

Reducing Infections, Hospitalizations, & Antibiotic-Resistant Pathogens in Nursing Homes through Universal Nasal Decolonization & Bathing with Chlorhexidine

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Grand Rounds
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The High Risk of Infections in Nursing Homes

- 1.3 million persons receive care in U.S. nursing homes each year
- On average, each resident has at least 2 infections per year
- Every year, nursing home residents experience:
 - 2 to 3 million nursing home-associated infections
 - 150,000 infection-related hospitalizations
 - 380,000 infection-related deaths

<https://health.gov/sites/default/files/2019-09/hai-action-plan-ltcf.pdf>

The Rise of MultiDrug-Resistant Organisms (MDROs)

In addition, there has been a steady rise of MDROs in healthcare

- Methicillin Resistant *Staphylococcus aureus* (MRSA)
- Vancomycin Resistant Enterococcus (VRE)
- MultiDrug-Resistant Pseudomonas
- Extended Spectrum Beta Lactamase Producers (ESBLs)
- Carbapenem Resistant Enterobacterales (CRE)
- Carbapenem Resistant *Acinetobacter baumannii* (CRAB)
- *Candida auris*

MDROs in Nursing Homes

Approximately 10-15% of hospitalized patients harbor an MDRO

In nursing homes, 50-65% of residents harbor an MDRO

High prevalence in nursing homes may be related to:

- Shared activities
- Shared rooms
- Longer lengths of stay
- More chronic illness and devices, including feeding tubes
- Less stringent hand hygiene, contact precautions vs hospitals

What is Decolonization and How Does It Work?

Decolonization: Pathogen Burden Reduction

Decolonization: use of topical antiseptic soaps and nasal ointments to reduce the body's bacteria during high-risk times for infection

Moments when our body bacteria becomes our own worst enemy

- Surgery
- Wounds
- Devices
- Difficulty with hygiene, clearance of secretions
- Hospitalization and nursing home stays

Why is Decolonization Needed?

Because human pathogen transmission is a cascade of unfortunate events

- Humans shed pathogens
 - Environment is contaminated
 - Contamination persists
 - Failure to clean or disinfect
 - Staff acquires pathogen
 - Staff fails to remove
 - Transfers to patient
 - Risk for infection

Interventions to Prevent Transmission

➤ Humans shed pathogens



Prevents shedding

➤ Environment is contaminated

➤ Contamination persists

➤ Failure to clean or disinfect

➤ Staff acquires pathogen

➤ Staff fails to remove

➤ Transfers to patient

Broad solution for all MDROs
Benefits carriers too

➤ Risk for infection

Which Products?

- **Most common products:**
 - chlorhexidine gluconate (CHG)
 - iodophor (povidone-iodine)
 - Mupirocin
- **Work better than soap and water**
- **Years of use in healthcare:**
 - CHG: >60 years
 - iodophor: >60 years
 - Mupirocin >20 years

Prior Precedence:

Clinical Trial Evidence for Decolonization in Hospitals

Use of Chlorhexidine

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- Antiseptic uses in healthcare
 - Hand antisepsis at 2% and 4%
 - Dental hygiene
 - 1990s: Cleaning of skin prior to line insertion
 - 1990s: Pre-operative bathing
 - 2000s: Surgical prep
 - 2000s: Pre-op *S. aureus* carriers
 - **2010s: Universal ICU bathing**
 - 2019: CHG for non-ICU bathing
 - 2019: Post-discharge CHG + mupirocin for MRSA carriers

ORIGINAL ARTICLE

Effect of Daily Chlorhexidine Bathing on Hospital-Acquired Infection

Michael W. Climo, M.D., Deborah S. Yokoe, M.D., M.P.H., David K. Warren, M.D., Trish M. Perl, M.D., Maureen Bolon, M.D., Loreen A. Herwaldt, M.D., Robert A. Weinstein, M.D., Kent A. Sepkowitz, M.D., John A. Jernigan, M.D., Kakotan Sanogo, M.S., and Edward S. Wong, M.D.

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Targeted versus Universal Decolonization to Prevent ICU Infection

Susan S. Huang, M.D., M.P.H., Edward Septimus, M.D., Ken Kleinman, Sc.D., Julia Moody, M.S., Jason Hickok, M.B.A., R.N., Taliser R. Avery, M.S., Julie Lankiewicz, M.P.H., Adrijana Gombosev, B.S., Leah Terpstra, B.A., Fallon Hartford, M.S., Mary K. Hayden, M.D., John A. Jernigan, M.D., Robert A. Weinstein, M.D., Victoria J. Fraser, M.D., Katherine Haffenreffer, B.S., Eric Cui, B.S., Rebecca E. Kaganov, B.A., Karen Lolans, B.S., Jonathan B. Perlin, M.D., Ph.D., and Richard Platt, M.D., for the CDC Prevention Epicenters Program and the AHRQ DECIDE Network and Healthcare-Associated Infections Program*

THE LANCET

Daily chlorhexidine bathing to reduce bacteraemia in critically ill children: a multicentre, cluster-randomised, crossover trial

Aaron M Milstone, Alexis Elward, Xiaoyan Song, Danielle M Zerr, Rachel Orscheml, Kathleen Speck, Daniel Obeng, Nicholas G Reich, Susan E Coffin, Trish M Perl, for the Pediatric SCRUB Trial Study Group

Summary

Background Bacteraemia is an important cause of morbidity and mortality in critically ill children. Our objective was to assess whether daily bathing in chlorhexidine gluconate (CHG) compared with standard bathing practices would reduce bacteraemia in critically ill children.

Use of Chlorhexidine

- Antiseptic uses in healthcare
 - Hand antisepsis at 2% and 4%
 - Dental hygiene
 - 1990s: Cleaning of skin prior to line insertion
 - 1990s: Pre-operative bathing
 - 2000s: Surgical prep
 - 2000s: Pre-op *S. aureus* carriers
 - 2010s: Universal ICU bathing
 - **2019: CHG for non-ICU bathing**
 - 2019: Post-discharge CHG + mupirocin for MRSA carriers

THE LANCET

Chlorhexidine versus routine bathing to prevent multidrug-resistant organisms and all-cause bloodstream infections in general medical and surgical units (ABATE Infection trial): a cluster-randomised trial

Susan S Huang, Edward Septimus, Ken Kleinman, Julia Moody, Jason Hickok, Lauren Heim, Adrijana Gombosov, Taliser R Avery, Katherine Haffenreffer, Lauren Shimelman, Mary K Hayden, Robert A Weinstein, Caren Spencer-Smith, Rebecca E Kaganov, Michael V Murphy, Tyler Forehand, Julie Lankiewicz, Micaela H Coady, Lena Portillo, Jalpa Sarup-Patel, John A Jernigan, Jonathan B Perlin, Richard Platt, for the ABATE Infection trial team

Use of Chlorhexidine

- Antiseptic uses in healthcare
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 - 2019: CHG for non-ICU bathing
 - **2019: Post-discharge CHG + mupirocin for MRSA carriers**

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ORIGINAL ARTICLE

Decolonization to Reduce Postdischarge Infection Risk among MRSA Carriers

S.S. Huang, R. Singh, J.A. McKinnell, S. Park, A. Gombosev, S.J. Eells, D.L. Gillen, D. Kim, S. Rashid, R. Macias-Gil, M.A. Bolaris, T. Tjoo, C. Cao, S.S. Hong, J. Lequieu, E. Cui, J. Chang, J. He, K. Evans, E. Peterson, G. Simpson, P. Robinson, C. Choi, C.C. Bailey, Jr., J.D. Leo, A. Amin, D. Goldmann, J.A. Jernigan, R. Platt, E. Septimus, R.A. Weinstein, M.K. Hayden, and L.G. Miller, for the Project CLEAR Trial

Universal Decolonization Trials in Hospitals

Trial	Setting	N	Intervention	Decolonization Impact
Climo et al. ICU Trial ¹	7 Academic Hospitals 9 Adult ICUs	7700	Daily CHG	23% ↓ MRSA/VRE acquisition 28% ↓ Bloodstream infections
Pediatric Scrub Trial ²	5 Academic Hospitals 10 Pediatric ICUs	1500	Daily CHG	36% ↓ Bloodstream infections
REDUCE MRSA Trial ³	43 Community Hospitals 74 Adult ICUs	74,000	Daily CHG 5d bid mupirocin	37% ↓ MRSA clinical cultures 44% ↓ Bloodstream infections
Mupirocin-Iodophor Swap Out Trial ⁴	137 Community Hospitals 233 Adult ICUs	353,000	Mupirocin-CHG vs Iodophor-CHG	Mupirocin superior to Iodophor by 18% for <i>S. aureus</i> ; 14% for MRSA
ABATE Infection Trial ⁵	53 Community Hospitals 194 Adult Non-ICUs	340,000	Daily CHG Mupirocin if MRSA+	Subset effect in patients with devices: 37% ↓ MRSA/VRE clinical cultures 32% ↓ Bloodstream infections
CLEAR Trial ⁶	Post Hospital Discharge	2,100	CHG, Mupirocin qowek x 6 mo	30% ↓ MRSA Infection at 1y 17% ↓ All infection; 85% rehospitalized

¹ Climo MW et al. NEJM 2013;368:533-542

² Milstone AM et al. Lancet 2013;381(9872):1099-1106

³ Huang SS et al. NEJM 2013;368:2255-2265

⁴ Huang SS et al. JAMA 2023;330(14):1337-1347

⁵ Huang SS et al. Lancet 2019;393(10177):1205-1215

⁶ Huang SS et al. NEJM 2019;380:638-650

The Evidence for Decolonization in Nursing Homes

The Evidence

Two studies

- SHIELD Regional Collaborative
- Protect Trial

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ORIGINAL ARTICLE

Decolonization in Nursing Homes to Prevent Infection and Hospitalization

L.G. Miller, J.A. McKinnell, R.D. Singh, G.M. Gussin, K. Kleinman, R. Saavedra, J. Mendez, T.D. Catuna, J. Felix, J. Chang, L. Heim, R. Franco, T. Tjoa, N.D. Stone, K. Steinberg, N. Beecham, J. Montgomery, D.A. Walters, S. Park, S. Tam, S.K. Gohil, P.A. Robinson, M. Estevez, B. Lewis, J.A. Shimabukuro, G. Tchakalian, A. Miner, C. Torres, K.D. Evans, C.E. Bittencourt, J. He, E. Lee, C. Nedelcu, J. Lu, S. Agrawal, S.G. Sturdevant, E. Peterson, and S.S. Huang

Research

JAMA | Original Investigation

Reducing Hospitalizations and Multidrug-Resistant Organisms via Regional Decolonization in Hospitals and Nursing Homes

Gabrielle M. Gussin, MS; James A. McKinnell, MD; Raveena D. Singh, MA; Loren G. Miller, MD, MPH; Ken Kleinman, ScD; Raheeb Saavedra, AS; Thomas Tjoa, MPH, MS; Shruti K. Gohil, MD, MPH; Tabitha D. Catuna, MPH; Lauren T. Heim, MPH; Justin Chang, MD; Marlene Estevez, BA; Jiayi He, MS; Kathleen O'Donnell, MPH; Matthew Zahn, MD; Eunjung Lee, MD, PhD; Chase Berman, BS; Jenny Nguyen, BA; Shalini Agrawal, BS; Isabel Ashbaugh, MSc; Christine Nedelcu, BS; Philip A. Robinson, MD; Steven Tam, MD; Steven Park, MD, PhD; Kaye D. Evans, BA, MT; Julie A. Shimabukuro, BS; Bruce Y. Lee, MD, MBA; Emily Fonda, MD, MMM; John A. Jernigan, MD, MS; Rachel B. Slayton, PhD, MPH; Nimalie D. Stone, MD, MS; Lynn Janssen, MS; Robert A. Weinstein, MD; Mary K. Hayden, MD; Michael Y. Lin, MD, MPH; Ellena M. Peterson, PhD; Cassiana E. Bittencourt, MD; Susan S. Huang, MD, MPH; for the CDC Safety and Healthcare Epidemiology Prevention Research Development (SHEPHERD) Program

