

CHLORHEXIDINE GLUCONATE BATHING

Table of Contents

- [Critical Points](#)
- [Supplies](#)
- [Procedure](#)
 - [General Instructions](#)
 - [CHG Wipe Bath Directions](#)
 - [HIBICLENS® CHG Bath Directions](#)
 - [HIBICLENS® CHG Shower Directions](#)
 - [Documentation / Education](#)
- [References](#)
- [Appendix A: Family CHG Bathing Education Pamphlets](#)
- [Appendix B: Staff CHG Bathing Education Pamphlets](#)
- [Appendix C: Chlorhexidine Compatibility Information](#)
- [Appendix D: CHG Bathing for MRSA Decolonization \(ICN Only\)](#)

Critical Points

1. Provide chlorhexidine gluconate (CHG) baths to patients (>48 weeks corrected gestational age) with a central venous catheter (CVC) or indwelling transurethral catheter (Foley®) in acute care units and the Intensive Care Nursery.
 - a. Exception: For ICN patients, CHG bathing may be used for MRSA decolonization in patients < 48 weeks corrected gestational age per provider order. See [Appendix D](#) for more information.
2. A CHG bath may be completed by the patient or family member after receiving instruction from a RN who will evaluate the ability of the receiver to perform the bath correctly.
3. The 2% CHG wipes contain a moisturizer, while the 4% foam cleanser does not. If additional moisturizer is needed, use **only** REMEDY Nourishing Cream® or Aquaphor® which are both CHG compatible. **Many other skin care products deactivate CHG.** Consult a unit Clinical Nurse Specialist (CNS) for any special patient skin moisturizer needs before using another product.
4. CHG packages may only be warmed in the designated warmer. Do not heat in a microwave as it will deactivate the CHG and overheat the cloths which could result in patient harm.
5. CHG contact with meninges is contraindicated. Ensure lumbar drain and/or epidural catheter dressings are intact and only apply CHG up to the border of a dressing avoiding contact with the edge. Moisture releases adhesive dressings.
6. Use CHG bathing/shower products only below the jawline.
7. For unstable patients, provide CHG bath as tolerated and prioritize cleansing the neck, under arms, groin and genitalia.
8. Choose 4% foam cleanser (Hibiclens®) :
 - a. If patient does not tolerate a 2% CHG wipe bath (e.g., skin sensitivity manifested as rash, hives, or itching).
 - b. Patient/Family declines 2% CHG wipe baths (e.g., do not like feeling wipes leave on skin).
 - c. *Prefer to shower.

CHLORHEXIDENE GLUCONATE BATHING (continued)

- d. *Patients/caregivers prefer a soap and water bath.
*Note – these patients may alternatively have a shower or basin soap/water bath immediately followed by the 2% CHG wipes as well.

9. CONTRAINDICATIONS

- a. The following should **NOT** receive a daily CHG bath or shower (and will receive a soap/water bath).
Patients –
- i. **< 2 months old** (i.e. < 48 weeks corrected gestational age).
 - ii. With **CHG sensitivity or allergy**.
 - iii. Receiving **phototherapy**.
 - iv. With chronic, severe, generalized **skin breakdown** (including, but not limited to: generalized blistering, burns, severe graft versus host disease with open sores, or epidermolysis bullosa acquisita).
 - v. Ordered to receive **medical ointments** (e.g., steroid creams) to the **majority of their body** (i.e., > 50%) for treatment of a generalized skin condition. CHG will be inactivated by most medical ointments/creams.
 - vi. Receiving **full body radiation therapy** should not be bathed with CHG on all day(s) in which radiotherapy is administered. Patients should be bathed with soap and water on these days.
 - vii. Receiving **focal radiation therapy** should not have that localized area of their body bathed with CHG on all day(s) in which radiotherapy is administered. The rest of the body may be bathed with CHG, and localized area cleansed with soap and water.
 - viii. Receiving **Thiotepa**, the day(s) of, and for 24 hours following, administration of the drug. Patients should be bathed with soap and water on these days. Refer to BMT bathing protocol in the [Bone Marrow Transplant \(Pediatric\)](#) nursing procedure.

Supplies

GENERAL

- Appropriate shampoo if washing hair
- Non-CHG cleanser for washing face
- Supplies to remove significant soiling or if patient/family prefers a soap/water bath prior to CHG bath/shower
- Gloves
- Gown (optional)

CHG CLOTH PACKETS

- CHG packets (from warmer or at room temperature). Refer to [CHG Cloth Warmer directions](#). See [Table 1](#) for number of cloths needed. Each packet contains 2 cloths (*PMM 59267*)

HIBICLENS CHG

- Hibiclens CHG 4% foam cleanser; 4 oz. bottle: *PMM #597611*, 16 oz. bottle: *PMM #856177*
- Wash cloth(s), if using
- Basin and warm water, if performing Hibiclens bath (vs. shower)
- Towels for drying

CHLORHEXIDENE GLUCONATE BATHING (*continued*)

