BD ChloraPrep™ Preoperative Skin Preparation Applicator

Committed to Sustainable Healthcare in the operating room

Partnering with you towards patient safety, efficiency, and sustainability in the operating room.

For prescribing information please click here

BD

A trusted choice to help you operate with confidence[1,2]

BD ChloraPrep™ is a sterile and ready-to-use skin preparation solution. Your first line of defence – it delivers tested, persistent antimicrobial protection that is **backed by more than 60 clinical studies.**[1,2]

The applicator's efficient design is **proven to prevent surgical site infections** (SSIs) and patient safety events.[‡3–13]

Not only could this help to improve safety, efficiency and sustainability – but it could potentially reduce overall waste and costs associated with hospital readmissions.[13]

Patient Safety

Reduce the risk of adverse events

SSIs are the most common type of healthcare associated infection (HAI), and up to 60 % are preventable.[13]

BD ChloraPrep™ can help you minimise surgery-related adverse events,[3-15] which can reduce costs associated with patient readmissions and hospital stays.[13]

Skin preparation designed for safety[16]

IDEAL FORMULATION

2% Chlorhexidine gluconate with 70% Isopropyl alcohol formulation, compliant with the latest guidelines.[17,18]

STERILE & SAFE INSIDE

Our proprietary sterilisation process, with a SAL of 10^{-6} minimises the risk of intrinsic contamination.[19]

STERILE & SAFE OUTSIDE

The solution is embedded in a single use sterile applicator to minimise the risk of extrinsic contamination.[20]

PHARMACEUTICALLY LICENSED

As a pharmaceutically-licensed product, BD ChloraPrep™ product labeling is clear. Including information on our indication, instructions for use and adverse events.

CONTROLLED FLOW

The all-in-one applicator is designed to help control the flow of the solution, to prevent pooling and spilling, and reduce the possibility of chemical burns and surgical fires.[2,16]

Efficiency

Simplify and standardise your skin preparation[17]

We value your time. It's why our all-in-one, ready to use, sterile applicators remove the need for ancillary products or equipment. This simplifies your skin antisepsis, making it easier to standardise across your institution.[17]

Skin preparation with BD ChloraPrep™ is 10 minutes faster than a three-step protocol with Betadine[21]

Sustainability

Generate less waste across your hospital without compromising patient safety

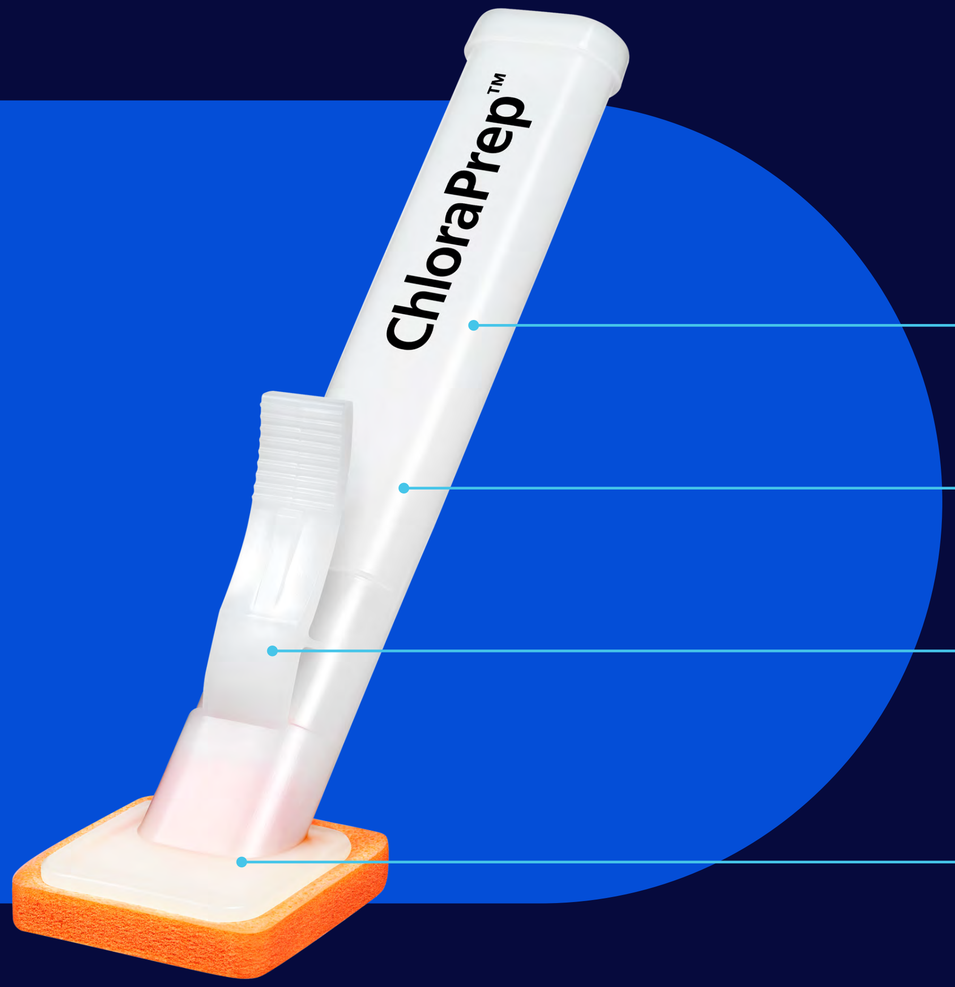
BD ChloraPrep™ involves using and disposing of a single applicator and packaging. This could be advantageous compared to the waste requirements of your traditional bulk solution.[17,21]

