



Decolonization of Non-ICU Patients With Devices

Section 8 – Toolkit Prelaunch Activities

We recommend that you follow the prelaunch checklist below (Table 8-1) for successful implementation. As is the case with many infection prevention programs, it will take time to achieve culture change. Expect that it will take 3–6 months to achieve solid adoption after training, feedback, and encouragement. Some sites may find it helpful to review the toolkit and make a comparison table between their current practices and toolkit recommendations that need to be changed. Such a comparison table can be used to make the prelaunch checklist specific to your institution.

Table 8-1. Prelaunch Checklist

Status	Item
<input type="checkbox"/>	Identify physician and nursing champions
<input type="checkbox"/>	Set launch date
<input type="checkbox"/>	Obtain required committee approvals
<input type="checkbox"/>	Identify and implement process for targeting patients with devices
<input type="checkbox"/>	Work with supply chain and pharmacy to purchase and stock decolonization products
<input type="checkbox"/>	Ensure chlorhexidine gluconate (CHG) compatibility with routine skin products
<input type="checkbox"/>	Provide staff education and training
<input type="checkbox"/>	Print staff and patient handouts and skills assessment forms
<input type="checkbox"/>	Develop a feedback plan to assure adherence and reinforce training

✓ Identifying Physician and Nursing Champions

For each non-critical-care unit that will adopt this strategy, it is important to identify a nursing champion who is well respected by their peers and can speak in strong support of the intervention. Nursing champions differ from key stakeholders in that they are personnel that routinely provide oversight within the non-intensive care units (ICUs) such as the nurse manager/director. Nursing champions should be able to:

- Promote the intervention and serve as a peer leader for this intervention

- Speak to the rationale of targeted decolonization for patients with medical devices in non-ICUs during rounds and nursing huddles

- Support collection of baseline and followup data on methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococcus (VRE) burden and bloodstream infections among patients with medical devices in that unit

- Provide adherence data on use of decolonizing products and bathing checks



Encourage high compliance among unit staff

A physician champion can help support the targeted decolonization protocol by galvanizing other physicians and garnering physician support for the protocol. This support is particularly important if you use a mupirocin-based regimen that requires a physician order.

✓ **Set Launch Date**

A launch date should be set that accounts for the following:

Timing of committee approvals

Timing required for product stocking and compatibility assessment (see “Stock Product and Address Compatibility Issues” below)

Timeline required for educational training, including possible computer-based training modules, presentations to nurse manager forums, nursing skills day or quality fairs, nursing staff meetings, medical staff meetings, and medicine grand rounds or other non-ICU physician forums

Sequence of timing for expansion if sequential rollout to multiple non-ICUs is planned

Other competing campaigns and holidays

✓ **Obtain Required Committee Approvals**

Most hospitals will implement targeted decolonization as a standardized nursing protocol, often coupled with the use of order sets within the electronic medical record.

These processes will need to undergo usual hospital approval by relevant committees, which may include infection prevention, nursing governance, pharmacy & therapeutics, and the medical executive committees. Determination of committees from which to seek approval is the responsibility of each hospital. Scheduling time on the agenda for these committees will be essential to the planning and launch of this prevention strategy.

✓ **Identify and Implement Process for Targeting Patients With Devices**

Discuss with nursing and medical leadership, information technology leaders, pharmacy, and supply chain how best to implement targeted decolonization for non-ICU adult patients with new or existing medical devices (e.g., central lines, midlines, or lumbar drains).

Select the best process for your hospital. Options may include:

Manual process – Round on non-critical care units daily to identify adult patients with new or existing medical devices (e.g., central lines, midlines, and lumbar drains). Nurse activates standardized nursing protocol to give these patients 2% no-rinse CHG bed baths or 4% rinse-off showers on a daily basis and contacts treating physician to order nasal decolonization if patient is considered to harbor MRSA based on the criteria below.

Electronic process – Adult patients with the medical devices of interest are automatically identified based on nursing device documentation in the electronic medical record (EMR), and CHG decolonization is initiated using an order set (Table 8-2) that activates the standardized nursing protocol for CHG bathing. In addition, the EMR identifies an additional subset of patients with targeted medical devices who are also known to be MRSA carriers and activates a nasal decolonization order set for those patients.

