Decolonization of Non-ICU Patients With Devices

Section 14-3 – Addressing Questions Asked by Staff: Nasal Iodophor for MRSA Carriers With Devices

What is iodophor and how safe is it?

Iodophor is another name for "povidone-iodine," which is an over-the-counter antiseptic most known for its use in cleaning scrapes, cuts, and wounds to prevent infections. Povidone-iodine has been safely used in healthcare for over 60 years. It is also cleared by the Food and Drug Administration for use in the nose. Nasal iodophor has been used in thousands of patients prior to surgery, in intensive care units (ICUs), and in nursing homes as a way to prevent methicillin-resistant *Staphylococcus aureus* (MRSA) and methicillin-sensitive *Staphylococcus aureus* infection (MSSA). Side effects from iodophor are uncommon and mild, and they resolve with discontinuation. They may include nasal irritation, runny nose, and sneezing.

What is the purpose of putting iodophor in the nose?

Iodophor removes germs that commonly live in the nose, including MRSA, which is known to cause thousands of invasive infections in the United States annually. Many recent studies have shown the effectiveness of decolonization in reducing risk of infections due to MRSA and other multidrug-resistant organisms in hospitalized patients. Because having MRSA in the nose is a known risk factor for later infection, your hospital has decided to adopt the use of iodophor to prevent transmission and infection in your patients who have medical devices and are known to be MRSA carriers by history, screening test (if performed), or clinical culture, per your hospital's usual MRSA screening/testing guidelines.

Is there an advantage of iodophor over mupirocin?

Hospitals have a choice about which nasal decolonization product to use. Your hospital leadership has chosen to use iodophor. A current clinical trial (the Mupirocin-Iodophor Swap Out Trial) is directly comparing the effectiveness of iodophor and mupirocin on S. aureus in the context of CHG bathing in the ICU setting (https://clinicaltrials.gov/ct2/show/NCT03140423). While we await the results of that trial (anticipated by late 2021), considerations for selecting one versus the other include local evidence for mupirocin resistance, nursing preference for the application method of one versus the other, local cost estimates, and physician preference.

What will be the process for providing iodophor?

Check with your local champion and your approved iodophor protocol.

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Is it OK to provide iodophor if my patient is not alert?

Iodophor will be provided at your hospital either as a standing nursing protocol for an over-the-counter antiseptic or as an order set with physician signature. Similar to other standing nursing protocols or order sets, the standard of care is to provide this type of care unless a patient refuses. Patients who are unable to refuse will be provided nasal iodophor as the facility's infection prevention standard of care for non-ICU patients with devices.

What if the patient wants to blow their nose after application?

Patients should be told to blow their nose before the application to help clear the nasal area. For best effects, they should be encouraged not to blow their nose immediately after application.

Some patients leave the hospital for a short time and return in less than 24 hours. Does the 5-day nasal decolonization regimen pick up where they left off (e.g., day 3) or start over at day 1?

If a MRSA carrier still has a medical device at the time of readmission, the nasal protocol begins anew, regardless of the duration of absence.

If a patient is transferred from an adult ICU performing decolonization and has fully or partially completed the iodophor decolonization protocol, does the iodophor decolonization start again?

Yes. If the patient has a medical device and is known MRSA carrier by history, screening test, or clinical culture, they should receive a new 5-day course when they arrive on a general non-ICU floor, even if they already received a partial or complete 5-day course of nasal decolonization in the ICU.

What if the patient transfers from another non-ICU unit? Does iodophor continue or start over for 5 days?

For most hospitals, it is not possible to track activities from a prior unit. For pragmatic reasons in the clinical trials, protocols were unit-specific. If a patient has a medical device and is a known MRSA carrier, then a new 5-day course of nasal iodophor decolonization should be given when the patient arrives on a non-ICU floor. We recommend using protocols that do not expect staff to keep track of what was previously received in another unit or during a prior hospitalization.

However, if your hospital has the capability (electronic or otherwise) to track the duration of decolonization doses to ensure that a total of 5 days of twice daily nasal decolonization is given to patients with devices who are MRSA carriers on non-ICU floors, then follow your hospital's recommended approach.

How do I handle missed doses of iodophor?

Check the approved iodophor protocol, which has detailed instructions on missed doses. In general, if one dose is missed, resume iodophor use as soon as possible on the original schedule. Do not double up doses. If more than two doses of iodophor are missed, the protocol should be restarted and a new count for 5 days of therapy should begin.

What if my patient has been prescribed other nasal medications?

Some nasal products may prevent iodophor from working against MRSA. If the patient's doctor has prescribed or recommended other nasal medicines, the patient should continue to use them as prescribed. If possible, separate the provision of those medications from nasal iodophor application by several hours.

What if my patient develops a reaction?

Any potential issues related to nasal iodophor should brought to the attention of the treating nurse and physician, who will determine all necessary actions related to discontinuing the product and ordering any medications to address the reaction.

If my patient refused the last iodophor dose, should I offer it again?

This protective regimen should be encouraged among patients with devices. For example, if a patient refused their blood pressure medication, staff would try to encourage the patient to take it at a later time. Similarly, if a patient refuses a protective bath, then staff should try to encourage a bath at a later time. Staff need to assess whether the patient is refusing at this time (e.g., because of being tired, in pain or irritable), or whether the patient is refusing all further doses. Staff should also determine whether the patient understands the reasons for and the value of the iodophor (i.e., to prevent infection due to MRSA and other bacteria). Most patients who understand that the product protects them from infection will agree to the nasal decolonization. Review the nursing protocols for details on escalation pathways for addressing patient refusals.

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