In observed shoulder surgeries, BD ChloraPrep™ generated ~70 % less waste than bulk products *[22]

*Excludes weight of bottles and rampleys.

Generate less hospital waste and reduce your operating room footprint without the ancillary instruments required with bulk antiseptic bottles.[21]

Ensure that the appropriate volume of antiseptic for a procedure is utilised compared to the potentially hazardous waste from bottled antiseptic use.[17,21,23]



BD ChloraPrep™

Skin preparation you can trust

1. Complete sterility both inside and out, for the entire 3-year shelf life.[2]
2. BD ChloraPrep™ provides up to 48 hours of protection once applied.[24]
3. Back and forth motion to reach microorganisms in the deeper cell layers of the epidermis.[17,25]
4. Sterile sponge designed for controlled flow of the antiseptic.

BD ChloraPrep™

Product information

Get in touch with us today to request a demonstration, or to simply ask any questions you may have.

+41 21 556 3000

Customer services: to be localised by country

ChloraPrep Website

References

‡Reduction rate was a weighted average of SSI reduction rates amongst 10 studies calculated by BD using the sample sizes of the studies as the weights [3–12]. These studies include Chiwera 2018 (n=8,000; rate=78%), Cima 2013 (n=729; rate=59%), Corcoran 2013 (n=1,708; rate=69%), Hewitt 2017 (n=701; rate=66%), Hogle 2014 (n=3,418; rate=53%), Keenan 2014 (n=559; rate=71%), Lutifiyya 2012 (n=625; rate=68%), Martinez 2020 (n=94; rate=78%), Rauk 2010 (n=877; rate=84%) and Temming 2018 (n=1,082; rate=57%).