SHIELD OC: 35 Facility Decolonization Intervention

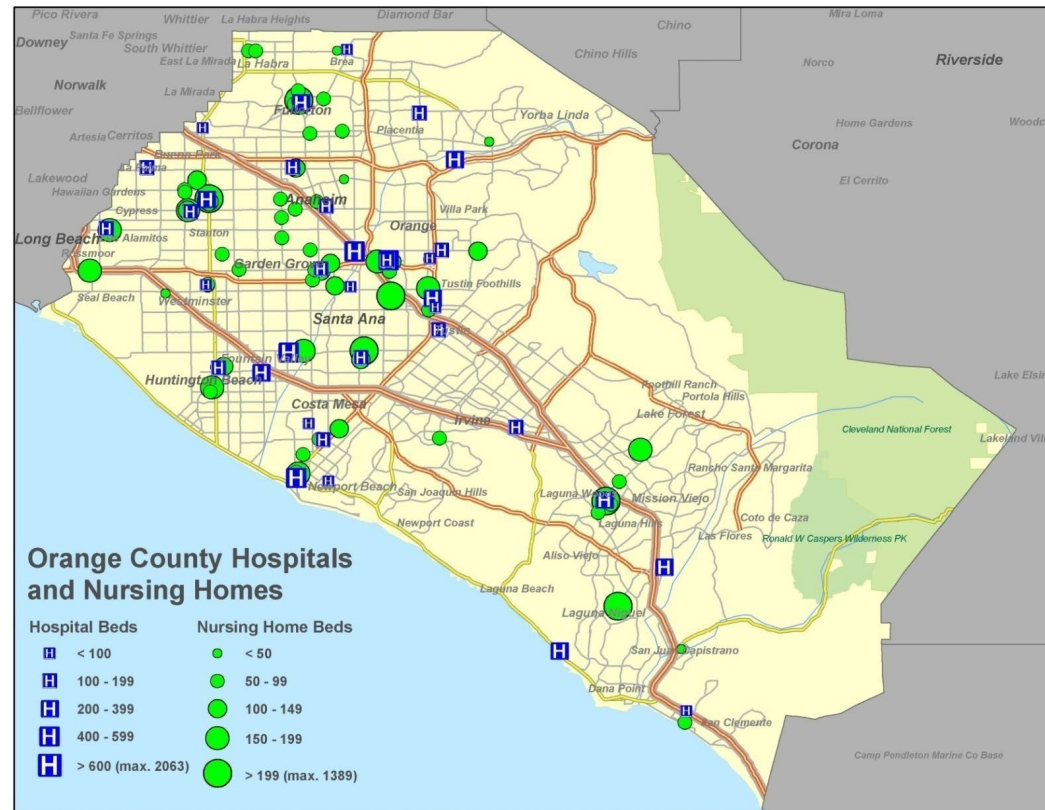
- **28-month regional intervention:** April 2017-July 2019
- **Participants:** 16 nursing homes (NHs), 3 long-term acute care hospitals (LTACHs), 16 hospitals with high patient sharing in Orange County, CA
- **NHs and LTACHs:** universal decolonization
 - ✓ Chlorhexidine (CHG) antiseptic soap for routine bathing/showering
 - ✓ Nasal iodophor for 5d on admission and every other week
- **Hospitals:** decolonize patients on contact precautions
 - ✓ Daily CHG bathing/showering
 - ✓ Nasal iodophor decolonization for 5 days
 - ✓ Support ongoing ICU CHG daily bathing

Orange County, California

3.2 million population

32 hospitals

70 nursing homes



Characteristics of SHIELD OC Facilities

Variable	NH	LTACH	Hospital
Mean age	76	72	47
% Male	40%	53%	42%
Mean Licensed Beds	133	83	247
Average Daily Census	115	63	141
Mean LOS	69.3	30.6	4.1
Elixhauser Comorbidity Score	3.8	2.9	1.9
% Diabetes	36%	13%	12%
% Chronic Lung Disease	22%	21%	11%
% Chronic Kidney Disease	21%	23%	8%

SHIELD Nursing Home Impact: 23% MDRO Reduction

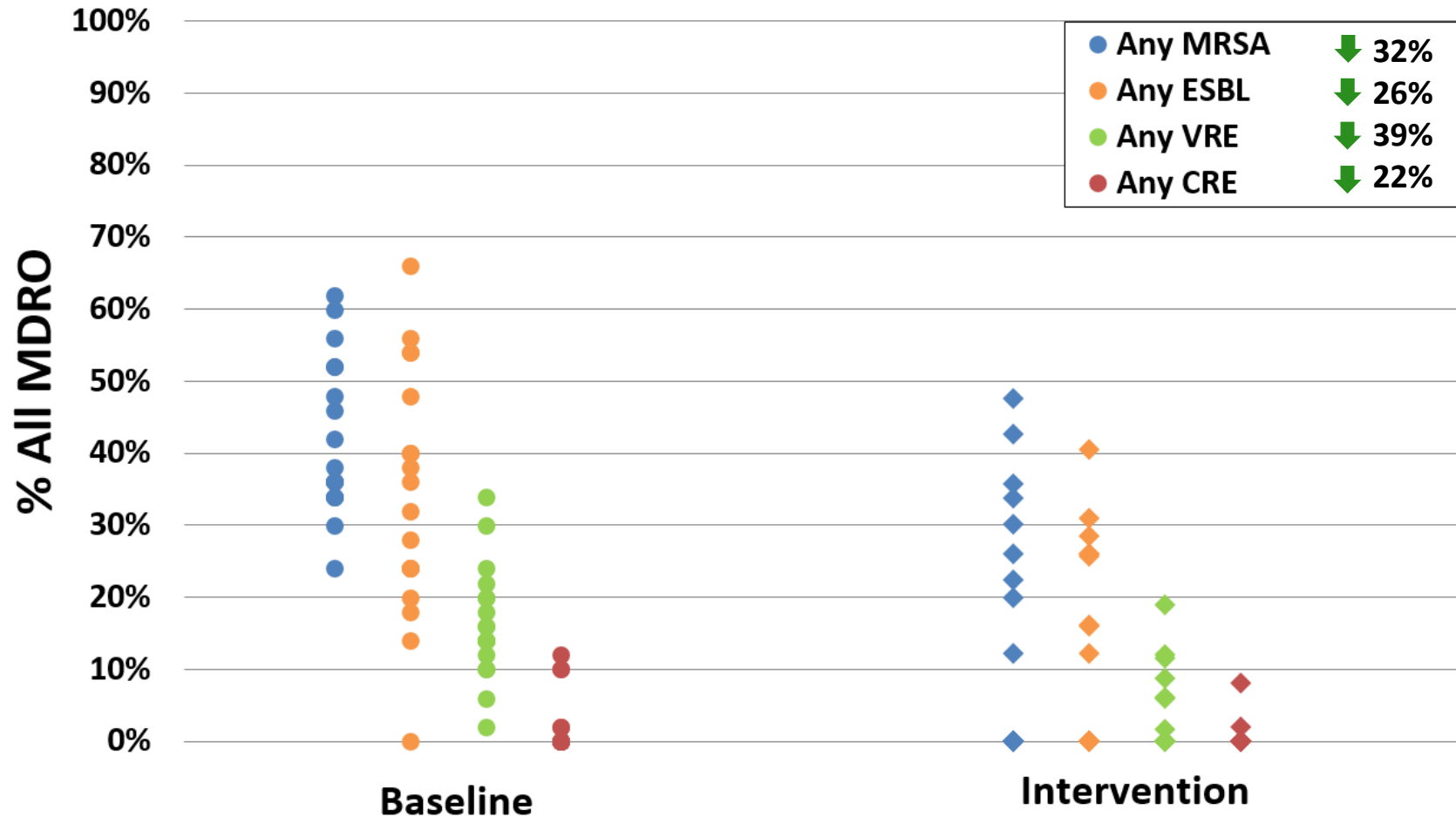


Figure 1. MDRO Point Prevalence (Screening) Among Facilities Participating in the Regional Decolonization Collaborative, Baseline and End of Intervention