Mixed electronic/manual process – Adult patients with medical devices of interest are automatically identified based on nursing documentation in the EMR, and a report is generated. The report may also identify the subset of patients with those medical devices who are known to be MRSA carriers. A nurse champion uses the report on a daily basis to activate a standardized nursing protocol to bathe these patients with CHG and contacts the treating physician to order nasal decolonization if the patient is known to harbor MRSA.

- **Options for identifying MRSA carriers include:**
 - Past history of MRSA flagged in EMR system
 - MRSA-positive culture or history documented on transfer
 - MRSA-positive screening test (if performed) or clinical culture positive
 - Patient gives verbal history of being MRSA positive
 - Remember, we are not asking you to change your testing/screening processes for MRSA. Use your current processes for identifying MRSA-positive clinical cultures, screening cultures, and history of MRSA to target those with devices. Recognize that there may be patients with a history of MRSA, but with recent negative surveillance cultures who should be included.

Table 8-2. Example of Standing Order Set

Order Set Name	Device Decolonization
Protocol Details	Daily CHG bath with 2% no-rinse impregnated CHG cloths for bed bathing or 4% liquid rinse-off CHG for showering for non-ICU adult patients with new or existing medical devices
Medication	<p>Mupirocin 2% nasal ointment</p> <ul style="list-style-type: none"> ● Activate order for patients with medical devices who are also known to be MRSA+ (MRSA+ flag present, MRSA+ screening test or clinical culture, documented MRSA+ history on transfer, patient gives history of being MRSA+) ● Mupirocin 2% nasal ointment, 0.5 gram applied to each nostril 2 times per day for 5 days, for a total of 10 doses. Follow targeted decolonization protocol for missed doses.

Note: MRSA+ = MRSA positive

✓ **Work With Supply Chain and Pharmacy To Purchase and Stock Decolonization Products**

Work with your supply chain and usual vendors to purchase and stock decolonization products ahead of the targeted decolonization launch date (Tables 8-3 and 8-4). CHG bathing and showering formulations do not need a prescription. Mupirocin requires an M.D. order/prescription and will need to be adequately stocked through pharmacy based upon anticipated usage.

Table 8-3. Decolonization Products

CHG Cloths for Bed Bathing	<ul style="list-style-type: none"> • 2% CHG impregnated cloths for no-rinse bed bathing
CHG for Showering	<ul style="list-style-type: none"> • 4% CHG liquid (4 oz bottle) with mesh sponge for single patient use for showering
Mupirocin	<ul style="list-style-type: none"> • 2% nasal mupirocin ointment, twice daily for 5 days • Dosing options may include: <ul style="list-style-type: none"> Option 1: Single-patient multidose 22 g tube Option 2: Pharmacy dispensed unit dose bubble pack

Table 8-4. Alternative Products

CHG Liquid for Bed Bathing	<ul style="list-style-type: none"> • 4% CHG liquid (4 oz bottles) diluted once with 4 oz of water to create 2% CHG leave-on liquid for bed bathing with disposable cloths • Use non-cotton disposable cloths for application
Iodophor Nasal Decolonization	<ul style="list-style-type: none"> • 10% povidone-iodine (iodophor) swabsticks • One per nostril twice daily for 5 days

✓ **Ensure CHG Compatibility for Routine Skin Products**

Many topical skin products (e.g., lotions, barrier creams/wipes, perineal cleansers, baby wipes, shaving creams, deodorants) can inactivate CHG and prevent it from killing germs. Prior to launching targeted decolonization, ensure that all stocked prophylactic topical skin products are CHG compatible. Topical prescription products prescribed for treatment do not need to be checked as they are required for patient care. Since 80–90 percent of U.S. hospitals have implemented decolonization in the ICU setting, in general, most hospitals have a limited set of CHG-compatible prophylactic topical skin products stocked. Check with your supply chain and ICUs first. However, if you are not certain, check both ICU and non-ICU products.

To check CHG compatibility for prophylactic skin products, contact the manufacturers of lotions and skin products that are stocked in the hospital. The most reliable source of confirmation will be the manufacturer. We recommend that you ask the following questions and request written documentation of compatibility:

1. Has the product been tested for CHG compatibility?
2. Can you provide the data confirming CHG compatibility?

If the product has not been tested for CHG compatibility or data are not available to confirm compatibility, look for an alternative product that is confirmed by the manufacturer to be CHG compatible. Most healthcare skin products have been tested by the manufacturer due to the commonplace use of CHG leading to large numbers of healthcare providers seeking confirmation of compatibility.

