



## Tampa General Hospital POLICIES & PROCEDURES


Administrative  Interdepartmental  Departmental

Departments Affected: Employee Health, Nursing, Physicians, Epidemiology, Infectious Disease

Subject: MRSA Cultures and Treatment in Healthcare Workers  
Effective Date: 12/96

New Policy/Procedure  
 Revised 12/09

Index Code HR-67  
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Originating Department: Employee Health Services  
Approved by: Deana Nelson 

Title: Executive Vice President, Chief Operating Officer

### PURPOSE:

1. To provide guidelines for culturing healthcare workers during the course of investigating an outbreak of nosocomial MRSA infection/colonization in TGH patient population.
2. To provide guidelines for assessment, treatment, and fitness for duty of healthcare workers colonized or infected with MRSA (methicillin-resistant Staphylococcus aureus).

### POLICY:

During investigations of outbreaks of nosocomial MRSA and under the guidance of infectious disease and epidemiology, MRSA cultures and decolonization will be required on selected healthcare workers. In addition, healthcare workers with identified MRSA colonization/infections will be required to report to Employee Health Services for assessment, treatment, and fitness for duty determination.

### GENERAL OVERVIEW:

The term "methicillin-resistant Staphylococcus aureus" (MRSA) refers to those strains of Staphylococcus aureus bacteria that have acquired multi-drug resistance, specifically to penicillins and cephalosporins. In hospitals, the most important reservoir of MRSA is infected or colonized patients. The main mode of transmission of MRSA in hospitals is person-to-person, via hands, usually of healthcare workers. Healthcare workers who become colonized with MRSA may transmit the organism to patients, but rarely become "infected" themselves with MRSA.

### DEFINITIONS:

1. **MRSA Colonization:** The presence, growth, and multiplication of MRSA in one or more body sites without observable clinical symptoms. Healthcare workers commonly become colonized with MRSA in the anterior nares.
2. **MRSA Carrier:** An individual who has been found to be colonized (positive culture for MRSA) with MRSA at one or more body sites, but who has no signs or symptoms of infection.
3. **MRSA Infection:** An individual who has clinical manifestation of MRSA infection, such as fever, suppurative wound, or pneumonia, documented by positive MRSA cultures from the associated site.
4. **Decolonization:** Topical and/or systemic antibiotic treatment administered for the purpose of eliminating MRSA carriage in an individual.
5. **MRSA Outbreak:** An increase in MRSA cases in the hospital above the baseline level, or a clustering of new MRSA cases that are epidemiologically linked.

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### I. MRSA Outbreak/Cluster Management in Healthcare Workers

#### Responsible

#### Action

Epidemiology  
Director

1. Determines, in collaboration with Infectious disease physicians, the need to culture healthcare workers when other control measures have failed to contain an increased incidence of MRSA in a particular area and/or patient population.
2. Notifies Employee Health director, appropriate department manager(s), infectious disease physicians, and microbiology manager, of need to obtain MRSA cultures on healthcare workers.
3. Provides guidelines for selection of healthcare workers requiring MRSA cultures.

EHS RN/ARNP

#### A. Initial Assessment and Testing of Healthcare Workers

1. With the assistance of department manager(s) identifies specific healthcare workers, physicians, and/or ancillary personnel (i.e., Environmental Services aides, Radiology staff, Respiratory staff, etc.) who frequently work in the particular area identified by Epidemiology.
2. Obtains two nasal swab specimens of anterior nares of healthcare workers. DNA probe is ordered for nares specimens only. Obtains both specimens for MRSA DNA probe using the following procedure:
  - a. Using a sterile bacterial culture swab with transport media, swab both anterior nares with the same swab. Repeat with second swab.
  - b. Label specimens MRSA-P
  - c. Order MRSA-P through Mysis Laboratory System
  - d. Send specimen to lab
3. Determines need to culture other body sites based on a patient examination and/or recommendations from epidemiology and infectious diseases physician (i.e., compromised skin integrity, axilla cultures, etc.)
4. Obtains specimen for bacterial culture using the following procedure:
  - a. Use a separate bacteria culture swab for each site
  - b. Swab the site gently with a rolling motion
  - c. Label specimen "MRSA culture;" identify specific site (i.e., right axilla)
  - d. Order MRSA culture through Mysis Laboratory System
  - e. Send specimen(s) to lab