1. ChloraPrep compendium 2020.
2. ChloraPrep Summary of Product Characteristics. Updated June 2024.
3. Chiwera L, Wigglesworth N, McCoskery C, et al. Reducing adult cardiac surgical site infections and the economic impact of using multidisciplinary collaboration. J Hosp Infect. 2018;100(4):428–36.Chiwera L, Wigglesworth N, McCoskery C, et al. Reducing adult cardiac surgical site infections and the economic impact of using multidisciplinary collaboration. J Hosp Infect. 2018;100(4):428–36.
4. Cima R, Dankbar E, Lovely J, et al. Colorectal Surgery Surgical Site Infection Reduction Program: A National Surgical Quality Improvement Program—Drive Multidisciplinary Single-Institution Experience. J Am Coll Surg. 2013;216(1):23–33.Corcoran S, Jackson V, Coulter-Smith S, et al. Surgical site infection after cesarean section: Implementing 3 changes to improve the quality of patient care. Am J Infect Control. 2013;41(12):1258–63.
5. Corcoran S, Jackson V, Coulter-Smith S, et al. Surgical site infection after cesarean section: Implementing 3 changes to improve the quality of patient care. Am J Infect Control. 2013;41(12):1258–63.
6. Hewitt DB, Tannouri SS, Burkhart RA, et al. Reducing Colorectal Surgical Site Infections: A Novel, Resident-Driven, Quality Initiative. Am J Surg. 2017;213(1):36–42.
7. Hogle NJ, Cohen B, Hyman S, et al. Incidence and Risk Factors for and the Effect of a Program To Reduce the Incidence of Surgical Site Infection after Cardiac Surgery. Surg Infect (Larchmt). 2014;15(3):299–304.
8. Keenan JE, Speicher PJ, Thacker JKM, et al. The Preventive Surgical Site Infection Bundle in Colorectal Surgery: An Effective Approach to Surgical Site Infection Reduction and Health Care Cost Savings. JAMA Surg. 2014;149(10):1045–52.
9. Lutifiyya W, Parsons D, Breen J. A Colorectal "Care Bundle" to Reduce Surgical Site Infections in Colorectal Surgeries: A Single-Center Experience. Perm J. 2012;16(3):10–6.
10. Martinez C, Omesiete P, Pandit V, et al. A Protocol-Driven Reduction in Surgical Site Infections After Colon Surgery. J Surg Res. 2020;246:100–5.
11. Rauk PN. Educational intervention, revised instrument sterilization methods, and comprehensive preoperative skin preparation protocol reduce caesarean section surgical site infections. Am J Infect Control. 2010;38(4):319–23.
12. Temming LA, Raghuraman N, Carter EB, et al. Impact of Evidence-Based Interventions on Wound Complications after Cesarean. Am J Obstet Gynecol. 2018;217(4):449.e1–449.e9.
13. Calderwood MS, Anderson DJ, Bratzler DW, et al. Strategies to prevent surgical site infections in acute-care hospitals: 2022 Update. Infect Control Hosp Epidemiol. 2023;44(5):695–720.
14. B Crosby C, Mareș L. Skin antisepsis: past, present, and future. J Vasc Access Devices. 2001;6(1):26–31.
15. O'Donnell J. Topical Antibacterials (Ch 37) in: Mandell, Douglas, and Bennett's Principles and Practice of Infectious Diseases, 9th ed. p. 466–72, 2020.
16. European Policy Recommendations. European policy recommendations for an enhanced prevention of healthcare-associated infections in the EU: optimizing skin antisepsis [cited 2024 Dec 12]. Available from: https://gavecelt.it/nuovo/sites/default/files/uploads/SKIN%20ANTISEPSIS%20-%20EU%20Recommendations.pdf.
17. Casey AL, Badia JM, Higgins A, et al. Skin antisepsis: it's not only what you use, it's the way that you use it. J Hosp Infect. 2017;96(3):221–222.
18. Magalini S, Pepe G, Panunzi S, et al. Observational study on preoperative surgical field disinfection: povidone-iodine and chlorhexidinealcohol. Eur Rev Med Pharmacol Sci. 2013;17(24):3367–3375.
19. Degala S, McKinley CM, Thurmond KB, United States Patent 9,078,934. July 14, 2015.
20. U.S. Food and Drug Administration. FDA Drug Safety Communication: FDA requests label changes and single-use packaging for some overthe-counter topical antiseptic products to decrease risk of infection. Silver Spring (MD): U.S. Food and Drug Administration; 2013 Nov 13. Available from: https://wayback.archive-it.org/7993/20170113093141/http:/www.fda.gov/downloads/Drugs/DrugSafety/UCM374870.pdf
21. Rougereau G, Chatelain L, Terracher R, et al. Surgical solutions for preoperative skin preparation in total hip arthroplasty: A cost-effectiveness analysis of Betadine® and Chloraprep™. Orthop Traumatol Surg Res. 2022;108(6):103355.
22. BD Data on File. BD-138086.
23. Lundberg P, Smith A, Heaney J, et al. Pre-Operative Antisepsis Protocol Compliance and the Effect on Bacterial Load Reduction. Surg Infect (Larchmt). 2016;17(1):32–7. 2
24. Hibbard, J. Analysis comparing the antimicrobial activity and safety of current antiseptics: a review. J Infus Nurs. 2005;28(3):194–207.
25. Silva P. The right skin preparation technique: a literature review. J Perioper Pract. 2014;24(12):283–5.