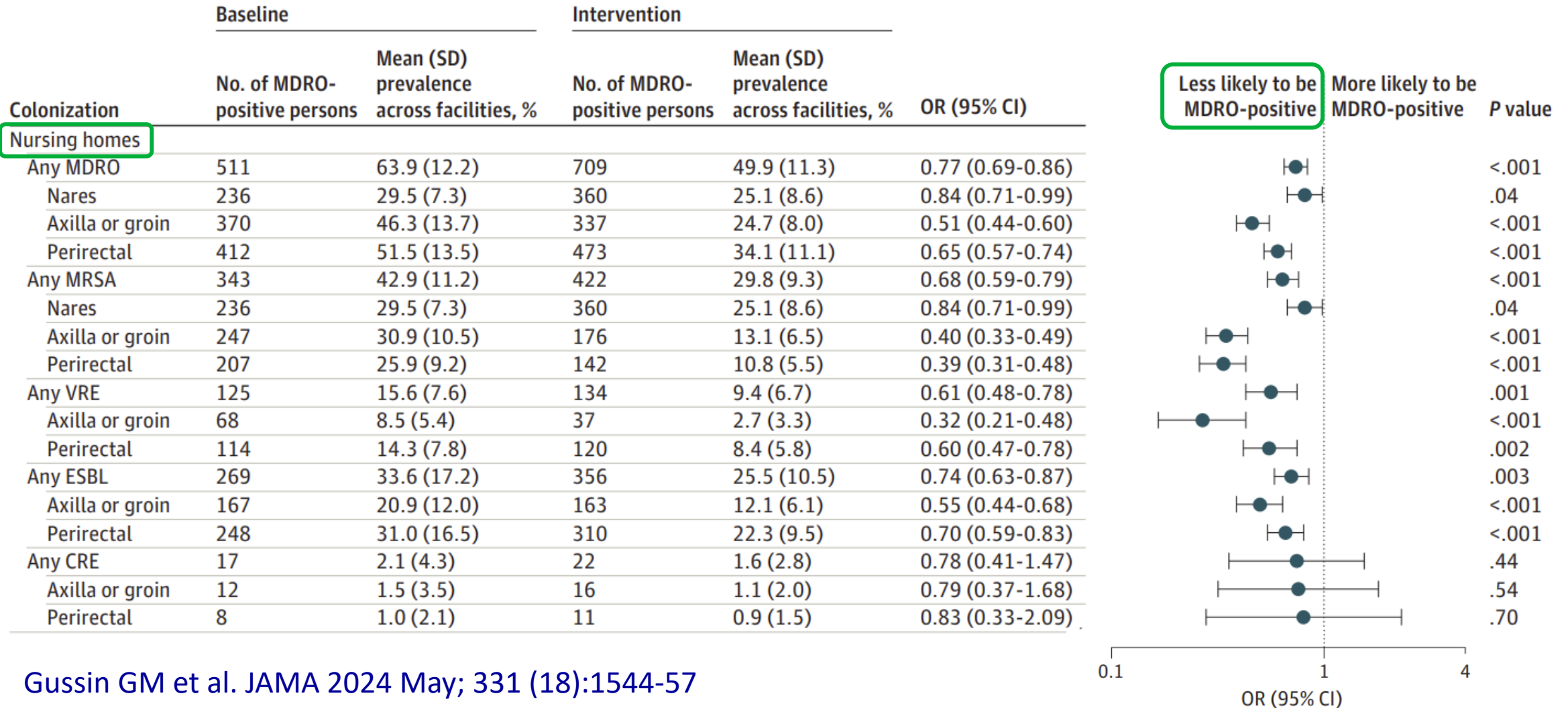


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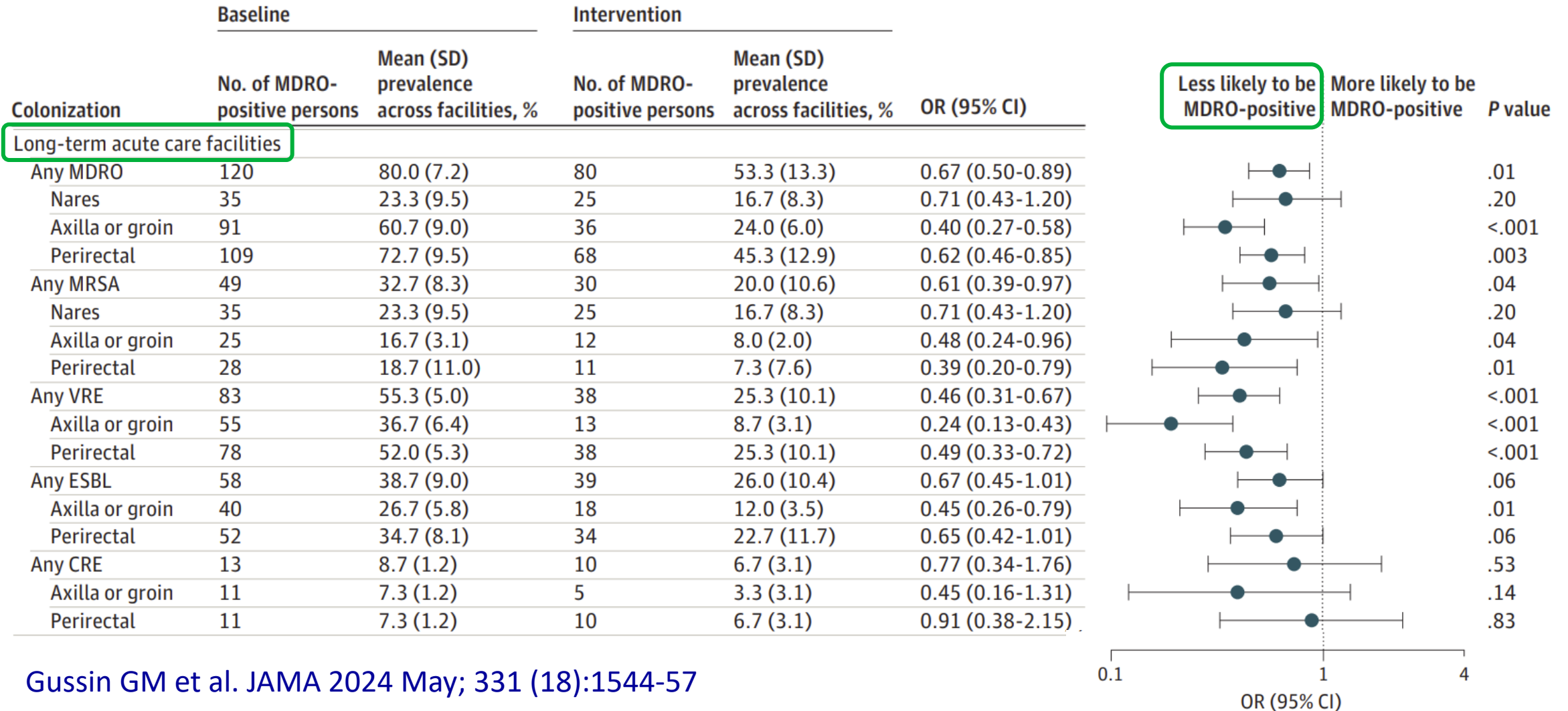
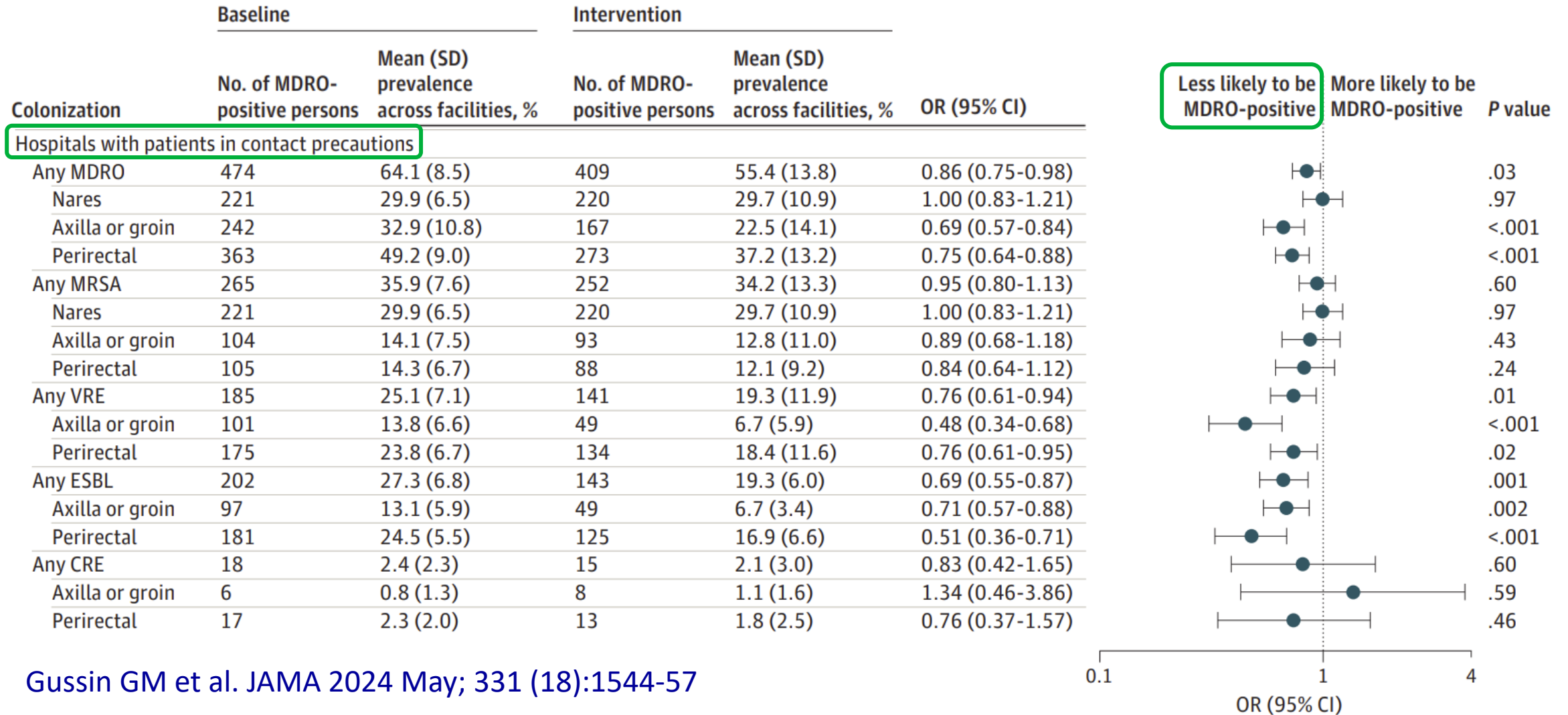
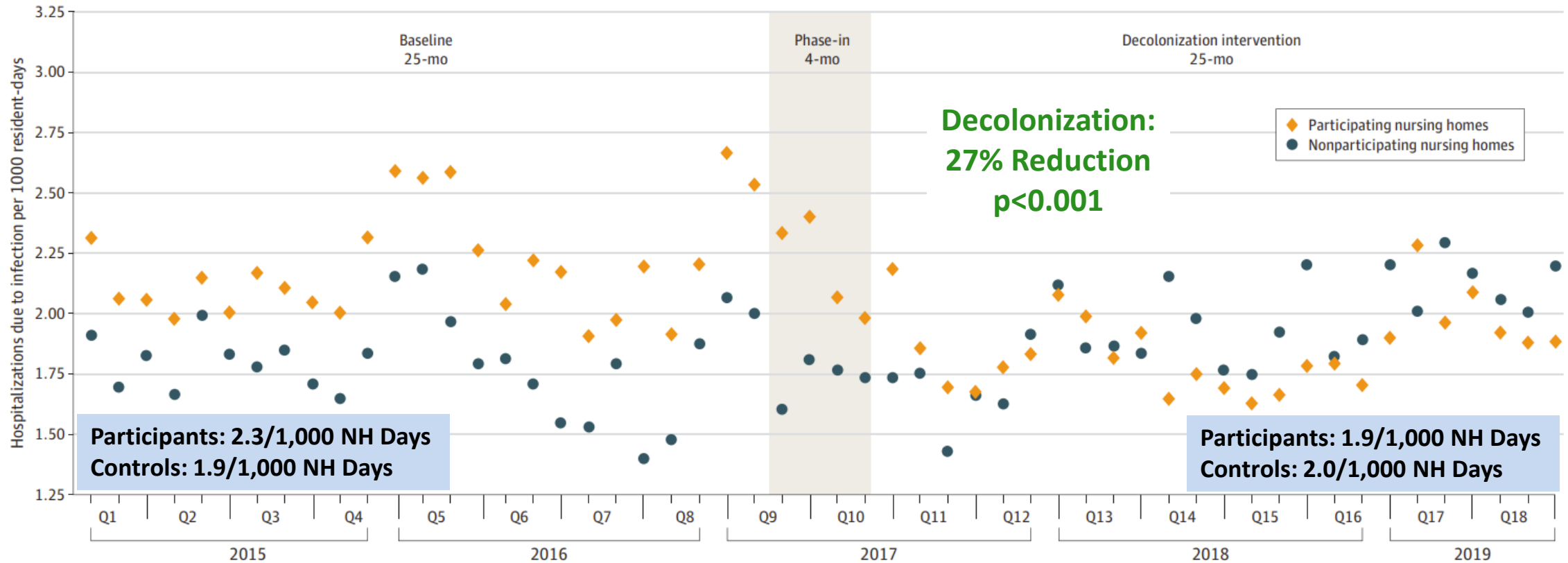


Figure 1. MDRO Point Prevalence (Screening) Among Facilities Participating in the Regional Decolonization Collaborative, Baseline and End of Intervention



Impact: NH Hospitalizations Due to Infection

Figure 5. Monthly Infection-Related Hospitalization Rates Among Nursing Homes Residents in Participating (Decolonization) vs Nonparticipating Nursing Homes



Impact: NH Hospitalization-Related Costs & Deaths

Costs Associated with Infection-Related Hospitalization					
Decolonization Group	Costs per 1,000 Resident Days		Adjusted Analysis ^b		
	Baseline	Intervention	Clustered Cost Ratio	Group-By-Period Interaction Effect	
				% Reduction (95% CI)	P-value
Participant	\$64,651	\$55,149	0.96	-26.8%	<0.001
Non-Participant	\$55,151	\$59,327	1.31	(-26.7, -26.9)	
Deaths Associated with Infection-Related Hospitalization					
Decolonization Group	Events per 1,000 Resident Days		Adjusted Analysis ^b		
	Baseline	Intervention	Clustered Hazard Ratio	Group-By-Period Interaction Effect	
				% Reduction (95% CI)	P-value
Participant	0.29	0.25	0.62	-23.7%	0.006
Non-Participant	0.23	0.24	0.81	(-4.5, -43.0)	

The Protect Trial

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ORIGINAL ARTICLE

Decolonization in Nursing Homes to Prevent Infection and Hospitalization

L.G. Miller, J.A. McKinnell, R.D. Singh, G.M. Gussin, K. Kleinman, R. Saavedra, J. Mendez, T.D. Catuna, J. Felix, J. Chang, L. Heim, R. Franco, T. Tjoa, N.D. Stone, K. Steinberg, N. Beecham, J. Montgomery, D.A. Walters, S. Park, S. Tam, S.K. Gohil, P.A. Robinson, M. Estevez, B. Lewis, J.A. Shimabukuro, G. Tchakalian, A. Miner, C. Torres, K.D. Evans, C.E. Bittencourt, J. He, E. Lee, C. Nedelcu, J. Lu, S. Agrawal, S.G. Sturdevant, E. Peterson, and S.S. Huang