Table 1: How to Determine Number of Cloths Needed & Cleaning Sequence

	<22lbs (10kg)	22-66lbs (10-30kg)	>66lbs (>30kg)
CHG Cloth 1	Neck, Chest, Abdomen, Both Arms, and Back	Neck, Chest, Abdomen and Both Arms	Neck, Chest, Abdomen
CHG Cloth 2	Both Legs, Buttocks, and Genital/anal area	Back and Buttocks	Both Arms
CHG Cloth 3	-----	Both Legs	Right Leg
CHG Cloth 4	-----	Genital/anal Area	Left Leg
CHG Cloth 5	-----	-----	Back and Buttocks
CHG Cloth 6	-----	-----	Genital/anal Area

CHG Cloth Warmer Directions:

1. Place CHG packets in warmer.
2. Cloths warm in 60 minutes in 14-count warmer and 120 minutes in 24-counter warmer. The warmer reads **HEATING** during this time. Warmer will indicate when cloths are ready for use, i.e., **HEATED** or **USE FIRST**
3. CHG cloths expire if left in warmer for > 250 hours (10.4 days); warmer will indicate when expiration has occurred, i.e. **DISCARD**
4. Do not return a previously warmed packet to the warmer.

Procedure

GENERAL INSTRUCTIONS

1. Confirm no allergy or sensitivity to CHG.
2. Explain procedure to patient/family.
 - a. Utilize the [CHG Family Education Pamphlet](#) to aid in patient/caregiver education.
3. Ensure patient privacy when providing bath and prevent heat loss which may cause discomfort or hypothermia.
4. Perform a CHG bath/shower daily on all patients in **acute** care with:
 - a. Central venous catheter(s) (tunneled, non-tunneled, PICC, implanted port, and dialysis catheter)
 - b. Indwelling transurethral catheter (Foley).
5. Perform a CHG bath daily for *all* patients in **pediatric critical care units**.
6. Provide a CHG bath/shower maximally every 24 hours.
7. Provide CHG bath/shower prior to CVC insertion procedure or SURGERY, as possible.
8. Review [Contraindications](#) and exceptions before beginning CHG bath/shower.
9. If desired by patient, a soap and water bath can be given prior to and immediately followed by a CHG bath/shower.

CHLORHEXIDENE GLUCONATE BATHING (continued)**CHG WIPE BATH DIRECTIONS**

Note – Many or all of these steps will be relayed to the patient or caregiver assisting the patient to bath/shower. Utilizing the [CHG Family Education Pamphlet](#) will aid in patient/caregiver education.

1. Perform hand hygiene.
2. Prepare supplies for use on clean bedside table.
3. Don gloves.
4. Wash patient's hair (recommended at minimum once a week) and face with soap/water products.
 - Do not use CHG above jawline.
5. Perform hand hygiene and don gloves.
6. Don gown (optional). CHG may discolor clothing/linen.
7. Assess temperature of CHG cloth to ensure it is warm and not hot.
8. Use a clean CHG cloth for each area of the body as directed in [Table 1](#).
9. Ensure equal distribution of CHG by using a repeated back and forth motion with the number of cloths necessary and in the sequence indicated in [Table 1](#). Skin should glisten with moisture from the cloth.
10. After ensuring dressings are intact, clean with CHG cloth to the dressing border(s).
11. Do not touch dressing border as moisture can release adhesive.
12. Ensure skin folds are cleansed and allowed to dry, especially the neck, underarms, groin and genitalia.
13. For lines, tubes, and drains (e.g., indwelling urinary catheters, central line, chest tube, JP drain, G-tube): after cleaning the body part that has the device, use the same CHG cloth to cleanse the line, tube, or drain by wiping away, distally, from the insertion site at least six inches.
14. If incontinent of stool, remove stool, clean area with soap/water, then clean with CHG cloths.
 - CHG may be reapplied for subsequent incontinence episodes independent of daily CHG full body bath.
15. Do not rinse skin after CHG bath.
16. Allow skin to air dry.
 - Skin may feel sticky or tacky for a few minutes after bathing.
 - Drying with a towel may remove CHG and limit antimicrobial properties.
 - Allow extra time for skin folds to dry.
17. CHG cloths contain moisturizers
 - If an additional moisturizer is needed, use only REMEDY Nourishing cream or Aquaphor. These will not deactivate CHG and are stocked in each unit.
18. Dispose of CHG cloths in non-infectious waste.
 - **Do not flush CHG cloths down the toilet or bed pan washer.**
 - Do not leave CHG cloths on linen as they may discolor it.
19. If skin irritation or breakdown occurs that may be due to CHG wipes, consider testing patient response to Hibiclens CHG 4% foam, and provide soap/water cleansing if unable to tolerate any form of CHG bath/shower.