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<b>B. Decolonization of Healthcare Workers</b>	
1. Reviews MRSA DNA probe and culture results and treats employee as follows:	
RESULT	ACTION
Negative for MRSA colonization	No further testing or treatment is needed.
Positive for MRSA colonization	<p>Treat healthcare worker with the following MRSA decolonization procedure:</p> <ul style="list-style-type: none"> <li>a. Rifampin 300 mg BID or Rifampin 600 mg QD for 7 days.</li> <li>b. One Septra DS (Trimethoprim/Sulfamethoxazole 800/160) BID for 7 days.</li> <li>c. If the employee is allergic to Septra, appropriate antibiotic will be prescribed, based on employee's medical history and culture results.</li> <li>d. Hibiclens bath or shower QD for 5 days.</li> <li>e. Apply Bactroban Nasal ointment to both nostril openings BID for 5 days.</li> </ul>
Positive for MRSA colonization, but unable to be treated with standard decolonization protocol	Refer to the Infectious disease physician for alternative treatment option.

2. Educates healthcare worker on the use of medications and application of Bactroban and Hibiclens.
3. Provides healthcare worker with a copy of the MRSA Decolonization Instructions (available in Employee Health).
4. Instructs healthcare worker to return to EHS between 3 days and 2 weeks, after completing the above treatment for repeat testing.

### **C. Fitness for Duty of Healthcare Workers during Decolonization**

1. In most cases, MRSA DNA probe and/or MRSA culture-positive healthcare workers under decolonization treatment will be allowed to continue to work in their assigned area. However, fitness for duty will be determined on an individual basis by EHS ARNP, in collaboration with Epidemiology and Infectious disease physicians.

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### D. Follow-Up of Healthcare Workers Requiring Decolonization Treatment

1. When employee returns to EHS, 3 days to 2 weeks after decolonization, EHS ARNP repeats MRSA DNA probe and culture(s) as needed.
2. If the repeat MRSA DNA probe and culture result(s) is/are negative, no further follow-up is required.
3. If the repeat MRSA DNA probe and/or culture(s) is/are positive, consults with Infectious diseases physician to determine need for alternative treatment and follow-up culture requirements.

### E. Healthcare Workers with Persistent MRSA Colonization

1. If additional treatment beyond the initial decolonization procedure is prescribed, healthcare workers must complete two follow-up MRSA DNA probes and/or cultures; the first should be 3 days to 2 weeks after the end of treatment; and the second, one week later.
2. If both follow-up MRSA DNA probe and/or cultures are negative, no further follow-up is required.
3. If the follow-up MRSA DNA probe continues to be positive, fitness for duty will be determined on a case-by-case basis by the Employee Health Director, Epidemiology Director, and Infectious disease physician.

Employee

1. Completes an Employee Accident Report if positive MRSA cultures are related to an MRSA outbreak.
2. If removed from his/her work area, as determined by EHS Director and Infections Disease physician, he/she will be placed in the Modified Duty program until appropriate job placement is determined, according to the Modified Duty (HR-42) and Workers' Compensation (HR-43) policies.

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### II. Management of MRSA Colonized and/or Infected Healthcare Workers (not related to an outbreak investigation)

EHS ARNP

#### A. Initial Assessment of Healthcare Workers with Suspected MRSA Colonization and/or Infection

1. Completes assessment of wound and/or suspected site of possible infection (i.e., eyes)
2. Obtains bacterial cultures of wound(s) and/or other body sites, based upon findings of the physical assessment.
3. Obtains specimen for bacterial culture, as needed, using the following procedure:
  - a. Use a separate bacteria culture swab for each site
  - b. Swab the site gently with a rolling motion
  - c. Label specimen "MRSA culture;" identify specific site (i.e., leg wound)
  - d. Order MRSA culture through Mysis Laboratory System
  - e. Send specimen(s) to lab
4. If wound(s) culture results is/are positive for MRSA, notifies employee to return to EHS immediately and obtains two nasal swab specimens of anterior nares. DNA probe is ordered for nares specimens only. Obtains both specimen for MRSA DNA probe using the following procedure:
  - a. Using a sterile bacterial culture swab with transport media; swab both anterior nares with the same swab. Repeat with second swab
  - b. Label specimens MRSA-P
  - c. Order MRSA-P through Mysis Laboratory System
  - d. Send specimen to lab