Miller LG et al. NEJM 2023 (Nov 9); 389:1766-1777

The Protect Trial

Pragmatic Trial

- 28 nursing homes
- Involved nearly 14,000 residents
- All activities performed by usual nursing home staff

Group 1: Routine Care

- Usual soap for showering/bathing

Group 2: Decolonization

- CHG for all bathing/showering
- Nasal iodophor for all residents, M-F twice daily, every other week

Baseline Characteristics of Nursing Homes

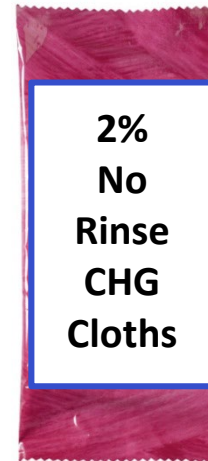
Variable	Decolonization Arm	Routine Arm
	Mean (SD)	
Number of Facilities	14	14
Mean Age	74.8 (5.2)	77.1 (5.4)
% Male	42.8 (5.8)	41.9 (10.2)
Mean Licensed Beds	117.9 (36.4)	114.6 (55.8)
Average Daily Census	109.4 (35.8)	102.0 (36.6)
Length of Stay	216.2 (29.9)	217.8 (16.4)
Elixhauser Comorbidity Score	3.6 (0.4)	3.6 (0.6)
% Diabetes	37.7 (6.3)	40.0 (7.0)
% Chronic Lung Disease	26.2 (14.6)	26.8 (12.6)
% Renal Failure	20.1 (5.8)	21.0 (6.8)

CHG for All Routine Bathing and Showering

- Liquid CHG for showering
 - 4% rinse off CHG
- CHG cloths for bed bathing
 - 2% leave on CHG



4% rinse off for shower



2%
No
Rinse
CHG
Cloths



2% cloths for bath

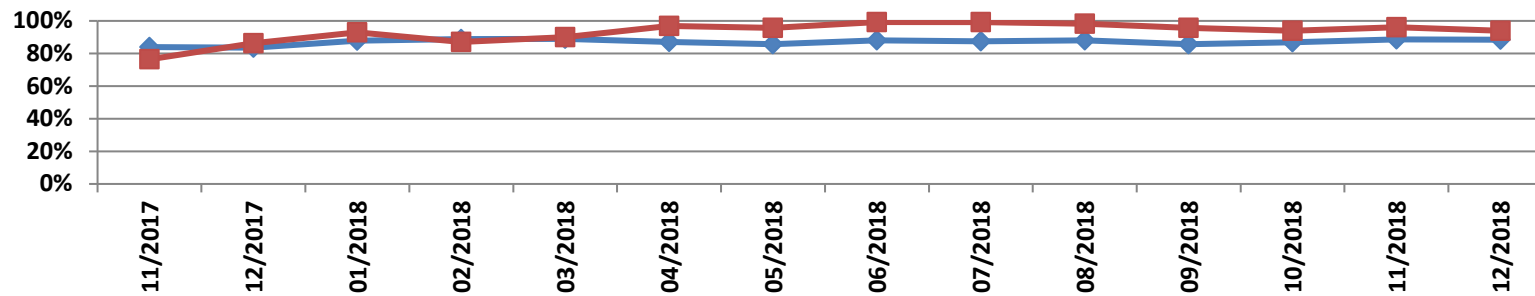
Iodophor for Nasal Decolonization

- 10% povidone-iodine swabs (iodophor) to each nostril
- Facility-wide universal strategy
- Twice daily for 5 days
- On admission and M-F every other week

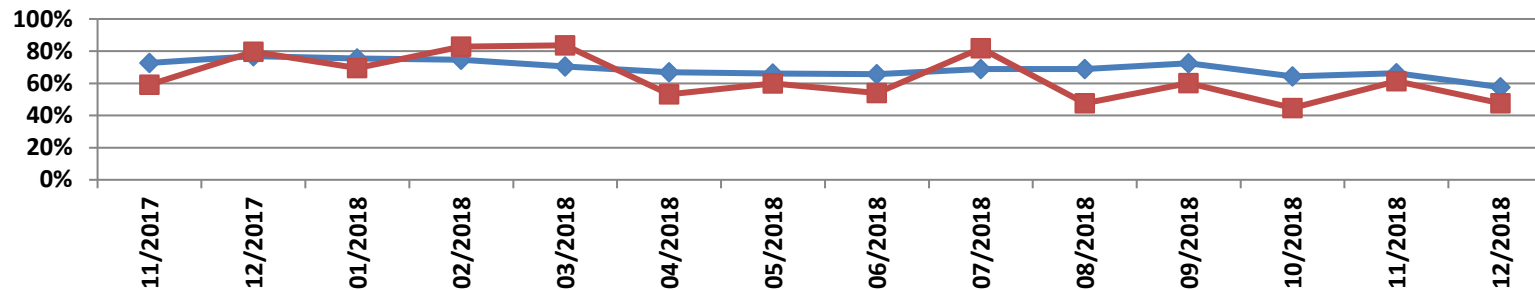


Intervention: CHG and Iodophor Adherence

CHG



Iodophor



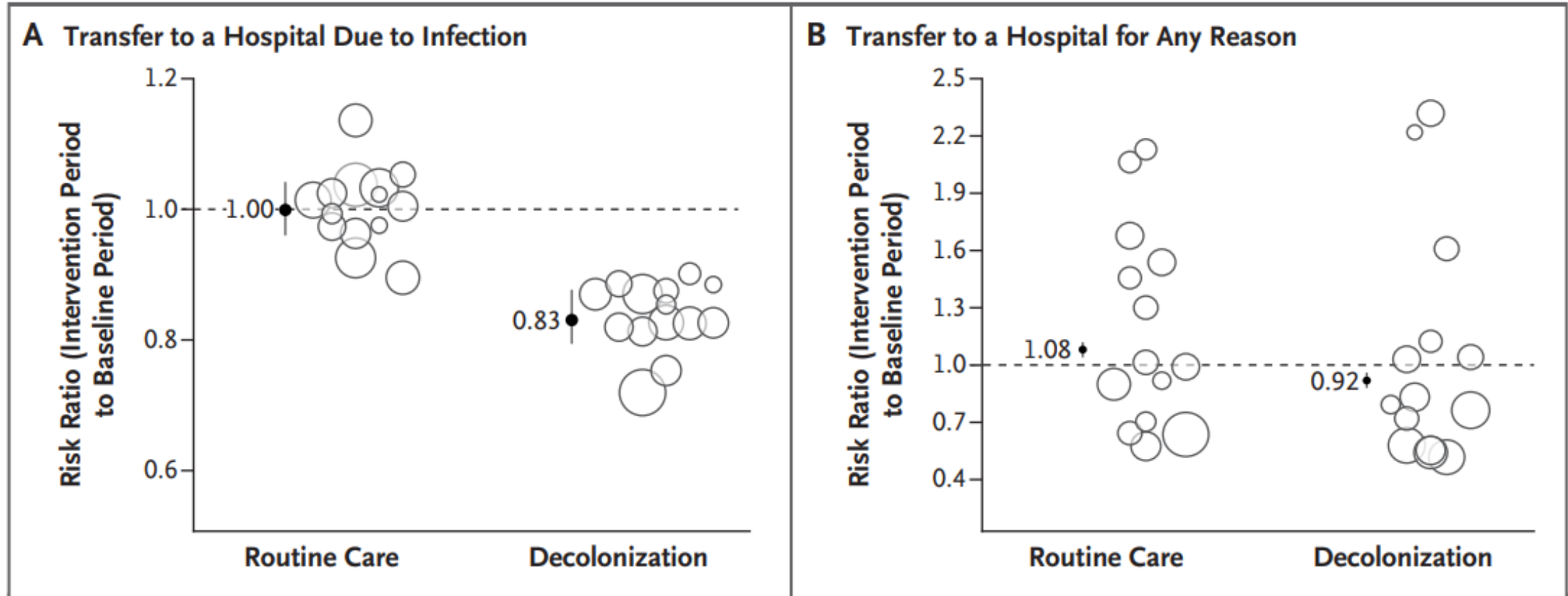
■ Admission Bathing ◆ Post Admission Bathing

MDRO Carriage Reduction (Skin/Nares)

Table 3. Prevalence of MDRO Carriage during the Baseline Period and near the End of the Intervention Period.*

MDRO or sample	Prevalence in the Routine-Care Group		Prevalence in the Decolonization Group		Risk Ratio (95% CI)†
	Baseline (N=700)	Intervention (N=650) <i>percent (number of positive samples)</i>	Baseline (N=700)	Intervention (N=550)	
Any MDRO	48.3 (338)	47.2 (307)	48.9 (342)	32.0 (176)	0.70 (0.58–0.84)
Any MRSA	37.6 (263)	36.9 (240)	36.4 (255)	25.1 (138)	0.73 (0.59–0.92)
Nostril swab sample	29.1 (203)	27.1 (176)	29.9 (209)	22.0 (121)	0.81 (0.62–1.05)
Skin swab sample	26.1 (183)	25.4 (165)	22.6 (158)	11.6 (64)	0.58 (0.42–0.79)
VRE	5.9 (41)	5.1 (33)	8.3 (58)	2.2 (12)	0.29 (0.14–0.62)
ESBL producer	15.9 (111)	17.9 (116)	16.7 (117)	9.2 (51)	0.50 (0.34–0.75)
CRE	1.4 (10)	0.6 (4)	0.4 (3)	0.4 (3)	3.53 (0.44–28.52)

Significant Impact on Reasons for Hospitalization



Trial Outcomes

Outcome	Infection-Related Hospitalization	Any Hospitalization
Reason among hospitalizations Reason among discharges	17% reduction in infection-related hospitalizations, among hospitalized	15% reduction in hospitalizations, among discharged
Per 1,000 Resident Days	31% reduction in infection-related hospitalizations per 1,000 resident days	18% reduction in hospitalizations per 1,000 resident days
Number Needed to Treat (NNT)	9.7 residents	8.9 residents

1.9 infection-related hospitalizations averted per month per 100-bed nursing home

Implementation Steps

Step 1: Assess Readiness for Adoption

- Nursing home leadership sees value, need to reduce
 - Infections
 - Hospitalizations
 - MDRO pathogens (65% of residents colonized, common outbreak source)
 - Gram positives: MRSA, VRE
 - Gram negatives: ESBL, CRE, CRAB
 - Fungi: *C. auris*

Decolonization Benefits in Nursing Homes

The below results are from the Protect Trial and were redemonstrated during the SHIELD regional intervention, both of which involved pragmatic adoption of decolonization in nursing homes.