HIBICLENS CHG BATH DIRECTIONS

1. Perform hand hygiene.
2. Prepare supplies for use on clean bedside table.

CHLORHEXIDENE GLUCONATE BATHING (continued)

3. Don gloves.
4. Wash patient's hair (recommended at minimum once a week) and face with soap/water products.
5. Do not use CHG above the jawline.
6. Perform hand hygiene and don gloves.
7. Use Hibiclens at full strength; do not dilute.
8. Apply Hibiclens directly to skin or onto a moist cloth.
9. Wash patient thoroughly, ensuring skin folds are cleansed, especially the neck, underarms, groin and genitalia. Reapply soap to skin or moist cloth as needed to cleanse all body surfaces.
10. For lines, tubes, and drains (e.g., indwelling urinary catheter, central line, chest tube, JP drain, G-tube): after cleaning the body part that has the device, use the same Hibiclens moist cloth to cleanse the line, tube, or drain by wiping away, distally, from the insertion site at least six inches.
11. If incontinent of stool, remove stool, clean area with soap/water, then clean with Hibiclens.
 - a. CHG may be reapplied for subsequent incontinence episodes independent of daily CHG full body bath.
12. Rinse/remove Hibiclens foam completely.
13. Dry skin, ensuring skin folds are thoroughly dry.
14. If a moisturizer is needed, use only REMEDY Nourishing cream or Aquaphor. These will not deactivate CHG and are stocked on each unit.
15. If skin irritation or breakdown occurs that may be due to CHG, stop CHG bathing and provide soap/water baths.

HIBICLENS CHG SHOWER DIRECTIONS

Note – Many or all of these steps will be relayed to the patient or caregiver assisting the patient to bath/shower. Utilizing the [CHG Family Education Pamphlet](#) will aid in patient/caregiver education.

1. Prepare supplies for shower.
2. Wash hair (recommended at minimum once a week) and face with soap/water products first, and rinse well.
3. Do not use CHG above jawline.
4. Moisten skin, then step out of shower stream.
5. Apply Hibiclens at full strength directly to skin or via a moist cloth.
6. Wash thoroughly, ensuring skin folds are cleansed, especially the neck, underarms, groin and genitalia. Use additional CHG soap as needed to cover all body surfaces.
7. Rinse/remove Hibiclens foam completely.
8. Dry skin, ensuring skin folds are thoroughly dry.
9. If a moisturizer is needed, use only REMEDY Nourishing cream or Aquaphor. These will not deactivate CHG and are stocked on each unit.
10. If skin irritation or breakdown occurs that may be due to CHG, stop CHG bathing/showering and provide soap/water baths/showers.

DOCUMENTATION / EDUCATION

1. Document the following in the medical record:
 - a. Daily Cares/Safety flowsheet → Hygiene section → Bathing row → Select *CHG bath/shower*, or other appropriate descriptors (e.g., *CHG refused* with comment). More than one option may be appropriate to select (e.g., *CHG contraindicated* and *Soap and water bath/shower*)
 - b. Skin reaction in comments.

CHLORHEXIDENE GLUCONATE BATHING (*continued*)

- i. Add to allergy list
- ii. Complete an incident report.
- c. Patient/family teaching, including the importance of infection prevention.

References

Level of Evidence (FAME*)	Level*	Reference
	E3	Alserehi, H., Fillipell, M., Emerick, M., Cabunoc, M.K., Preas, M.A., Sparkes, C.,...Leekha, S. (2018). Chlorhexidine gluconate bathing practices and skin concentrations in intensive care patients. <i>American Journal of Infection Control</i> , 46(2), 226-228. doi:10.1016/j.ajic.2017.08.022
	E3	Bleasdale, S.C., Trick, W.E., Gonzalez, I.M., Lyles, R.D., Hayden, M.K., & Weinstein, R.A. (2007). Effectiveness of chlorhexidine bathing to reduce catheter-associated bloodstream infections in medical intensive care unit patients. <i>Archives of Internal Medicine</i> , 167(19), 2073-2079. doi:10.1001/archinte.167.19.2073
	E3	Bryant, K.A., Zerr, D.M., Huskins, W.C., & Milstone, A.M. (2010). The past, present, and future of healthcare-associated infection prevention in pediatrics: catheter-associated bloodstream infections. <i>Infection Control and Hospital Epidemiology</i> , 31(S1), S27-S31. doi:10.1086/655994
	E3	Climo, M.W., Yokoe, D.S., Warren, D.K., Perl, T.M., Bolon, M., Herwaldt, L.A.,...Wong, E.S. (2013). Effect of daily chlorhexidine bathing on hospital-acquired infection. <i>New England Journal of Medicine</i> , 368(6), 533-542. doi: 10.1056/NEJMoa1113849
	E1	Dudeck, M.A., Edwards, J.R., Allen-Brideson, K., Gross, C., Malpiedi, P.J., Peterson, K.D.,...Sievert, D.M. (2015). National Healthcare Safety Network report, data summary for 2013, device-associated module. <i>American Journal of Infection Control</i> , 43(3), 206-221. doi:10.1016/j.ajic.2014.11.014
	E3	Edwards, M., Purpura, J., & Kochvar, G. (2014). Quality improvement intervention reduces episodes of long-term acute care hospital central line-associated infections, 42(7), 735-738. doi:10.1016/j.ajic.2014.03.014.
	E3	Holder, C., & Zellinger, M. (2009). Daily bathing with chlorhexidine in the ICU to prevent central line-associated bloodstream infections. <i>Journal of Clinical Outcomes Management</i> , 16(11), 509-513.
	E3	Huang, S.S., Septimus, E., Kleinman, K., Moody, J, Hickok, J., Avery, T.R.,...Platt, R. (2013). Targeted versus universal decolonization to prevent ICU infection. <i>The New England Journal of Medicine</i> , 368(24), 2255-2265. doi:10.1056/NEJMoa1207290
	E3	Milstone, A.M., Passaretti, C.L., & Perl, T.M. (2008). Chlorhexidine: expanding the armamentarium for infection control and prevention, <i>Clinical Infectious Diseases</i> , 46(2), 274-281. doi.org/10.1086/524736
	E3	Milstone, A., Elward, A., Song, X., Zerr, D.M., Orscheln, R., Reich, N.G.,...Perl, T.M. (2013). Daily chlorhexidine bathing to reduce bacteraemia in critically ill children: a multicenter, cluster-randomized, crossover trial. <i>Lancet</i> , 381(9872), 1099-1106. doi:10.1016/S0140-6736(12)61687-0
	E3	Munoz-Price, I.S., Hota, B., Stemer, A, & Weinstein, R.A. (2009). Prevention of bloodstream infections by use of daily chlorhexidine baths for patients at a long-term acute care hospital. <i>Infection Control & Hospital Epidemiology</i> , 30(11), 1031-1035. doi:10.1086/644751
	E3	Peterson, L.R., & Singh, K. (2006). Universal patient disinfection as a tool for infection control: rub-a-dub-dub, no need for a tub. <i>Archives of Internal Medicine</i> , 166(3), 274-276. doi:10.1001/archinte.166.3.274

