment of moisture content subject self-assessment



*statistically significant difference

Assessment of moisture content subject self-assessment



*statistically significant difference

Key

Avagard Hand Antiseptic
Betadine®
Hibiclens®

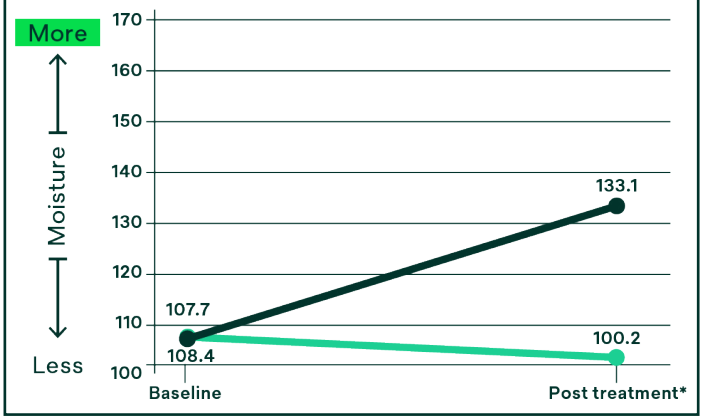
Method C: Bioinstrumentation

Hydrometric assessments of skin moisture†

Assessment of moisture content electrical conductance

Avagard Hand Antiseptic vs. Betadine®

as a surgical scrub[29]

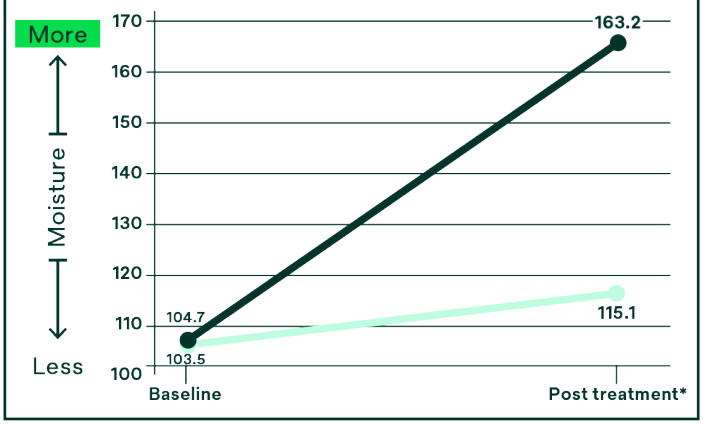


*statistically significant difference

Assessment of moisture content electrical conductance

Avagard Hand Antiseptic vs. Hibiclens®

as a surgical scrub[29]



*statistically significant difference

Key

- Avagard Hand Antiseptic
- Betadine®
- Hibiclens®

Conclusions

- Measurements of electrical conductance confirmed that Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers was significantly more moisturizing than either Betadine® or Hibiclens®[28–30]

Additionally...

- Water loss from the skin (transepidermal water loss) was significantly lower with 3M™ Avagard™ Hand Antiseptic than with either Betadine® or Hibiclens®[29,30]

† Standard test method used by the cosmetic industry to measure skin moisture content.

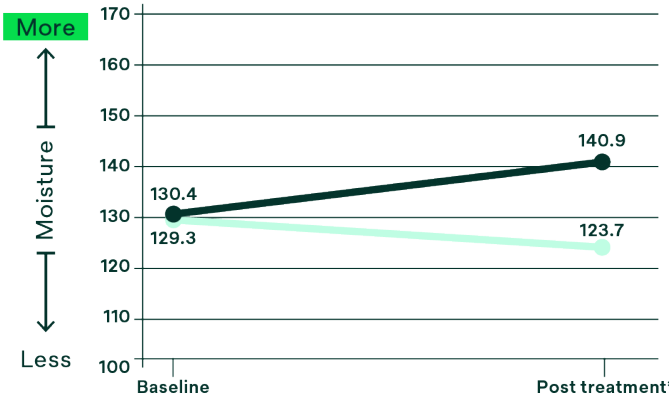
Skin condition

Overall, the 3-pronged evaluation used in all of these skin condition studies corroborated that the use of 3M Avagard Hand Antiseptic helps maintain skin integrity and the skin's natural barrier.[28–30]

Assessment of moisture content electrical conductance

Avagard Hand Antiseptic vs. Hibiclens®

as a healthcare personnel handwash[30]



*statistically significant difference

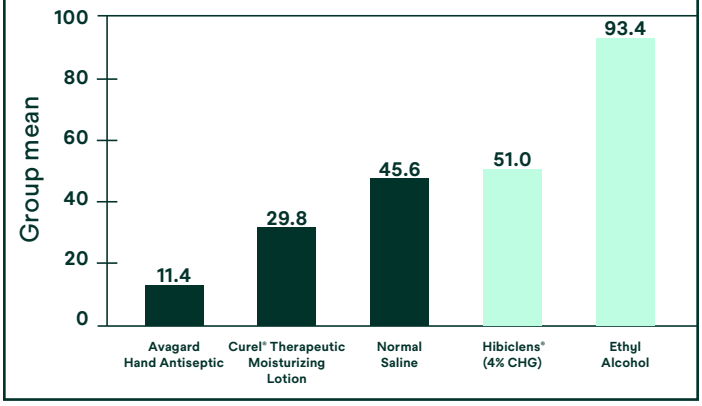
Proven safety

- Proven safe and effective for daily use as a surgical hand scrub and healthcare personnel handwash
- Low potential for sensitization[35]
- Low potential for irritation[36]