Residents less colonized by MDROs

- ✓ Any MDRO **30% reduction**
- ✓ MRSA **27% reduction**
- ✓ VRE **71% reduction**
- ✓ ESBL **50% reduction**

Decolonization results in fewer MDROs, less MDRO colonization, and fewer residents on contact precautions

Residents less likely to be hospitalized

- ✓ Overall hospitalization rate **18% reduction**
 - 1 hospitalization prevented for every 9 residents treated
- ✓ Infection hospitalization rate **31% reduction**
 - 1 infection-related hospitalization prevented for every 10 residents treated

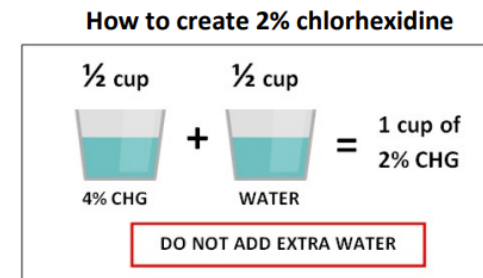
Decolonization prevents 1.9 infection-related hospitalizations *per month per 100 beds*

Step 2: Agree to Investment for Quality & Cost Savings

- Universal decolonization requires leadership support to
 - Adopt as Quality Assurance/Performance Improvement (QAPI) Program
 - Prepare for a campaign
 - Purchase products
 - Designate champions



4% rinse off CHG
for showers



Create 2% leave-on CHG
for bed baths



Nasal Iodophor
Swabs

Decision Making and Costs

Estimated Monthly Savings for a 100-Bed Nursing Home = \$860



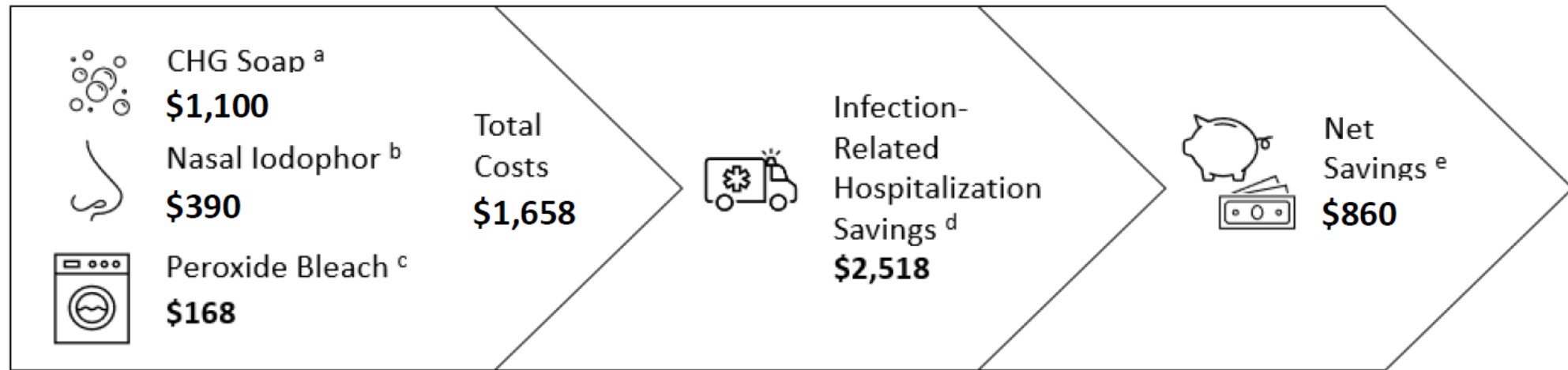
a. **Switching from regular soap to CHG soap**

- Assumes baseline use of 50 gallons regular soap/month at \$20/gallon (gal) = \$1,000/mo
- Assumes 35 gal of CHG at \$60/gal = \$2,100/mo (CHG protocol uses less volume of soap)
- Difference = \$1,100 added product cost/month

b. **Purchasing nasal iodophor.** \$6.95 for box of 50 swabs. At perfect compliance, a 100-bed nursing home uses: 2 swabs (one/nostril) x 2 times/day x 10 days/month x 100 residents = 4,000 swabs (80 boxes). Studies suggest 70% compliance, at cost of \$390/mo.

Decision Making and Costs

Estimated Monthly Savings for a 100-Bed Nursing Home = \$860



- c. **Switching from chlorine to peroxide bleach.** Estimated costs are for 20 gal/month. Chlorine bleach: \$65/5-gal or \$260/mo. Peroxide: \$107/5-gal or \$428/mo. Difference per month is \$168. Some laundry contracts with a fixed price per bed do not incur additional cost when switching from chlorine to peroxide bleach.
- d. **Decolonization prevents 1.9 infection-related hospitalizations per month per 100 beds.** A 100-bed nursing home would save \$2,518 per month by preventing 5.3 bed-hold days per hospitalization at \$250 per day.

Step 3: Checklist

- Purchase product
 - 4% Chlorhexidine
 - 10% Povidone-Iodine swab sticks (generic)
 - Non-cotton disposable dry wipes or cloths
 - Cotton binds CHG and does not release well to skin
- Switch from chlorine to peroxide bleach
 - Chlorine and CHG can mix in the laundry and leave a brown stain
 - Ensure several laundry runs with peroxide occur before CHG adopted
- Confirm lotions and skin products are CHG compatible
 - Call manufacturers to confirm skin products are compatible.

Step 4: Prepare to Launch

- Benefit tied to ensuring proper process
 - Designate MD, RN, LVN, and CNA champions
 - Create a training plan
 - Plan to report feedback and improvement to champions, QA meeting
 - Plan to track outcomes

Nursing Home Decolonization Toolkit

Step 1: Adopt SHIELD program as Quality Assurance Performance Improvement (QAPI)

1. QAPI Project Documentation Form ([PDF](#)) ([DOC](#))
2. Universal Plan of Care ([PDF](#)) ([DOC](#))
3. Resident Plan of Care ([PDF](#)) ([DOC](#))
4. Pre-Launch Checklist for the Infection Preventionist ([PDF](#)) ([DOC](#))

Step 2: What to Expect? ([PDF](#)) ([DOC](#))

Step 3: Communication to Residents

1. Admission Packet Letter ([PDF](#)) ([DOC](#))
2. Resident/Ombudsman Information Sheet ([PDF](#)) ([DOC](#))

Step 4: Products & Protocols

1. Products ([PDF](#)) ([DOC](#))
2. CHG Compatibility ([PDF](#)) ([DOC](#))
3. Protocol: Bed Bath With CHG Cloths ([PDF](#)) ([DOC](#))
4. Protocol: Bed Bath With CHG Liquid ([PDF](#)) ([DOC](#))
5. Protocol: Showering With CHG ([PDF](#)) ([DOC](#))
6. Protocol: Nasal Iodophor ([PDF](#)) ([DOC](#))
7. Order Set Examples ([PDF](#))
8. Admission – SHIELD Checklist ([PDF](#)) ([DOC](#))

ucihealth.org/shield

Step 5: Staff Education & Training

1. Paper or Computer Based Training ([PDF](#)) ([PPT](#))
2. Staff Post-Training Test and Answer Key: Basin Bed Bathing
3. Staff Post-Training Test and Answer Key: CHG Cloths ([PDF](#))
4. Physician and Staff Notification Flyer ([PDF](#)) ([DOC](#))
5. Staff Handouts for CHG Bathing/Showering ([PDF](#)) ([PUB](#))
6. Staff Handout for Basin Bed Bathing With CHG ([PDF](#)) ([PUB](#))
7. Staff Handout for Nasal Iodophor ([PDF](#)) ([PUB](#))
8. Staff Huddle Reminder Documents ([PDF](#)) ([DOC](#))
9. FAQ: General ([PDF](#)) ([DOC](#))
10. FAQ: Nasal Iodophor ([PDF](#)) ([DOC](#))
11. FAQ: CHG for Bathing ([PDF](#)) ([DOC](#))
12. FAQ: Wound Care ([PDF](#)) ([DOC](#))
13. FAQ: Do and Don't ([PDF](#)) ([DOC](#))

Step 6: Resident Education & Training

1. Resident Handout for CHG Bed Bath ([PDF](#)) ([PUB](#))
2. Resident Handout for CHG Shower ([PDF](#)) ([PUB](#))
3. Resident Handout for Nasal Iodophor ([PDF](#)) ([PUB](#))
4. Waterproof Shower Poster for Residents ([PDF](#)) ([DOC](#))
5. Resident Talking Points: CHG ([PDF](#)) ([DOC](#))
6. Resident Talking Points: Iodophor ([PDF](#)) ([DOC](#))

Step 7: Skills Assessments and Compliance Checks

1. CHG Cloth Skills Assessment Checklist ([PDF](#)) ([DOC](#))
2. CHG Liquid Bed Bath Skills Assessment Checklist ([PDF](#)) ([DOC](#))
3. Resident Self-Showering Assessment ([PDF](#)) ([DOC](#))
4. Resident Self-Bed Bath Assessment ([PDF](#)) ([DOC](#))

Step 8: Safety and Side Effects

1. Safety and Side Effects ([PDF](#)) ([DOC](#))
2. Side Effect Tracking Form ([PDF](#)) ([DOC](#))

Nursing Home Decolonization Toolkit

Prevent infections during each nursing home stay
BATHE or SHOWER with Chlorhexidine (CHG) soap

STAFF

Bathe with CHG to remove germs and prevent infection
 CHG works better than soap and water
 CHG is a protective bath
 CHG cloths are less drying than soap
 Apply as shown below

REMINDEERS

- Your enthusiasm helps residents understand why CHG is important
- Bathing on admission removes germs to protect the resident and nursing home
- CHG works for 24 hours to kill germs
- Firmly massage CHG onto skin
- Clean 6 inches of lines, drains, tubes
- Safe on surface wounds, rashes, burns
- Use only CHG-compatible lotions
- If barrier protection needed, apply CHG then apply barrier protection

Clean all skin areas with attention to:

- Neck
- All skin folds
- Skin around all devices (line/tube/drain)
- Wounds unless deep or large
- Armpit, groin, between fingers/toes

SHOWERING with CHG soap

- Rinse body with warm water
- Wash hair and face with CHG
- Avoid getting into eyes and ears
- Turn off water and lather mesh sponge with plenty of CHG
- Massage CHG onto all skin areas
- Leave CHG on for 2 minutes then rinse

BATHING with CHG cloths

- Tell residents these cloths are their protective bath
- Use all 6 cloths. More, if needed.
- Firmly massage skin with cloth
- Clean over semi-permeable dressings
- Clean 6 inches of lines, tubes, and drains
- Air dry. Do not wipe off.
- Put used cloths in trash. **Do not flush.**

Avoid eyes, mouth, & ear canals

Prevent infections during each nursing home stay
BASIN BED BATHING with Chlorhexidine (CHG) Liquid

STAFF

Bathe with CHG to remove germs and prevent infection
 CHG works better than soap and water
 CHG is a protective bath
 Apply as shown below

BASIN BATH Instructions

- Prepare 4% liquid CHG, a measuring cup, a bed basin, and 6 disposable wipes (more if needed).
- Dispense 1/2 cup of 4% CHG liquid into basin.
- Add 1/2 cup of water. **Do not dilute more than equal part of water to CHG.**

- Soak wipes in basin and wring before use. Do not place back into basin after use.
- Firmly massage skin with wipes.
- Clean over semi-permeable dressings.
- Clean 6 inches of lines, tubes, and drains.

REMINDEERS

- Your enthusiasm helps residents understand why CHG is important
- Bathing on admission removes germs to protect the resident and nursing home
- CHG works for 24 hours to kill germs
- Firmly massage CHG onto skin
- Clean 6 inches of lines, drains, tubes
- Safe on surface wounds, rashes, burns
- Use only CHG-compatible lotions
- If barrier protection needed, apply CHG then apply barrier protection

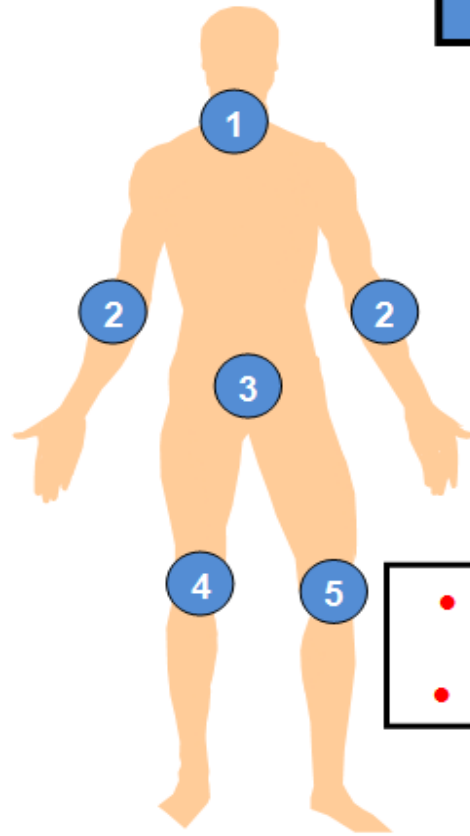
Clean all skin areas with attention to:

- Neck
- All skin folds
- Skin around all devices (line/tube/drain)
- Wounds unless deep or large
- Armpit, groin, between fingers/toes

Avoid eyes, mouth, & ear canals

Apply Chlorhexidine **WITH FIRM MASSAGE** to remove bacteria

USE ALL 6 CHG CLOTHS
Avoid EYES & EAR CANAL



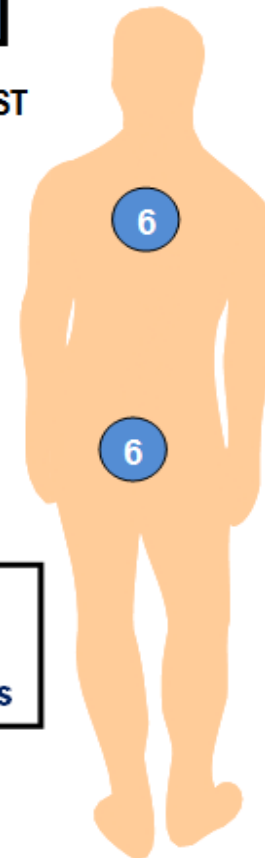
FRONT

- 1 FACE, NECK SHOULDERS & CHEST
- 2 BOTH ARMS & HANDS
- 3 ABDOMEN, GROIN & PERINEUM
- 4 RIGHT LEG & FOOT
- 5 LEFT LEG & FOOT
- 6 BACK, THEN BUTTOCKS

- Clean 6 inches of all tubes, lines, and drains closest to patient with CHG
- Safe on superficial wounds, rash, burns

Skin may feel sticky for a few minutes after CHG application.