CHLORHEXIDENE GLUCONATE BATHING (*continued*)

E3	Quach, C., Milstone, A., Perpête, C., Bonenfant, M., Moore, D., & Perreault, T. (2014). Chlorhexidine bathing in a tertiary care neonatal intensive care unit: impact on central line-associated bloodstream infections. <i>Infection Control and Hospital Epidemiology</i> , 35(2), 158-163. doi:10.1086/674862
E3	Popovich, K.J., Hota, B., Hayes, R., Weinstein, R.A., & Hayden, M.K. (2009). Effectiveness of routine patient cleansing with chlorhexidine gluconate for infection prevention in the medical intensive care unit. <i>Infection Control & Hospital Epidemiology</i> , 30(10), 959-963. doi:10.1086/605925
E1	U.S. Department of Health and Human Services, Centers for Disease Control & Prevention. (2011). Guidelines for the Prevention of Intravascular Catheter-Related Infections. Retrieved from https://www.cdc.gov/infectioncontrol/pdf/guidelines/bsi-guidelines-H.pdf
* FAME Scale details: See nursing policy Policy, Procedure, & Competency Development, Review, & Approval	

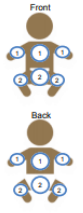

Procedure History

Author:	Shelley Diane, RN, MS, CNS; Cass Piper, RN, MS, CNS; Lisa Tsang, RN, MN ; Suzanne Ezrre, RN, MSN; Jessica Hale, RN, MS
Originated:	07/13
Resources:	Shelley Diane, RN, MS, CNS; Lisa Tsang, RN, MN, APN
Reviewed:	7/13 Approved by the Patient Care Standards Committee
Reviewed / Revised:	10/13 Shelley Diane, RN, MS, CNS; Lisa Tsang, RN, MN, APN 11/13 Shelley Diane, RN, MS, CNS; Lisa Tsang, RN, MN, APN 9/15 Shelley Diane, RN, MS, CNS; Lisa Tsang, RN, MN, APN 5/17 Lisa Tsang, RN, MN, APN; Shelley Diane, RN, MN; 3/18 Lisa Tsang, RN, MN (Critical Point G, only) 8/19 Shelley Diane, MS, CCNS, RN; Lisa Tsang, RN, MN, CNS 2/21 Lisa Tsang, RN, MN, CNS; Mary Nottingham, RN, MSN, CNS; Jeannie Chan, RN, MSN, CNS; Kaitlin Dugan, RN, CNS student

CHLORHEXIDENE GLUCONATE BATHING (continued)

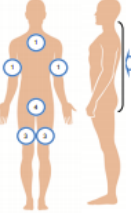

Appendix A: Family CHG Bathing Education Pamphlets

CHG Cloth <22 lbs (10 kg)

Patient/Caregiver Education		Daily Treatment with CHG Cloths < 22 lbs (10 kg)
<p>During your stay, you or your nurse will bathe your baby every day with a special antiseptic (CHG) that removes germs and prevents infection better than soap and water.</p> <p>Use 2 cloths (1 packet) in the order shown below:</p>  <p>Only use below the jawline.</p>		<p>TREATMENT WITH CHG CLOTHS</p> <ol style="list-style-type: none"> Firmly massage into all skin areas to ensure deep cleaning. Ask for help with hard to reach areas, such as backside, lines, tubes, and drains. Use the same CHG cloth used on the body part with the device to clean the tube, starting at the point of entry and continuing for 6 inches from the body. Do not rinse; allow to air dry. Use only CHG-compatible lotion to moisturize. This will be provided by your nurse. Throw away in trash. Do not flush. <p>PROTECT YOUR CHILD EVERY DAY</p> <p>IMPORTANT REMINDERS:</p> <ul style="list-style-type: none"> These no-rinse cloths are your child's protective bath. Starting on admission, use CHG at the same time every day. This is the best way to help prevent infection. It is normal for the skin to feel sticky for a few minutes after bathing with CHG. Once massaged into skin, CHG works to kill germs for 24 hours. <p>BE SURE TO INCLUDE:</p> <ul style="list-style-type: none"> Skin around all devices (tubes/drains) Neck Skin folds Armpits and groin Between fingers and toes 