- **Medicated or wound care skin products**

If your patient is prescribed a treatment regimen for the skin, used as medically directed and continue to apply CHG for routine bathing. We do not recommend that CHG compatibility be checked for prescribed medications because they are needed for medical care. Such products can include steroid creams, antifungal creams, and burn or wound creams for treatment.

- **Products known to be CHG incompatible**

The following products commonly contain ingredients that are known to be CHG incompatible and should be used sparingly:

- Soaps – **DO NOT USE**. CHG bathing cloths or CHG liquid soap replace soap and water.
- Deodorant
- Shaving cream
- Shampoos – use no-rinse shampoo caps to avoid contact with face and body skin. All shampoos contain ingredients that will inactivate CHG.
- In the shower, we recommend CHG be used for shampooing. If alternative shampoo is used in the shower, keep off as much of the body as possible when rinsing.

- ✓ **Provide Staff Education and Training**

Prior to launch of targeted decolonization, train frontline staff (nurses, certified nursing assistants, etc.) using the educational materials provided in this toolkit.

Computer-based training module – This PowerPoint presentation can be incorporated into your computer-based training system for assignment to designated frontline staff. It can also be used for dedicated training during nursing skills' days or other educational forums. A brief post training test is included.

Videos

- CHG bathing videos – includes a demonstration of how to perform a CHG bath, with staff-patient interaction scenarios describing how to explain to patients what the CHG bath is and how to encourage patients to accept the bath.
- Device-cleaning videos – separate videos include detailed demonstrations of how to use CHG to clean central/midline catheters and lumbar drains and their dressings.
- Videos can be incorporated into your hospital’s computer-based training system for assigned viewing by designated staff. Alternatively, videos can be presented during staff huddles.

Just-in-time training – this document can be used for new, registry, or float staff in conjunction with staff one-page instructional handouts. It is recommended copies be placed at nursing stations to be available for frontline staff that require day-of training.

Huddle documents – brief key reminders to be shared with frontline staff during huddles covering various protocol topics. Examples include:

- Why Is Nasal Decolonization Important?
- How to Address Bathing/Showering Refusals
- CHG and Device Care
- CHG and Wound Care

Options for frequency of huddle document messaging include:

- Covering one key topic for an entire week (best option for critical reminders to reach all staff in all shifts)
- Tailoring the huddle topic to the issues present on that shift (best option when issues differ between shifts and shift champions can tailor huddle messages to address existing issues)

✓ **Print Staff and Patient Handouts and Skills Assessment Forms**

Staff instructional handouts – one-page handouts with instructions for performing a CHG bed bath, providing shower instructions, and applying nasal decolonization. Copies should be placed at nursing stations to be available for all frontline staff.

Patient instructional handouts – one-page handouts with instructions on why and how CHG is used for bed bathing, and on how to apply CHG in the shower, are provided. Copies should be placed at nursing stations to be available for all frontline staff to give to patients. These handouts will save nursing time by answering many questions that patients may have about decolonization.

Skills assessment forms – one-page handouts for staff to perform peer-to-peer assessment or for nursing leaders to assess competency of nursing staff in CHG bed

bathing. Also includes one-page handouts for patients to complete a small set of questions about their knowledge and experience with CHG bathing or showering.

✓ **Develop a Feedback Plan To Assure Adherence and Reinforce Training**

As with any campaign, it is important to provide regular assessments of adherence to intervention protocols. In this toolkit, we provide the “Bathing Skills Assessment” tool for observing bathing practice and asking key questions to ensure understanding of the protocol. For example, a small number of baths per unit should be observed on a weekly basis post-implementation, with reduction over time to monthly maintenance assessments as adherence is assured. This could be done by a non-ICU nurse manager, a facility nurse educator, or a designee. The frequency of sample observations (e.g., weekly, monthly) should be tailored to the results of these assessments (e.g., more frequent observations if protocols are not fully adhered to or if understanding appears limited; less frequent observations where protocol compliance is higher).

Nurse training can be reinforced with the following, which are provided in this toolkit:

- Instructional Handouts
- Huddle Documents
- Do and Don't Fact Sheet
- Protocol Training
- Adherence and Skills Assessments
- Frequently Asked Questions

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