Do NOT wipe off. Allow to air dry.



BACK

THIS IS a PROTECTIVE BATH
Do not use soap which can inactivate CHG

Decolonization FAQs



Shared
Healthcare
Intervention to
Eliminate
Life-threatening
Dissemination of MDROs

Frequently Asked Questions Chlorhexidine for Bathing

What is chlorhexidine (CHG) and how safe is it?

CHG is an over-the-counter antiseptic agent that helps to reduce the amount of germs on your skin, including antibiotic-resistant germs such as MRSA. CHG is cleared for this purpose. CHG has an excellent safety profile and has been used in healthcare for over 60 years. Although allergic reactions to CHG are rare, they do occur. Most of them are limited to the site of application and include irritation, rash or redness, which resolves with discontinuation.

What if my resident refuses a bath?

Residents have the right to refuse any medical care. Staff need to assess why the resident is refusing at this time (e.g. tired, in pain, irritable), or why the resident is refusing all together and if the resident understands the value of the protective bath (e.g. to prevent infection due to MRSA or other bacteria). Of course, the resident does not wish to have this done, it is their right to refuse.

If the staff member believes that the resident is stating that it's not the best time then the staff should offer and encourage a bath at a later time. Residents

Is it okay for my residents to shave and use deodorant?

Even though shaving cream and deodorant may inactivate CHG, we understand that residents will want to shave and use deodorant. If shaving is performed, ensure that shaving cream only contacts body area that is being shaved.

What if my resident has an incontinence episode or needs freshening up throughout the day?

CHG cloths should be used for all bathing purposes, including full-body bathing, cleaning after soiling, or any other reasons for additional cleaning such as freshening up. Do not use soap to cleanse incontinent residents because soap can inactivate CHG. First remove urine/stool with usual incontinence wipes or cloths and water. Next, clean with CHG and allow to air dry. Finally, apply CHG compatible barrier protection over the area. Repeat as often as needed throughout the day.

My resident reports that their skin feels sticky after the bath.

The sticky feeling is due to the moisturizing ingredients in the CHG cloths and it will go away as it dries. The cloths contain aloe vera.

Is it safe to use on the perineum?

Yes, CHG is safe to use on the perineum and external mucosa.

Is CHG safe to use on lines, tubes, and drains?

Yes, it is very important to clean lines, tubes, and drains in addition to the skin surrounding these devices in order to prevent infection. The 6 inches of any tube, drain, or line nearest the body should be cleaned. Non-absorbable (non-gauze) dressings should also be wiped over with the CHG cloth after the skin is cleaned.

Should gloves be worn or changed during bathing with CHG cloths?

Yes. Although it is safe to handle the CHG cloths with bare skin, gloves should be worn for bathing residents. If gloves become soiled, they should be changed.



Shared
Healthcare
Intervention to
Eliminate
Life-threatening
Dissemination of MDROs

Frequently Asked Questions Wound Care

The majority of our nurses and certified nursing assistants (CNAs) feel comfortable using chlorhexidine (CHG) cloths on superficial wounds, but some do not. How would you suggest easing their concerns?

Remind all nursing staff that CHG cloths are safe to use on superficial wounds and stage 1 & 2 decubitus ulcers. Using the buddy system, in which nursing staff who are comfortable using CHG on superficial wounds buddy up with staff who are less comfortable, can also help.

Should I be concerned about CHG having a stinging effect on wounds?

Antiseptic over-the-counter products often contain alcohol and will sting when applied to wounds. In contrast, CHG cloths do not contain alcohol and will not sting. In fact, CHG cloths contain dimethicone and aloe vera which are moisturizers and actually have a soothing effect on the superficial wound area.

Will CHG be absorbed if I put it on a wound?

There is minimal to no systemic absorption when using CHG on a superficial wound. In addition, the CHG may be particularly important to get rid of bacteria in an open wound and prevent infection.

For what types of wounds is CHG safe?

CHG can be gently applied to any superficial wound, including stage 1 and 2 decubitus ulcers, friable skin/rash, and superficial burns. We do not recommend



Shared
Healthcare
Intervention to
Eliminate
Life-threatening
Dissemination of MDROs

Frequently Asked Questions Nasal Iodophor

Iodophor and how safe is it?

Iodophor is another name for "povidone-iodine," which is an over-the-counter antiseptic that is most known for its use in cleaning scrapes, cuts, and wounds and preventing infections. It is also FDA cleared for use in the nose. Povidone-iodine is an over-the-counter antiseptic product. It has been used in healthcare for over 60 years. Iodophor has been used in thousands and thousands of patients prior to this, in ICUs, and in nursing homes as a way to prevent MRSA and other infections. Side effects from iodophor are uncommon, mild and resolve with discontinuation. They may include nasal irritation, runny nose, and sneezing. As with any product, rare but serious allergic reactions can occur.

What is the purpose of putting it in the nose?

Iodophor removes germs that commonly live in the nose, including methicillin-resistant *Staphylococcus aureus*, or MRSA. Many studies have shown that nursing home residents are much more likely to harbor MRSA than people in the community or patients in hospitals. In fact, recent data across many nursing

Decolonization Success Depends on Application

- Lack of training shown to yield no benefit
- Training pearls for CHG
 - Massage firmly
 - Avoid cotton cloths
 - Clean wounds, devices, breaks in skin
 - Check lotion, skin product compatibility
 - 4% rinse-off CHG, 2% leave-on (air dry)

Chlorhexidine Only Works If Applied Correctly: Use of a Simple Colorimetric Assay to Provide Monitoring and Feedback on Effectiveness of Chlorhexidine Application

Laura Supple, BS;¹ Monika Kumaraswami, MD;¹ Sirisha Kundrapu, MD, MS;² Venkata Sunkesula, MD, MS;² Jennifer L. Cadnum, BS;² Michelle M. Nerandzic, BS;¹ Myreen Tomas, MD;³ Curtis J. Donskey, MD^{2,3}

We used a colorimetric assay to determine the presence of chlorhexidine on skin, and we identified deficiencies in preoperative bathing and daily bathing in the intensive care unit. Both types of bathing improved with an intervention that included feedback to nursing staff. The assay provides a simple and rapid method of monitoring the performance of chlorhexidine bathing.

Infect Control Hosp Epidemiol 2015;00(0):1-3



CHG Cloth Observation Checklist

Please complete for THREE different staff per unit

Individual Giving CHG Bath

Please indicate who performed the CHG bath.

Nursing Assistant (CNA) Nurse Other: _____

Observed CHG Bathing Practices

Please check the appropriate response for each observation.

- Y N Patient received CHG cloth bathing handout
- Y N Patient told that bath is a no rinse cloth that provides protection from germs
- Y N Provided rationale to the patient for not using soap at any time while in unit
- Y N Massaged skin *firmly* with CHG cloth to ensure adequate cleansing
- Y N Cleaned face and neck well
- Y N Cleaned between fingers and toes
- Y N Cleaned between all folds in perineal and gluteal area
- Y N N/A Cleaned occlusive and semi-permeable dressings with CHG cloth
- Y N N/A Cleaned 6 inches of all tubes, central lines, and drains closest to body
- Y N N/A Used CHG on superficial wounds, rash, and stage 1 & 2 decubitus ulcers
- Y N N/A Used CHG on surgical wounds (unless primary dressing or packed)
- Y N Used all 6 cloths (more if needed)
- Y N Allowed CHG to air-dry / does not wipe off CHG
- Y N Disposed of used cloths in trash /does not flush

Query to Bathing Assistant/Nurse

1. Do you ever use soap in conjunction with a CHG bathing cloth? If so, when?

2. Do you reapply CHG after an episode of incontinence has been cleaned up?

3. Are you comfortable applying CHG to superficial wounds, including surgical wounds?

4. Are you comfortable applying CHG to lines, tubes, drains and non-gauze dressings?

5. Do you ever wipe off the CHG after bathing?

Decolonization Dos and Don'ts

DO

- Begin decolonization on admission to remove germs as soon as possible
- Use chlorhexidine (CHG) for all bathing/showering needs for all residents
- Use 2% no-rinse CHG cloths for bed baths *or* 4% rinse-off liquid CHG for showers
- Use CHG for regular bathing during resident's entire nursing home stay
- Massage CHG onto skin for best effect
- Use CHG on lines, tubes, drains, and over non-gauze dressings
- Use on superficial wounds and rashes to remove germs
- Use nasal iodophor treatment twice a day for a 5-day period every other week

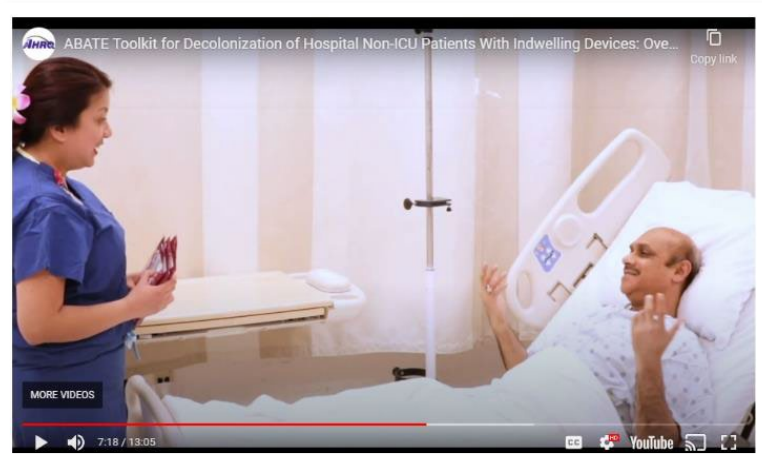
DON'T

- Do NOT get CHG into eyes or ears
- Do NOT wipe off after applying CHG cloths. Let air dry.
- Do NOT apply dressings when skin is still sticky. Wait until fully dry.
- Do NOT flush CHG cloths. Place in trash.
- Do NOT use cotton cloths for showering – it binds CHG and does not release well
- Do NOT use iodophor and/or CHG on resident if resident is allergic

REFER TO NURSING PROTOCOL FOR STEP-BY-STEP INSTRUCTIONS

Training Video for CHG Bathing

- CHG bathing and showering instructions
- Scenarios for how to encourage patients to accept bath
- Commonly missed and important protocol details (i.e., cleaning lines, tubes, drains, superficial wounds)
- Instructions for patients wishing to self-bathe



<https://www.ahrq.gov/hai/tools/abate/index.html>

A course card for "Bathing and Showering with Chlorhexidine (CHG) for CNAs". The background is a photograph of a female caregiver in blue scrubs smiling at an elderly male resident in a green shirt. The card features a "LEARNING PATH" icon and text in the top left. The main title is "Bathing and Showering with Chlorhexidine (CHG) for CNAs". Below the title is a progress indicator showing "11% Complete" with a horizontal bar. At the bottom, there is a "Continue Path" button.