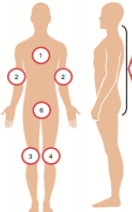

[*Spanish Version](#)

CHG Cloth 22-66 lbs (10-30 kg)

Patient/Caregiver Education		Daily Treatment with CHG Cloths 22-66 lbs (10-30 kg)
<p>During your stay, you or your nurse will bathe your child every day with a special antiseptic (CHG) that removes germs and prevents infection better than soap and water.</p> <p>Use 4 cloths (2 packets) in the order shown below:</p>  <p>Only use below the jawline.</p>		<p>TREATMENT WITH CHG CLOTHS</p> <ol style="list-style-type: none"> Firmly massage into all skin areas to ensure deep cleaning. Ask for help with hard to reach areas, such as backside, lines, tubes, and drains. Use the same CHG cloth used on the body part with the device to clean the tube, starting at the point of entry and continuing for 6 inches from the body. Do not rinse; allow to air dry. Use only CHG-compatible lotion to moisturize. This will be provided by your nurse. Throw away in trash. Do not flush. <p>PROTECT YOUR CHILD EVERY DAY</p> <p>IMPORTANT REMINDERS:</p> <ul style="list-style-type: none"> These no-rinse cloths are your child's protective bath. Starting on admission, use CHG at the same time every day. This is the best way to help prevent infection. It is normal for the skin to feel sticky for a few minutes after bathing with CHG. Once massaged into skin, CHG works to kill germs for 24 hours. <p>BE SURE TO INCLUDE:</p> <ul style="list-style-type: none"> Skin around all devices (tubes/drains) Neck Skin folds Armpits and groin Between fingers and toes 

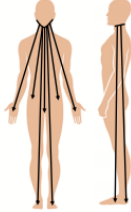

[*Spanish Version](#)

CHG Cloth >66 lbs (30 kg)

Patient/Caregiver Education		Daily Treatment with CHG Cloths > 66 lbs (30 kg)
<p>During your stay, you or your nurse will help bathe you or your child every day with a special antiseptic (CHG) that removes germs and prevents infection better than soap and water.</p> <p>Use 6 cloths (3 packets) in the order shown below:</p>  <p>Only use below the jawline.</p>		<p>TREATMENT WITH CHG CLOTHS</p> <ol style="list-style-type: none"> Firmly massage into all skin areas to ensure deep cleaning. Ask for help with hard to reach areas, such as backside, lines, tubes, and drains. Use the same CHG cloth used on the body part with the device to clean the tube, starting at the point of entry and continuing for 6 inches from the body. Do not rinse; allow to air dry. Use only CHG-compatible lotion to moisturize. This will be provided by your nurse. Throw away in trash. Do not flush. <p>PROTECT YOURSELF EVERY DAY</p> <p>IMPORTANT REMINDERS:</p> <ul style="list-style-type: none"> These no-rinse cloths are your protective bath. Starting on admission, use CHG at the same time every day. This is the best way to help prevent infection. It is normal for the skin to feel sticky for a few minutes after bathing with CHG. Once massaged into skin, CHG works to kill germs for 24 hours. <p>BE SURE TO INCLUDE:</p> <ul style="list-style-type: none"> Skin around all devices (tubes/drains) Neck Skin folds Armpits and groin Between fingers and toes 

[*Spanish Version](#)

CHG Soap

Patient/Caregiver Education		Daily Treatment with CHG Soap
<p>During your stay, shower or bathe every day with a special antiseptic soap (CHG) that removes germs and prevents infection better than soap and water.</p>  <p>Only use below the jawline.</p>		<p>TREATMENT WITH CHG SOAP</p> <ol style="list-style-type: none"> You will be given a bottle of CHG soap (e.g., Hibiclen®) to wash your body each day. Using regular shampoo and facial soap, wash and rinse hair and face. Wash your body with CHG soap, using your hands or a non-cotton, disposable cloth. Stand out of water stream while washing. Firmly massage into skin. Clean all parts of your body from the neck down. Reapply CHG soap often. Ask for help for hard-to-reach areas. For best effect, leave CHG soap on skin for 2 minutes. Rinse body well. After your bath/shower, ask for help to clean lines, tubes, and drains, using a CHG cloth, starting at the point of entry and continuing for 6 inches from the body. Use only CHG-compatible lotion to moisturize. This will be provided by your nurse. <p>PROTECT YOURSELF EVERY DAY</p> <p>IMPORTANT REMINDERS:</p> <ul style="list-style-type: none"> CHG works to kill germs for 24 hours. Starting on admission, use CHG at the same time every day. This is the best way to help prevent infection. Regular soap, shampoo, and lotions can prevent CHG from working well. When using shampoo and/or face wash, use them first and try to keep the shampoo and face wash off the body so CHG will be most effective. <p>BE SURE TO INCLUDE:</p> <ul style="list-style-type: none"> Skin around all devices (tubes/drains) Neck Skin folds Armpits and groin Between fingers and toes 

