Methicillin-Resistant *Staphylococcus aureus* (MRSA) De-isolation Procedure

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Why was the MRSA de-isolation policy updated?1

- The Infection Prevention and Control Department (IPC) recognizes the burden that isolation places on patients and staff.2,3,4
- The former de-isolation procedure required multiple negative swabs for contact isolation to be removed from a patient’s chart. Obtaining multiple swabs and follow-up on culture results was difficult.
- The new policy has simplified the process to assist health care providers in:
  - Confirming infection and/or colonization of MRSA
  - Discontinuing isolation precautions when MRSA is no longer present
- The new policy will primarily be used by inpatient units and the Emergency Department.
- The ambulatory units and perioperative departments should also be aware, as they can educate patients regarding the de-isolation procedure.
The new MRSA de-isolation policy requires one set of negative screening cultures from the following anatomical locations:

- Nares
- Perineum
- Wound, if present
Why the perineum?

- Obtaining cultures from both the nares and the perineum increases the chances of correctly identifying which patients have MRSA.\(^5\)
  - In other words, a person may have a negative culture from the nose and a positive culture from the perineum. If only a nasal culture were taken, the person would get a false-negative result. Isolation would be removed when they are in fact MRSA positive.

- Studies have shown cultures from both nose and perineum detect 93% of MRSA positive patients, which is significantly higher than cultures from other anatomical areas.\(^5\)

- When explaining this to the patients, you can say:
  - “We want to be sure we get an accurate result for your safety and others. Taking a swab from the nose, the perineum and your wound will give us the best chance. If all tests are negative, we can take you off isolation precautions”.
Your patient is on MRSA isolation precautions. What should the RN do?

Ask: When was the last lab-confirmed MRSA positive culture?

- If last positive culture was less than 6 months ago, patient is not eligible for de-isolation.

- If last positive culture was within 6-12 months, keep patient in contact isolation precautions and perform nasal, perineal and wound (if present) screening cultures (instructions to follow).

- If last positive culture was greater than 1 year ago: is the patient HIGH risk?
  - If the patient is HIGH risk → Keep patient in contact isolation and perform nasal, perineal, and wound (if present) screening cultures (instructions to follow).
  - If the patient is NOT HIGH risk → Discontinue isolation precautions and call Infection Control (4-6694) to have alert removed from patient’s chart.
What makes a patient **high risk** for MRSA?

- Chronic indwelling device: tracheostomy, peg tube, foley, central venous catheter, etc.
- Open wound
- Hemodialysis
- Long term care or nursing home resident
- Hospitalized within past 6 months
- Current IV drug user
- Treated with antibiotics within past 48 hours
- Has a household member with MRSA infection within past 6 months
What happens after the culture results are complete?

- If ANY culture result is positive for MRSA, keep patient in contact isolation. No further action needed at this time.

- If ALL culture results are negative (for each culture site):
  - Discontinue contact isolation precautions
  - Call Infection Control (4-6694) to remove isolation alert on patient’s chart

Note: While you may not be caring for the patient when the results are complete, the intention is for the next healthcare worker (RN or LIP) to report the results. Infection Control relies on healthcare workers reporting of *negative* results to remove isolation alerts.
What if information regarding MRSA infection is verbal only?

Continue Contact Precautions & call Infection Control (4-6694) to obtain lab results from other facility.

- If lab results are obtained, refer to previous instructions based on date of last MRSA culture.

- If lab results are unavailable, assume patient is MRSA positive.
  - Keep in Contact Isolation Precautions
  - Perform nasal, perineal and wound (if present) screening cultures.

DE-ISOLATION ALGORITHM SUMMARIZES INSTRUCTIONS
Algorithm for De-isolation Procedure

*High Risk Criteria for MRSA*
- Chronic indwelling device: tracheostomy, peg tube, foley, central venous catheter, etc.
- Open wound
- Hemodialysis
- LTC facility or nursing home resident
- Hospitalized within past 6 months
- Current IV drug abuser
- Treated with antibiotics within past 48 hours
- Household member w/MRSA within past 6 months

Note: If last MRSA positive culture was less than 6 months ago: patient is not eligible for de-isolation

Infection Prevention and Control Department
November 2012
How do I order the cultures in Epic?