LEARNING PATH

Bathing and Showering with Chlorhexidine (CHG) for CNAs

11% Complete

→ Bathing and Showering with Chlorhexidine (CHG) for CNAs

Continue Path

A course card for "Bathing and Showering with Chlorhexidine (CHG) for LVNs/LPNs/RNs". The background is the same photograph of the caregiver and resident. The card features a "LEARNING PATH" icon and text in the top left. The main title is "Bathing and Showering with Chlorhexidine (CHG) for LVNs/LPNs/RNs". At the bottom, there is a "Start Learning Path" button.

LEARNING PATH

Bathing and Showering with Chlorhexidine (CHG) for LVNs/LPNs/RNs

Start Learning Path

https://www.pathlms.com/courses?category_ids%5B%5D=1009&slug=naccho

Step 5: Process and Practice

- Select Launch Date
- Pre-Launch Facility-wide Training Days
 - CNAs
 - LVN/RNs
 - See toolkit modules and videos to be used with in-person train-the-trainer
- Pre-Launch Skin Check to avoid attributing existing conditions to CHG
- Launch
- Provide Admission Packet materials on routine decolonization (see toolkit)
- Post-Launch Feedback on Bathing Quality
 - Toolkit assessment tool (few times weekly early in campaign)
- Ongoing Training for new hires

Step 6: Outcomes

Outcome

- Odor
- Skin condition
- MDRO prevalence
- Contact precautions
- Antibiotic use
- Infections
- Hospitalizations due to infection

Time to Benefit

Days

Few weeks

1+ months

1+ months

Few months

Few months

Few months

Concise Communication

Not as simple as it seems: extensive facility and training gaps in nursing home bathing

Abstract

Standardized observation of bed baths and showers for 100 residents in 8 nursing homes revealed inadequate cleansing of body sites (88%–100% failure) and >90% process failure involving lather, firm massage, changing dirty wipes or cloths, and following clean-to-dirty sequence. Insufficient water warmth affected 86% of bathing opportunities. Bathing training and adequate resources are needed.

(Received 15 March 2023; accepted 29 April 2023)

Table 1. Body Site and Procedural Failures for Bed Baths and Showers by Whether Residents Complained of Being Cold

Variable	Failures for Bed Baths and Showers ^a	
	Resident Complained of Being Cold, No. % (95% CI)	Resident Did Not Complain of Being Cold, No. % (95% CI)
No. of observed residents	86	14
Duration of bed baths and showers, average minutes ^b	12	14
Failure to clean body sites		
Hair	77 89.5% (81.1%–95.1%)	9 64.3% (35.1%–87.2%)
Face/neck	69 80.2% (70.3%–88.0%)	8 57.1% (28.9%–82.3%)
Fingers/toes	78 90.7% (82.5%–95.9%)	11 78.6% (49.2%–95.3%)
Skin folds	64 74.4% (63.9%–83.2%)	9 64.3% (35.1%–87.2%)
Male genitals ^c	34 79.1% (75.2%–97.1%)	3 75.0% (19.4%–99.4%)
Female genitals ^d	37 80.4% (69.9%–93.4%)	7 77.8% (40.0%–97.2%)
% Failures across body sites	82.4	69.5
Failure to follow procedures for bed baths and showers		

Table 1. Body Site and Procedural Failures for Bed Baths and Showers by Whether Residents Complained of Being Cold


Variable	Failures for Bed Baths and Showers ^a	
	Resident Complained of Being Cold, No. % (95% CI)	Resident Did Not Complain of Being Cold, No. % (95% CI)
Replace dirty wipes/cloths	69 80.2% (70.3%–88.0%)	6 42.9% (17.7%–71.1%)
Lather sufficiently	63 73.3% (62.6%–82.2%)	6 42.9% (17.7%–71.1%)
Follow clean to dirty sequence	76 88.3% (79.7%–94.3%)	8 57.1% (28.9%–82.3%)
Massage skin firmly	67 77.9% (67.7%–86.1%)	6 42.9% (17.7%–71.1%)
% Failures across bed bath and shower procedures	79.9	46.5
Failures in shower-only procedures		
Fully towel-dried skin ^e	37 82.2% (68.0%–92.0%)	2 40.0% (5.3%–85.3%)
Wrap/unwrap devices ^f	5 83.3% (35.9%–99.6%)	1 100.0% (2.5%–100%)

Complexities


- **Teamwork**
 - RN vs CNA activities
 - CNA: observe and report
 - RN: assess and respond
- **Turnover**
- **Impediments to speaking up**
- **Validation and appreciation**
- **Feedback**




Bathing and Showering with Chlorhexidine (CHG) for CNAs

 Course • 7 Lessons


Bathing and Showering with Chlorhexidine (CHG) for LPNs/LVNs/RNs

 Course • 6 Lessons

Bathing and Showering for CNAs

 Course • 7 Lessons

Bathing and Showering for LPNs/LVNs/RNs

 Course • 6 Lessons

Bathing and Showering with Chlorhexidine (CHG) for CNAs

0% COMPLETE

- Introduction and Why CHG Bathing is Important
- Common Barriers and Teamwork
- Types of Baths
- Giving Bed Baths and Showers
- Special Situations
- Review
- Quiz

INTRODUCTION



SCENARIO 1

Mary is a resident at your nursing home, she has a red rash on her belly that the doctor is treating and some scrapes on her forearms from scratching.

As you give Mary a bed bath using chlorhexidine (CHG), how will you clean her belly and forearms?

You do not need to answer the question but think about how you would respond to this scenario.

CONTINUE

Bathing and Showering with Chlorhexidine (CHG) for CNAs

0% COMPLETE

Introduction and Why CHG Bathing is Important

Common Barriers and Teamwork

Types of Baths

Giving Bed Baths and Showers

Special Situations

Review

Quiz

WHY IS CHG BATHING IMPORTANT

Bathing is important to protect **everyone** in the nursing home from germs: residents, colleagues, and yourself.

When residents are bathed correctly:

- 1 Bathing **prevents the spread** of germs between residents and staff.
- 2 Germs that can cause infection are **removed from the resident's body**.
- 3 It helps prevent spreading germs to **others**.
- 4 Residents feel **clean and comfortable**.

Bathing and Showering with Chlorhexidine (CHG) for CNAs

0% COMPLETE

- Introduction and Why CHG Bathing is Important
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CHG continues to kill germs on the skin for 24 hours.

- 2 CHG has been proven to **reduce antibiotic-resistant bacteria**, bloodstream infections, and hospitalization from all kinds of infections.
- 3 CHG is **less drying** to the skin than soap and water

i Watch the following video on the benefits of bathing with CHG.



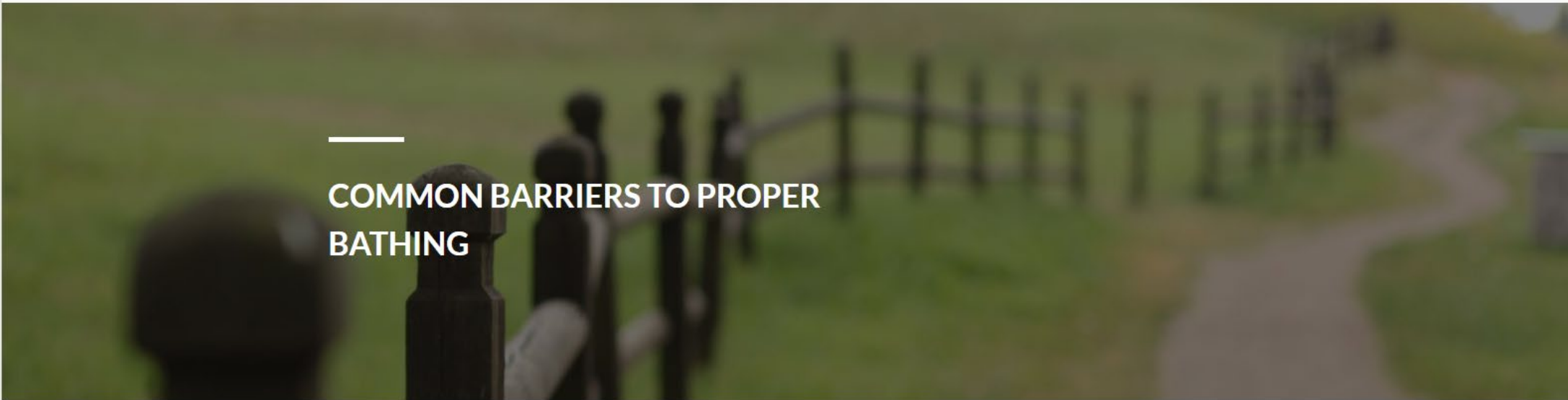
Bathing and Showering with Chlorhexidine (CHG) for CNAs

14% COMPLETE

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Lesson 2 of 7

Common Barriers and Teamwork



COMMON BARRIERS TO PROPER BATHING

1

Proper bathing is key to keeping everyone in the nursing home healthy. Here are situations that can be a barrier to bathing a resident properly.

Are you uncomfortable cleaning wounds and devices? Do not worry, it is one of the most common barriers to proper bathing.

Wounds and Devices



Wounds and devices are where germs can get in and cause infection.

- It is **common** to feel uncomfortable with wounds and devices.
- They **need to be cleaned**, especially if wound or device care is not performed immediately after a shower.
- It is **important that you know how** to clean devices and superficial wounds, otherwise, those areas may not be cleaned.
- **Do not be afraid** to ask a LPN, LVN, RN, or supervisor to show you how to clean around and over wounds and devices so that you **become comfortable** with this **important part of bathing**.

Here are some ways you can ask a LPN, LVN, RN, or supervisor for help.

- I am not sure if this looks normal. Can you take a look at this?
- Can you show me the proper way to clean around a wound or device? I would like to learn so I know how to handle similar situations in the future.



Bathing and Showering with Chlorhexidine (CHG) for CNAs

14% COMPLETE

☰ Introduction and Why CHG Bathing is Important

☰ Common Barriers and Teamwork

☰ Types of Baths

☰ Giving Bed Baths and Showers

☰ Special Situations

☰ Review

🔍 Quiz

Teamwork between you and the LPN/LVN/RNs is critical for the care of the residents. Keeping residents clean and safe from germs and infections is a **shared responsibility**. Clear communication, accountability, and a common goal is key to establishing an effective bathing culture within your nursing home.

- You play a **very important role** to keep residents safe from germs and infections.
- You do this by bathing residents well, keeping them clean, and **knowing when to ask for support**.
- You are the **first line of defense**. It is likely that you are the first to notice and care for common skin problems during bathing.
- If you notice skin problems that are worrisome or are unsure of how to handle, **ask a LPN/LVN/RN to evaluate** the resident.

Bathing and Showering with Chlorhexidine (CHG) for CNAs

43% COMPLETE

- Introduction and Why CHG Bathing is Important
- Common Barriers and Teamwork
- Types of Baths
- Giving Bed Baths and Showers
- Special Situations
- Review
- Quiz



GIVING A CHG BED BATH

1

What You Will Need for a CHG Bed Bath



2% no-rinse CHG made from 4% CHG in measuring cup (1 cup volume)



Bath basin



Six (6) disposable non-cotton cloths (minimum)



Gown and gloves

Bathing and Showering with Chlorhexidine (CHG) for CNAs

43% COMPLETE

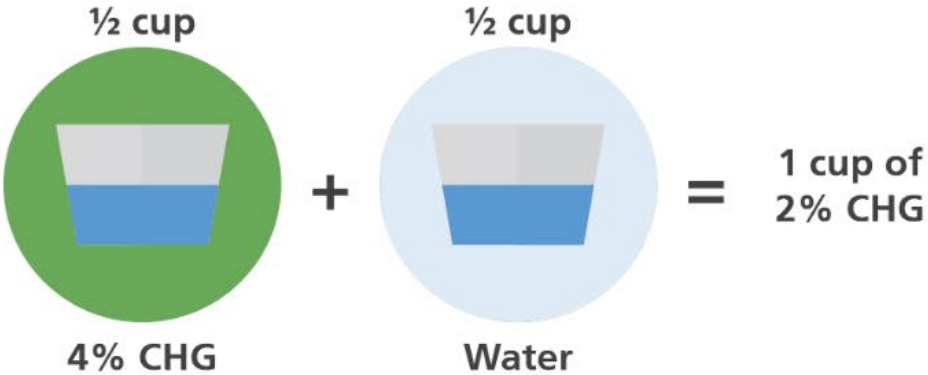
- Introduction and Why CHG Bathing is Important
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- Special Situations
- Review
- Quiz



Mix 4% CHG and Water

Before you begin mixing the solution, be sure the resident is ready for the bed bath. Otherwise, your solution may become cold.