[*Spanish Version](#)

CHLORHEXIDENE GLUCONATE BATHING (continued)

Appendix B: Staff CHG Bathing Education Pamphlets

For ICN/PCICU Patients

UCSF Benioff Children's Hospital

Staff Education

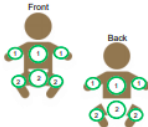
Daily Treatment with CHG Cloths or Soap Neonatal < 10kg

WHICH PATIENTS QUALIFY FOR CHG BATHING?

- Provide daily CHG baths to all patients > 48 weeks with a central venous catheter (CVC)
- For unstable patients, provide CHG bath as tolerated and prioritize cleaning the neck, under arms, groin

CONTRAINDICATIONS:

- Age below 48 weeks
- CHG cloth/soap allergy and sensitivity
- Severe skin breakdown
- Areas where medical ointments are being applied



Only use below jawline.

CHG works better than soap and water to protect from infection, and is less drying than soap.

REMINERS:

- Your enthusiastic teaching helps families understand why a daily CHG protective bath is important.
- CHG works for 24 hours to kill germs. It is best applied at the same time each day.
- Present options to parents regarding time of day and type of bath (wipes vs. soap).
- CHG soap (e.g. Hibiclens) is an good option for patients who are sensitive to CHG cloths.
- If a parent refuses, provide education. If needed, seek charge nurse or CNS assistance.
- Use only CHG compatible lotions and barriers (Remedy or Aquaphor).

DOCUMENTATION:

- Daily Care/Safety flowsheet > Hygiene Section > Bathing row > Select CHG bath
- Skin reaction (if any), in comments
- Allergy if applicable

TREATMENT WITH CHG CLOTHS

1. Review patient/caregiver CHG bathing handout and demonstrate bath.
2. Use all of the appropriate number of cloths in the order shown.
3. Firmly massage skin with cloths.
4. Clean proximal 6 inches of all lines, tubes and drains, avoiding any dressings.
5. Air-dry. Do not wipe off.

TREATMENT WITH CHG SOAP (e.g. Hibiclens)

1. Review patient/caregiver CHG bathing handout and demonstrate bath.
2. Wash hair and face using regular bath soap prior to CHG bath. Rinse away from body with warm water. Regular soap can make CHG inactive.
3. Wash using a non-cotton, disposable cloth with full strength CHG soap. Reapply often.
4. Massage CHG soap into all skin areas from the neck down.
5. Leave CHG soap on for 2 minutes, then rinse.
6. Use CHG cloths to clean the proximal 6 inches of all lines, tubes, and drains, avoiding any dressings.

ENSURE THOROUGH CLEANING OF THESE AREAS
Neck, skin folds, skin around all devices (tubes/streams), lines, tubes, and drains closest to patient, armpits, groin, and between fingers & toes

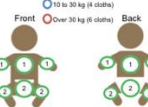
For All Non-ICN/PCICU Patients

UCSF Benioff Children's Hospital

Staff Education

Daily Treatment With CHG Cloths or Soap

○ Use (less than 10 kg) (2 Cloths)
○ Use (10 to 30 kg) (4 cloths)
○ Use (Over 30 kg) (6 cloths)



Only use below jawline.

CHG works better than soap and water to protect from infection, and is less drying than soap.

REMINERS:

- Your enthusiastic teaching helps patients and families understand why a daily CHG protective bath/shower is important.
- CHG works for 24 hours to kill germs. It is best applied at the same time each day.
- Present options to patients/caregivers regarding time of day and type of bath/shower (wipes vs. soap).
- CHG soap (e.g. Hibiclens) is an good option for patients who are sensitive to CHG cloths or who do not like the feeling of the CHG cloths.
- If a patient/caregiver refuses, provide education. If needed, seek charge nurse or CNS assistance.
- Document CHG bath refusal and/or contraindication, in addition to soap and water bath.
- Document CHG soap (e.g. Hibiclens) as a CHG bath/shower.
- Use only CHG compatible lotions and barriers (Remedy or Aquaphor).
- Refer to CHG bathing procedure for contraindications.

TREATMENT WITH CHG CLOTHS

1. Review patient/caregiver CHG bathing handout and demonstrate bath.
2. Use all of the appropriate number of cloths in the order shown.
3. Firmly massage skin with cloths.
4. Clean proximal 6 inches of all lines, tubes and drains, avoiding any dressings.
5. Air-dry. Do not wipe off.