Prescribing Information: **ChloraPrep™ and ChloraPrep™ with Tint 2% w/v chlorhexidine gluconate / 70% v/v isopropyl alcohol cutaneous solution; ChloraPrep™ 2% w/v chlorhexidine gluconate / 70% v/v isopropyl alcohol impregnated cutaneous swab.** Refer to the Summary of Product Characteristics before prescribing. **Presentation**:

ChloraPrep: 1 mL solution contains 20 mg of chlorhexidine gluconate (20 mg/mL) and 0.70 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 1 mL solution contains 20 mg of chlorhexidine gluconate (20 mg/mL) and 0.70 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 1.5 mL solution contains 30 mg of chlorhexidine gluconate (20 mg/mL) and 1.05 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 3 mL solution contains 60 mg of chlorhexidine gluconate (20 mg/mL) and 2.10 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 10.5 mL solution contains 210 mg of chlorhexidine gluconate (20 mg/mL) and 7.35 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 26 mL solution contains 520 mg of chlorhexidine gluconate (20 mg/mL) and 18.20 mL of isopropyl alcohol (0.70 mL/mL). The packaging consists of a lidding material sealed to a polymeric film creating a "pouch-like" packet surrounding the applicator.

ChloraPrep with Tint: 1 mL solution contains 20 mg of chlorhexidine gluconate (20 mg/mL) and 0.70 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 3 mL solution contains 60 mg of chlorhexidine gluconate (20 mg/mL) and 2.10 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 10.5 mL solution contains 210 mg of chlorhexidine gluconate (20 mg/mL) and 7.35 mL of isopropyl alcohol (0.70 mL/mL).
1 applicator with 26 mL solution contains 520 mg of chlorhexidine gluconate (20 mg/mL) and 18.20 mL of isopropyl alcohol (0.70 mL/mL). The packaging consists of a lidding material sealed to a polymeric film creating a "pouch-like" packet surrounding the applicator.

ChloraPrep cutaneous swab: each swab of 1.75 mL solution contains 35 mg of chlorhexidine gluconate (20 mg/mL) and 1.23 ml isopropyl alcohol (0.70 mL/mL). Three swabs containing 5.25 mL of solution contains 105 mg of chlorhexidine gluconate (20 mg/mL) and 3.7 mL isopropyl alcohol (0.70 mL/mL).