- Get order from LIP to perform MRSA screening cultures.
- Go to Order Entry in Epic: Type “isolation”. You will see these choices:
  - Choose the MRSA de-isolation order based on last MRSA culture
    - If last positive MRSA culture is greater than 1 year ago AND NOT HIGH risk:
      - Get LIP order to discontinue contact isolation precautions and call IPC to remove alert on patient’s chart.
How do I order the cultures in Epic? (cont.)

- If last positive MRSA culture was greater than 1 year ago AND the patient is HIGH risk:
  - Continue contact isolation precautions. Get LIP order to perform nasal, perineal and wound (if present) screening swabs. Selecting the order will print the order labels to affix to culture tube.

- If last positive MRSA culture was within 6-12 months ago:
  - Continue contact isolation precautions. Get LIP order to perform nasal, perineal and wound (if present) screening swabs. Choosing the order will print order labels to affix to culture tube.
How do I obtain the specimen?

- Explain procedure and rationale for the screening swabs to the patient.
- Collection swabs: Use 2-3 sterile swab kits with white cap "Aerobic, Anaerobic & Fastidious Bacteria" (Logistics supplies the kits)
- Check the expiration date on culture tube to ensure it is not expired (Lab will not accept an expired swab kit!)
- Wash hands and put on disposable gloves.
- Peel open the culture swab kit. Do not touch the swab to any other areas.

**Nares:**
- Swab each nare 2-5 times (clockwise and counterclockwise) with one swab.
- The process should gently rub across the nasal mucous membranes about ¾ inch into the adult nasal passage to obtain squamous epithelial cells (should not be in posterior nostril, stay anterior).
- You can apply slight pressure on the outside of the nose with a finger to help ensure good contact.

**Perineum:**
- For Men: Swab area between scrotum and anus
- For Women: Swab area between vagina and anus
- Rotate swab while brushing across perineum, approximately 3 times.

**Wound:**
- Rotate swab across open wound, approximately 3 times.
- If more than one wound is present, call Infection Control for instructions (4-6694)
How do I obtain the specimen? (cont.)

- Return each swab tip to a separate culture tube, making sure tip is in liquid.
- Break off stick at perforated red line. Twist and secure cap.
- Place proper label (nares, perineum, wound) on specimen.
- Place labeled specimens in bag.
- Remove gloves and perform hand hygiene.
- Send specimens to Lab Central.
- Epic & Collecting Specimen:
  - Order should be “Culture, MRSA Only”, as seen in previous screen shots.
  - *Please indicate the SOURCE (site) in the COLLECTION workflow.

Choosing the correct source in Epic will print the anatomical location on lab label. If source is not specified in Epic, write it on label. Identifying the culture site will be important for evaluating results. Thank you!
More than one wound present?

- Only swab the wound that was **positive** for MRSA.

- If no wounds were **positive** for MRSA:
  - Only culture **one** wound

- If more than one wound was **positive** for MRSA:
  - Culture only **one** wound that was positive for MRSA

- More than one wound with **purulent drainage**:
  - Culture **all wounds** with purulent drainage

**In Summary.....**

Only culture one wound, unless multiple wounds have purulent drainage. In this case, culture all wounds with purulent drainage.
So, you’re thinking:

“This is a lot of work that I don’t have time for?!”
Follow the De-isolation Algorithm

1. Determine when the last positive MRSA culture was performed.
2. Determine if isolation can be removed or if screening swabs are needed.
3. Get LIP orders for either:
   - Discontinuation of isolation
   - Collection of MRSA screening swabs
4. Enter orders into Epic.
5. Collect screening swabs and send to Lab Central.
6. Call Infection Control (4-6694) with questions AND if isolation alerts can be removed.
Remember……..

- The new de-isolation procedure is actually much simpler than the previous policy.
- It will be more effective in de-isolating patients, who are NOT MRSA positive.
- This policy exemplifies the role of RNs at OHSU:
  - Practitioner role
  - Leader Role
  - Scientist Role
- By following the policy, you will help create a safer environment for your patients, coworkers, hospital staff and the community!
THANK YOU FOR TAKING TIME TO LEARN ABOUT
THE NEW MRSA DE-ISOLATION POLICY!

Link to Policy

https://ohsu.ellucid.com/documents/view/2371

IF YOU HAVE ANY QUESTIONS, PLEASE CONTACT
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OR

The Infection Prevention and Control Department
503-494-6694
1. Criteria for Discontinuing Isolation Precautions (The De-isolation Grid) (2012, December 5). Oregon Health and Sciences University, Infection Control, HC-IC-128-POL.