TREATMENT WITH CHG SOAP (e.g. Hibiclens)

1. Review patient/caregiver CHG soap shower/bath handout and demonstrate bath/shower.
2. Wash hair and face using shampoo/soap prior to CHG bath/shower. Rinse away from body with warm water. Regular soap can make CHG inactive.
3. Wash using a non-cotton, disposable cloth with full strength CHG soap. Reapply often.
4. Massage CHG soap into all skin areas from the neck down.
5. Leave CHG soap on for 2 minutes, then rinse.
6. Use CHG cloths to clean the proximal 6 inches of all lines, tubes, and drains, avoiding any dressings.

ENSURE THOROUGH CLEANING OF THESE AREAS
Neck, skin folds, skin around all devices (tubes/drains), lines, tubes, and drains closest to patient, armpits, groin, and between fingers & toes.

CHLORHEXIDENE GLUCONATE BATHING (*continued*)

Appendix C: Chlorhexidine Compatibility Information

Chlorhexidine is compatible with the following:

- REMEDY™ Nourishing Skin Cream
- Aquaphor™ healing ointment
- 3M™ Cavilon™ No Sting Barrier Film

Chlorhexidine Gluconate (CHG) Compatibility

Chlorhexidine gluconate (CHG) is a unique skin antiseptic with a vital characteristic of excellent persistent antimicrobial activity.¹ To maintain persistence, it is important to utilize skincare products that are compatible with the CHG molecule and not neutralize the antiseptic effect. Compatibility is a complicated issue and is confounded by multiple variables:

- Number of offending ingredients in the lotion or cream used
- Amount or concentration of the offending ingredient(s)
- How often the lotion or cream is applied
- Viscosity of the lotion or cream

CHG has some important limitations:

- CHG is absorbed and “binds” onto the fibers of certain fabrics, particularly cotton.²
- CHG is most active at pH 5.5-7.0, and may precipitate out of an aqueous solution outside of this range.³
- CHG is a cationic molecule, and its antimicrobial activity is reduced in the presence of anionic and some nonionic substances.²

CHG is Ingredient and Formulation Dependent

Many soaps, shampoos, deodorants, lotions, barrier creams and other skincare products commonly used at home and in healthcare settings contain anionic ingredients, such as those listed in the box on this page. Using such products in conjunction with CHG or other cationic disinfectants can reduce the effect of the antimicrobial agent to a level that may be clinically significant. In most circumstances, there will be no visible signs of incompatibility.²

A standard measure of a skincare product’s compatibility with CHG is through accepted human or porcine skin testing in a manner consistent with how the 2% CHG Cloth is used in clinical practice. Established testing protocol involves controlled, sequential use of both products with the 2% CHG Cloth applied first, followed by the skincare product, with several subsequent tests for residual CHG and log₁₀-reduction of clinically relevant microbial counts.⁴⁻⁶

We **strongly recommend** contacting the skincare product manufacturer directly regarding CHG compatibility. In the absence of adequate *in vivo* test data, an evaluation of a product’s anionic and nonionic ingredients will provide an idea of its relative compatibility with CHG. It is important to review products used in conjunction with the 2% CHG cloth to help ensure optimal outcomes for your facility and patients. Ask the manufacturer of skincare products if their lotion or cream has CHG compatibility data. Published outcomes studies using the 2% CHG Cloth for prevention of surgical site infection have included careful assessment of skincare products to ensure full CHG activity.