Indication: Disinfection of the skin prior to invasive medical procedures. **Dosage & administration**: The choice of applicator or swab will depend on the invasive procedure being undertaken. May be used in all age groups and patient populations. Should be used with care in newborn babies, especially those born prematurely. The applicator is squeezed gently to break the ampoule containing the antiseptic solution, which is released onto the sponge in a controlled flow. The sponge is gently pressed against the patient's skin in order to apply the antiseptic solution. Once the solution is visible on the skin, use gentle back and forth strokes to prep the site for 30 seconds. The area covered should be allowed to air dry completely. **Contra-indications**: Known hypersensitivity to ChloraPrep, ChloraPrep with Tint or ChloraPrep cutaneous swab or any of its components, especially those with a history of possible chlorhexidine-related allergic reactions. ChloraPrep cutaneous swab: Use in the ear canal due to the risk of ototoxicity. **Warnings and precautions:** The solution is flammable. The solution is an irritant to mucous membranes. It should be therefore kept away from these areas. Do not use electrocautery procedures or other ignition sources until the skin is completely dry. Remove any soaked materials, drapes or gowns before proceeding with the intervention. Do not use excessive quantities and do not allow to pool in skin folds or under the patient or drip on sheets or other material in direct contact with the patient. Where occlusive dressings are to be applied to areas previously exposed to ChloraPrep, care must be taken to ensure no excess product is present prior to application of the dressing. For external use only on intact skin. Do not use on open skin wounds. Do not use on broken or damaged skin. In addition, direct contact with neural tissue or the middle ear must be avoided. When the solution has been applied in an over-vigorous manner to very fragile or sensitive skin or after repeated use, local skin reaction may occur. Prolonged skin contact with alcohol containing solutions should be avoided. ChloraPrep must not come into contact with the eye. Serious cases of persistent corneal injury, potentially requiring corneal transplant, were reported following accidental ocular exposure to chlorhexidine containing medicinal products despite taking eye protective measures due to migration of solution beyond the intended surgical preparation area. Extreme care must be taken during application to ensure that ChloraPrep does not migrate beyond its intended application site into the eyes. Particular care should be taken in anaesthetised patients, who are unable to immediately report ocular exposure. If ChloraPrep comes into contact with the eyes, wash out promptly and thoroughly with water. An ophthalmologist's advice should be sought. Chlorhexidine is known to induce hypersensitivity, including generalised allergic reactions and anaphylactic shock. Chlorhexidine-containing products are known causes of anaphylactic reactions during anesthesia. The symptoms of anaphylactic reactions might be masked in an anesthetized patient. If symptoms of an anaphylactic reaction are detected during anesthesia, chlorhexidine related allergic reaction should be considered. When chlorhexidine-related allergic reaction during anesthesia is suspected, other products containing chlorhexidine used during anesthesia (e.g. IV lines) should be removed. Special precaution should be taken to avoid patient exposure to any other product containing chlorhexidine during the course of the treatment. The use of chlorhexidine solutions, both alcohol based and aqueous, for skin antisepsis prior to invasive procedures has been associated with chemical burns in neonates. This risk appears to be higher in preterm infants, especially those born before 32 weeks of gestation and within the first 2 weeks of life. **Pregnancy & lactation:** Although no studies have been conducted, no effects are anticipated as systemic exposure is negligible. **Undesirable effects:** *Very rarely* (<1/10,000); allergic or irritation skin reactions to chlorhexidine, isopropyl alcohol or sunset yellow (E110, present in ChloraPrep with Tint only), including erythema, rash, pruritus and blisters or application site vesicles. Other local symptoms have included skin burning sensation, pain, inflammation. *Frequency not known* (cannot be estimated from the available data); hypersensitivity including anaphylactic shock, dermatitis, eczema, urticaria, chemical burns in neonates, eyes irritation and pain, hyperaemia, corneal erosion, epithelium defect/corneal injury, significant permanent visual impairment*. *Cases of severe corneal erosion and permanent significant visual impairment due to inadvertent ocular exposure have been reported post-marketing, leading to some patients requiring corneal transplant. At the first sign of local skin reaction application of ChloraPrep should be stopped. Cases of anaphylactic reactions have been reported during anesthesia. **Description of selected adverse reactions:** There have been isolated spontaneous reports of generalised allergic reactions potentially associated with ChloraPrep solution that have been reported during anesthesia. In some cases, the patient may have had a pre-existing sensitivity to chlorhexidine. This product may cause a severe allergic reaction. Symptoms may include wheezing/difficulty breathing, shock, facial swelling, hives, or rash. Use of ChloraPrep is contra-indicated where patients have shown previous hypersensitivity to chlorhexidine or isopropyl alcohol (see Section Contra-indications). If hypersensitivity or an allergic reaction occurs, stop use and seek medical help right away. The prescribers should consult the Summary of Product Characteristics in relation to other adverse reactions. **Per applicator costs** (ex VAT) Direct sales, for the UK only. For costs in Ireland contact the Distributor. ChloraPrep 1.75ml (Single swab) – £0.37; ChloraPrep: 1ml – £0.34; 1.5ml (FREPP) – £0.58; 3ml – £0.90; 10.5ml – £3.24; 26ml – £7.21. ChloraPrep with Tint: 3ml – £0.94; 10.5ml – £3.40; 26ml – £7.57.

Legal category: UK: GSL. Ireland: Not subject to medical prescription. **Marketing Authorisation Numbers:** ChloraPrep, (UK: PL05920/0002; Ireland: PA2287/001/002); ChloraPrep with Tint, (UK: PL05920/0003; Ireland: PA2287/001/001); ChloraPrep cutaneous swab (UK: PL05920/0006; Ireland: PA2287/001/003). **Marketing Authorisation Holder**: Becton Dickinson UK Ltd, 1030 Eskdale Road, Winnersh, Wokingham RG41 5TS, United Kingdom. Ireland: Becton Dickinson France, 11 Rue Aristide Bergès, 38800 Le Pont de Claix, France **Date of Revision of the API:** February 2026.

Additional information is available upon request.

Reporting suspected adverse reactions is important to monitor the benefit/risk balance of the medicinal product. Reporting forms and information can be found at **www.mhra.gov.uk/yellowcard** (for UK) and **www.hpra.ie** (for Ireland).
Customer contact for adverse events and medical information inquiries –For UK: 0800 0437 546, or email: SafetyInformation@bd.com. For Ireland: 1800937570or email: SafetyInformation@bd.com