Conclusions

- Avagard (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61%, w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers is "Mild" as tested in a 21-Day Human Cumulative Irritation Study[36]
- Avagard Hand Antiseptic is significantly less irritating than saline, ethyl alcohol alone, and Hibiclens®[36]

21-day cumulative irritation study in humans[36]



Class 1
■ Mild, no irritation (0–49)

Class 2
Probably mild in normal use (50–199)

Latex and non-latex glove compatible

- Avagard Hand Antiseptic contains no mineral oil or petrolatum.
- Avagard Hand Antiseptic has demonstrated compatibility with latex gloves when tested for tensile strength (Latex gloves tested: Triflex®, Encore®).[37]
- Avagard Hand Antiseptic has demonstrated compatibility with non-latex glove materials when tested for tensile strength (Non-latex gloves tested: Tactylon®, Duraprene™, Biogel®).[37]

CHG compatibility

One of the most important benefits of using an antimicrobial scrub or hand antiseptic product that contains chlorhexidine gluconate (CHG), is that these products provide persistent activity out to 6 hours and cumulative activity with multiple uses. This persistent activity keeps bacterial counts on the hands low over time.

Because of this, it is important to consider what other products are being used to moisturize and clean the hands. Many products, including some hand lotions and gelled hand sanitizers, are incompatible with CHG. The thickeners used in these products (e.g., carbomer) react with the CHG to form an insoluble salt.

It has been well established in the literature that when CHG is converted, wholly or partly, to an insoluble salt, a loss of antibacterial action is to be expected.[38]

Application instructions

For surgical hand antisepsis

FDA approved surgical hand antiseptic. 3M™ Avagard™ Hand Antiseptic can be used for the first scrub of the day and every scrub of the day.

Apply to clean, dry hands


No water


No brushes

First application of the day

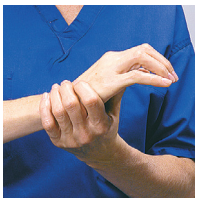
Clean under nails with a 3M™ Avagard™ Nail Cleaner. No prescrub required.

Three pump application

Pump 1
Dispense **one pump** (2 ml) into the palm of one hand. Dip fingertips of the opposite hand into the hand antiseptic and work under fingernails. Spread remaining hand antiseptic over the hand and up to just above the elbow, covering all surfaces.

Pump 2
Dispense **one pump** (2 ml) and repeat procedure with opposite hand.

Pump 3
Dispense **final pump** (2 ml) of hand antiseptic into either hand and reapply to all aspects of both hands up to the wrists. Allow to dry before donning gloves. Do not use towels!



Tips to remember

- **Use with care** in premature infants or infants under 2 months of age. These products may cause irritation or chemical burns.
- Per OSHA Bloodborne Pathogen Rule, wash hands with soap and water after the surgical procedure.

Questions? Call Solventum at 1-800-228-3957.

For healthcare personnel antisepsis

Apply to clean, dry hands


No water

Application

Dispense **one pump** (2 ml) into the palm of one hand. Apply the hand antiseptic evenly to cover both hands up to the wrists, paying particular attention to the spaces between the fingers and under the fingernails. Rub hand antiseptic briskly into hands until completely dry.

Tips to remember

- Use with care in premature infants or infants under 2 months of age. These products may cause irritation or chemical burns.

Questions? Call Solventum at 1-800-228-3957.

Warnings

Flammable, keep away from fire or flame.
For external use only.

Do not use if you are allergic to chlorhexidine gluconate or any other ingredient in this preparation.

When using this product, do not touch the eye with hands that have been treated with this preparation. Keep out of eyes, ears and mouth. May cause serious and permanent eye injury if permitted to enter and remain in the eye. If contact occurs, rinse with cold water right away. Do not use routinely if you have wounds which involve more than the superficial layers of the skin.

Stop use and ask a doctor if irritation, sensitization or allergic reaction occurs. These may be signs of a serious condition.

Keep out of reach of children. If swallowed, get medical help or contact a Poison Control Center right away.

Solventum Infection Prevention Solutions

By combining ongoing research, technical support, educational programs, and the latest techniques and proper use of products, Solventum helps bring solutions to reduce costs, improve patient outcomes and reduce risks through infection prevention. Solventum remains committed to providing you with current and reliable infection control information so you can continue delivering the very best patient care.

Solventum Avagard products

A family of Avagard products are available to meet your surgical scrub and healthcare personnel handwash needs.

Catalog number	Product name	Description	Size	Item/ case
9200	3M™ Avagard™ (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers	—	16.9 fl. oz. (500 mL) (Dispenser Bottle)	8
9216	3M™ Avagard™ (Chlorhexidine Gluconate 1% Solution and Ethyl Alcohol 61% w/w) Surgical and Healthcare Personnel Hand Antiseptic with Moisturizers	—	1.2 Liter (Wedge Bottle)	4
9201A	3M™ Avagard™ Wall Bracket and Foot Pump	Use with 9200 or 9216 dispenser bottle		10
9202	3M™ Avagard™ Wall Bracket and Hand Pump	Use with 9200 or 9216 dispenser bottle		1
9203A	3M™ Avagard™ Replacement Foot Pump	Use with 9201 Wall Bracket		6
9204	3M™ Avagard™ Nail Cleaners 9204	—		150/Box (6 Box/ Case)
9228	3M™ Avagard™ Hands Free Wall Dispenser	Use with 9200 or 9216 dispenser bottle		4
9229	3M™ Avagard™ Drip Tray	Use with 9201A, 9202 and 9228		12

For more information

For more information about Avagard products, including CHG compatible products, or to request samples for evaluation, contact your local Solventum distributor or sales representative, or call the Solventum at 1-800-228-3957.

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