INGREDIENTS COMMONLY FOUND IN SKINCARE PRODUCTS, WHICH MAY INHIBIT CHG ACTIVITY*

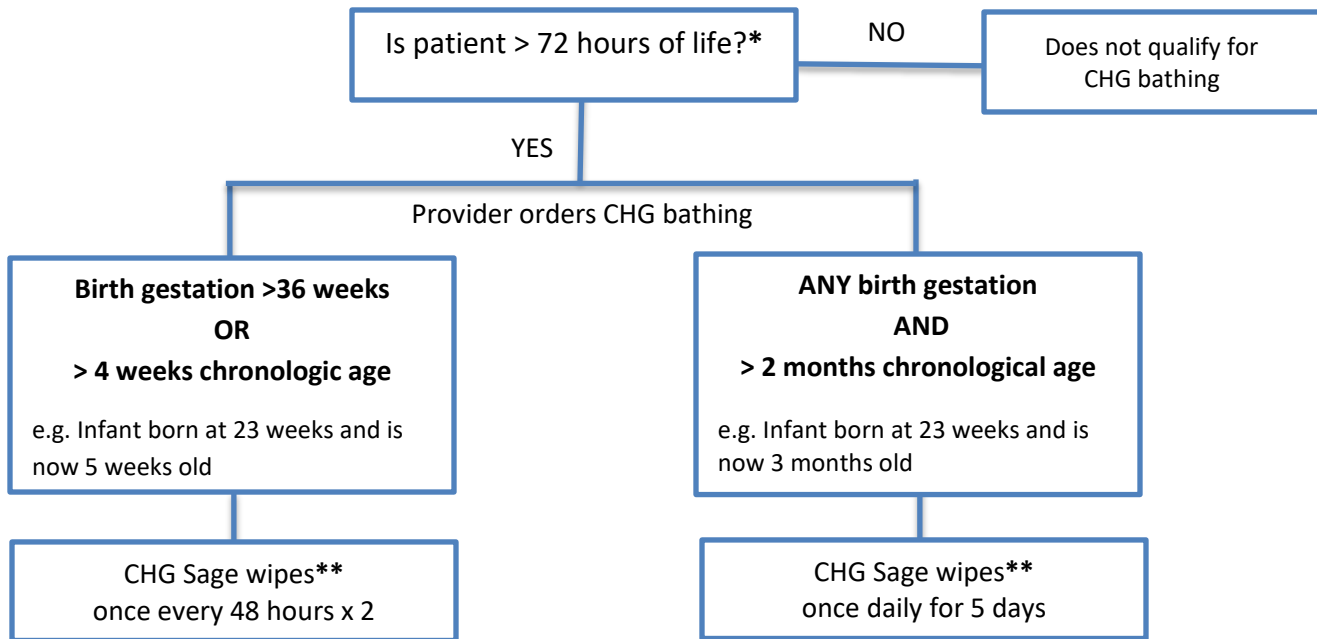
alginic acid	sodium benzoate
aluminum salts	sodium bicarbonate
aminomethylpropanol	sodium borate
ammonium lactate	sodium carbonate
benzoic acid	sodium carboxymethyl cellulose
boric acid	sodium caseinate
carbomer sodium	sodium cetearyl sulfate
cellulose gum	sodium chloride
chlorides	sodium citrate
citric acid	sodium cocoyl isethionate
disodium cocoamphodiacetate	sodium hyaluronate
glycine	sodium hydroxide
hydrolyzed collagen	sodium hypochlorite
lactic acid	sodium lactate
lauroamphoacetate	sodium laureth sulfate
lauroyl lactate	sodium lauryl sulfate
magnesium aluminum silicate	sodium metabisulfite
magnesium sulfate	sodium phosphate
minomethylpropanol	sodium stearate
morpholinium ethosulfate	sodium sulfite
olefin sulfonate	stearic acid
oleic acid	taurine
potassium phosphate	tetrasodium EDTA
potassium sorbate	triethanolamine
potassium stearate	triethanolamine stearate
proline	

*The above ingredient list is not intended to be all-inclusive

References: 1. Mangram AJ, et al., *Guideline for prevention of surgical site infection, 1999*. Centers for Disease Control and Prevention, Hospital Infection Control Practices Advisory Committee, Atlanta GA. 2. Denton GW, Chlorhexidine. In Seymour S. Block (Ed.) *Disinfection, sterilization, and preservation, 4th Edition*, Lea & Febiger, Williams & Wilkins, Media PA, 1991:279. 3. <http://www.medscape.com/druginfo/monograph?cid=med&drugid=4264&drugname=Chlorhexidine+Gluconate+Misc&monotype=monograph&secid=6> accessed 2/16/2010. 4. Marino C, Cohen M, Prevention of hand dermatitis in the health care setting. Safety and Health Assessment and Research for Prevention (SHARP) Program, Washington Department of Labor and Industries, Olympia WA, Jul 2001 (available at <http://www.lni.wa.gov/Safety/Research/Pubs>). 5. Benson, L et al. The effects of surfactant systems and moisturizing products on the residual activity of a chlorhexidine handwash using a pigskin substrate. *Infection Control Hospital Epidemiology* 1990; 11:67-70. 6. Frantz, SW et al. Chlorhexidine gluconate (CHG) activity against clinical isolates of vancomycin-resistant *Enterococcus faecium* (VREF) and the effects of moisturizing agents on CHG residue accumulation on the skin. *Journal of Hospital Infection* 1997; 37: 157-164.

CHLORHEXIDENE GLUCONATE BATHING (*continued*)

Appendix D: CHG Bathing for MRSA Decolonization (ICN Only)



Bathing procedure:

1. Immediately prior to bathing, carefully inspect skin for rashes and document carefully.
2. No rinsing after CHG bathing; infant may be bathed first as per ICN protocol then CHG bathing follows.
3. Only 2 cloths are needed for infants WITHOUT a CENTRAL LINE. For those infants with a central line, use a separate cloth (cloth #3) to clean the extremity with the central line.
 - a. Using cloth #1, wipe the neck, chest, abdomen, both arms, and back.
 - b. Using cloth #2, wipe both legs, buttocks and genital/anal area.
 - c. If using cloth #3 (for infants with a central line only), wipe the arm/leg, or chest area in which the central line is located with cloth #3, avoiding the dressing. Wipe the proximal 6 inches of the IV tubing.
4. Dispose of each cloth in the regular trash.

*Additional Exclusions:

NO CHG bathing will be used in these infants:

1. History of allergy
2. 72 hours of age or less, regardless of gestational age at birth
3. Unstable medical condition in which handling is contraindicated and/or may result in destabilization (unstable infants on iNO, pressors, etc.); evaluate every shift if infant may tolerate decolonization bathing
4. Infants with epidermolysis bullosa, or other significant skin disease/wounds or gastroschisis, oomphalocele, myelomeningocele, reservoirs/VP shunts (consult with medical team)

****Use CHG Sage wipes.** Do not use the Medline CHG wipes which contain alcohol and other ingredients which can be more irritating to the preterm skin. Stocked in ICN Yellow Zone Supply Room.