- Pour 1/2 cup (4 oz) of 4% liquid CHG into the basin
- Add 1/2 cup (4 oz) of bath temperature water
- NOTE: It is important that you mix an equal amount of liquid CHG and water to get 2% CHG.



DO NOT ADD EXTRA WATER

Bathing and Showering with Chlorhexidine (CHG) for CNAs

43% COMPLETE

- Introduction and Why CHG Bathing is Important
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- Quiz

- Clean **six (6) inches** of all tubes, lines, and drains closest to the body using a **clean 2% CHG cloth**.
- Use **additional wipes** for larger residents.




- Let the solution **air dry** - **do not rinse** or wipe off excess solution
- **Throw away** used cloths - **do not flush** disposable cloths down the toilet

Bathing and Showering with Chlorhexidine (CHG) for CNAs

43% COMPLETE

- Introduction and Why CHG Bathing is Important
- Common Barriers and Teamwork
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- Review
- Quiz

 Drag each key point to the correct type of bath.

Apply 2% no-rinse CHG to the body using a firm massage

Do not wipe or rinse off CHG

Massage CHG on body for at least 2 minutes, washing the entire body twice

2% CHG continues to kill germs 24 hours

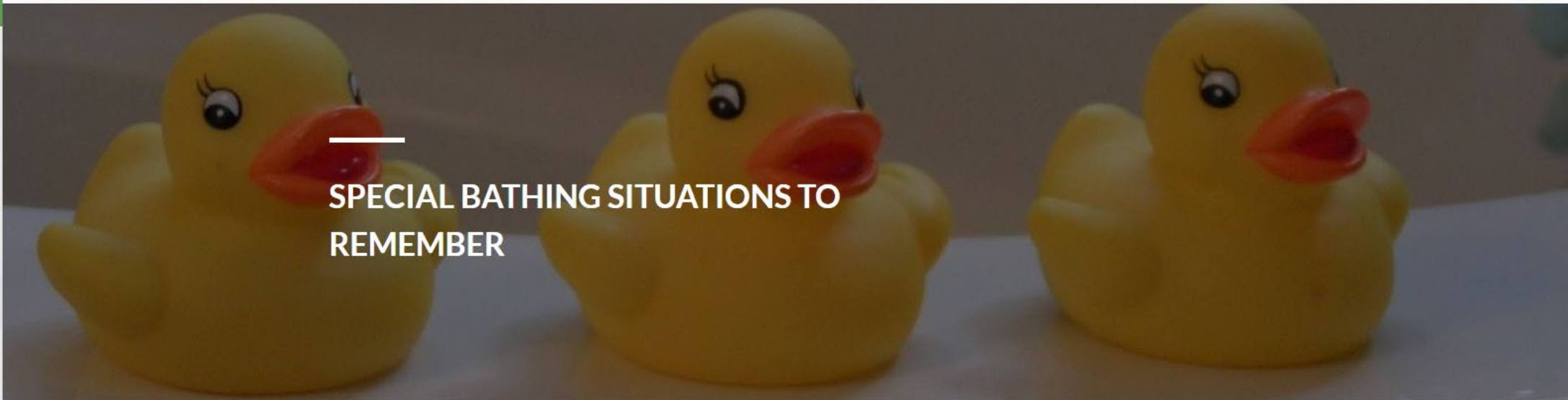
Use 4% rinse-off CHG

For Bed Baths

For Showers

- ☰ Introduction and Why CHG Bathing is Important
- ☰ Common Barriers and Teamwork
- ☰ Types of Baths
- ☰ Giving Bed Baths and Showers
- ☰ Special Situations
- ☰ Review
- 🔍 Quiz

Special Situations



WASH DIRT

WASH DIRT is an abbreviation to help you remember the eight (8) special situations to be aware of when bathing patients.



Click on each special situation to learn how to handle them.

Bathing and Showering with Chlorhexidine (CHG) for CNAs

57% COMPLETE

≡ Introduction and Why CHG Bathing is Important

≡ Common Barriers and Teamwork

≡ Types of Baths

≡ Giving Bed Baths and Showers

≡ Special Situations

≡ Review

? Quiz

W - Wounds



A - All Skin Folds



S - Skin Breaks and Rashes



H - Helping Hand



D - Dressings and Devices



I - Incontinence



R - Refusals



T - Teamwork



Bathing and Showering with Chlorhexidine (CHG) for CNAs

57% COMPLETE

- Introduction and Why CHG Bathing is Important
- Common Barriers and Teamwork
- Types of Baths
- Giving Bed Baths and Showers
- Special Situations
- Review
- Quiz

R - Refusals

If a resident does not want a bath or shower:

- Make sure you understand why. The resident is unlikely to want a bath until these things are made better.
 - Are they tired?
 - Hungry?
 - In pain?
 - Cold?
- Offer a different time after problems are corrected.

The way you ask a resident makes a difference.

- If you ask, "Do you want a bath?", they may say no.
- If you say, "Let's go take a bath!", they may be willing.
- Remind them that bathing keeps germs away.
- Try, try again. Your enthusiasm is important to protect them.

If they continue to refuse, ask a LPN/LVN/RN to speak with them to encourage bathing.





Bathing and Showering with Chlorhexidine (CHG) for CNAs

71% COMPLETE

Introduction and Why CHG Bathing is Important

Common Barriers and Teamwork

Types of Baths

Giving Bed Baths and Showers

Special Situations

Review

Quiz

REMEMBER



Click on each checkbox after you read each statement.

If everyone in a nursing home is bathed well, **the whole nursing home is protected from infection.**

CHG works better than soap and water to remove germs, including antibiotic-resistant bacteria. CHG prevents infection and hospitalizations.

You are the first line of defense. You are likely to be the first to notice things and alert a nurse if help is needed.

Use **2% no-rinse** CHG solution for **bed baths**. Bathe each area in the correct order. Always wipe from clean-to-dirty. Wipe devices with 2% CHG cloths.

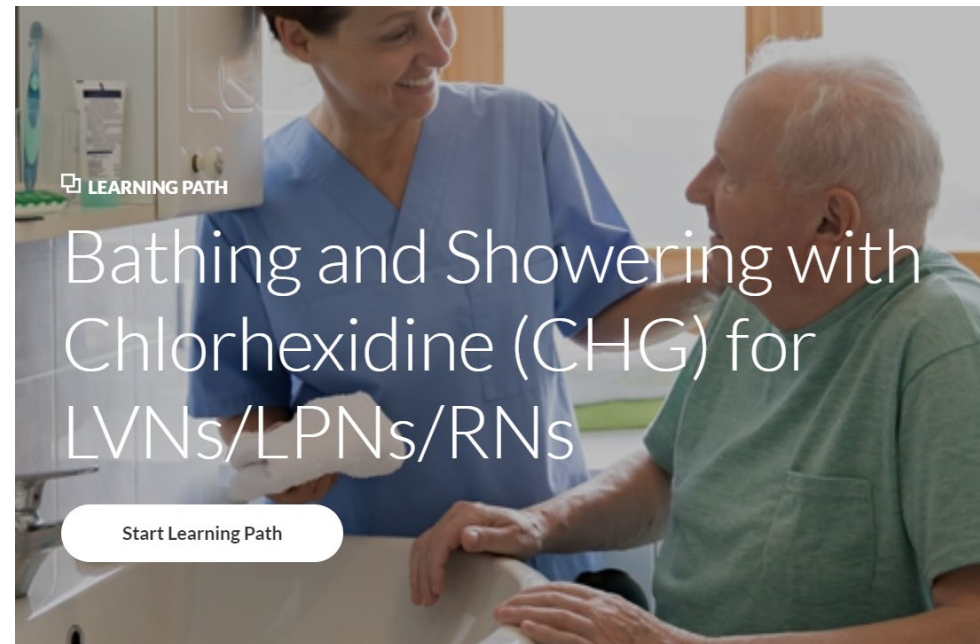
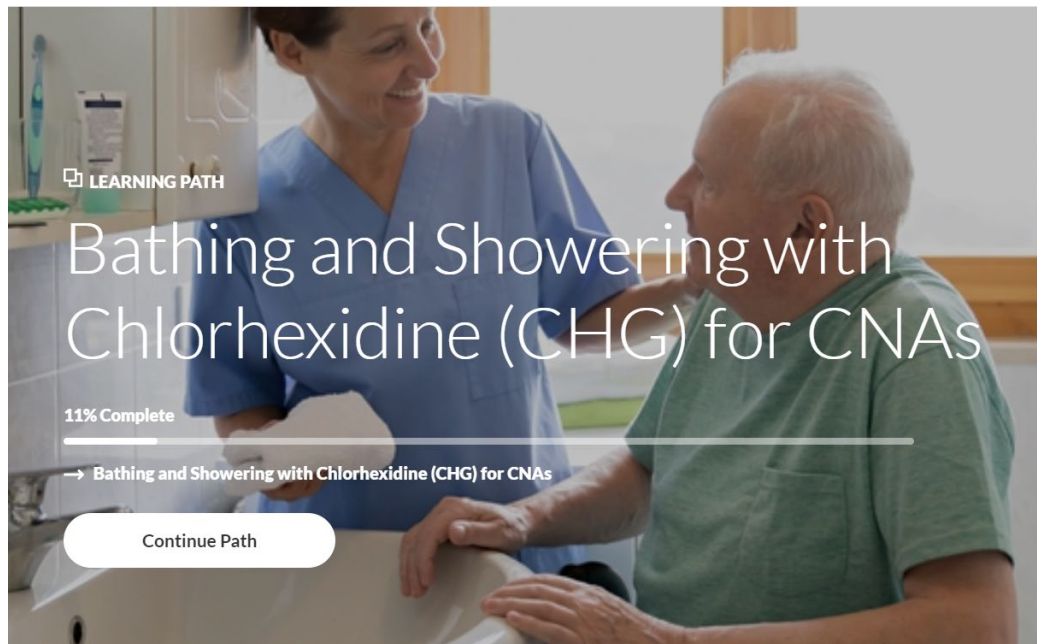
Use **4% rinse-off** CHG solution for **showers**. Wrap all devices. Massage CHG on all body parts for at least two (2) minutes including in between skin folds. Wipe devices with 2% no-rinse CHG cloths.

Remember **special situations (WASH DIRT)**, making sure to properly clean breaks in the skin, skin folds, superficial wounds, devices, dressings, etc..

When **you and LPNs/LVNs/RNs work together**, you can protect residents from infection and hospitalization.



Search “Bathing and Showering” for CHG and non-CHG modules



<https://www.pathlms.com/naccho/courses/>
Free registration gives free access



Bathing and Showering with Chlorhexidine (CHG) for CNAs

START COURSE



<https://www.cahf.org/Education-Events/QCHF>
Free registration for free access

Summary: Decolonization

- Topical decolonization of skin and nose repeatedly shows benefit:
 - ✓ Reduces MDROs, Gram+ and Gram-
 - ✓ Reduces bloodstream infections in hospitals
 - ✓ Reduces hospitalizations from serious infections in nursing homes, and reduces related costs and deaths
- Universal application most effective in high-risk populations
- Quality of training and application matters
- Free, online tools can help with implementation