<b>B. Treatment of MRSA Skin/Soft Tissue Infection with or without Colonization</b>	
RESULT	ACTION
<ol style="list-style-type: none"> <li>1. Positive MRSA Skin/soft tissue or other body site infection</li> <li>2. Negative MRSA colonization</li> </ol>	<ol style="list-style-type: none"> <li>1. Two Septra DS (Trimethoprim/Sulfamethoxazole 800/160) BID for 10 days.</li> <li>2. If the employee is allergic to Septra, appropriate antibiotic will be prescribed, based on employee's medical history and culture results.</li> <li>3. If unable to treat with the above prescribed treatment due to medical contraindications, refers to Infectious disease physician for treatment options.</li> </ol>
<ol style="list-style-type: none"> <li>1. Positive MRSA Skin/soft tissue or other body site infection</li> <li>2. Positive MRSA colonization</li> </ol>	<ol style="list-style-type: none"> <li>1. Two Septra DS (Trimethoprim/Sulfamethoxazole 800/160) BID for 10 days.</li> <li>2. Rifampin 300 mg BID or Rifampin 600 mg QD for 7 days.</li> <li>3. Hibiclens bath or shower QD for 5 days.</li> <li>4. Apply Bactroban Nasal ointment to both nostril openings BID for 5 days.</li> <li>5. If the employee is allergic to Septra, appropriate antibiotic will be prescribed, based on employee's medical history and culture results.</li> <li>6. If unable to treat with the above prescribed treatment due to medical contraindications, refers to Infectious disease physician for treatment options.</li> </ol>

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### C. Fitness for Duty/Education of Healthcare Workers Requiring Treatment and/or Decolonization

1. Educates healthcare worker on the use of medications and application of Bactobran and Hibiclens, if applicable.
2. Provides healthcare worker with a copy of the MRSA Decolonization Instructions (available from Employee Health), if applicable.
3. Instructs healthcare worker to return to EHS between 3 days and 2 weeks after completing the above treatment, for repeat testing.
4. Based upon the location of the infection, the amount of drainage, the ability to contain drainage, and/or the requirements of the infected employee's job title, fitness for duty will be determined on an individual basis by EHS ARNP, in collaboration with Epidemiology and Infectious disease physicians.
5. Notifies epidemiology clinician of job title and department of infected employee.

### D. Follow-up of Healthcare Workers Requiring Decolonization/Treatment of MRSA Skin/Soft Tissue Infection

RESULT	ACTION
1. Positive MRSA Skin/soft tissue or other body site infection  2. Negative MRSA colonization	1. When employee returns to EHS, 3 days to 2 weeks after treatment, repeats MRSA culture(s) as needed.  2. If the repeat MRSA culture(s) is/are positive, consults with Infectious disease physician to determine need for alternative treatment.  3. If the repeat MRSA culture(s) is/are negative, no further follow-up is required.
1. Positive MRSA Skin/soft tissue or other body site infection  2. Positive MRSA colonization	1. When employee returns to EHS, 3 days to 2 weeks after decolonization and treatment, EHS ARNP repeats MRSA DNA probe and culture(s) as needed.  2. If the repeat MRSA DNA probe and/or culture(s) is/are positive, consults with Infectious disease physician to determine need for alternative treatment.  3. If the repeat MRSA DNA probe and culture result(s) is/are negative, no further follow-up is required.

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**E. Healthcare Workers with Persistent MRSA Colonization**

1. If additional treatment beyond the initial decolonization procedure is prescribed, healthcare workers must complete two follow-up MRSA DNA probes and/or cultures; the first should be 3 days to 2 weeks after the end of treatment; and the second, one week later.
2. If both follow-up MRSA DNA probe and/or cultures are negative, no further follow-up is required.
3. If the follow-up MRSA DNA probe continues to be positive, fitness for duty will be determined on a case-by-case basis by the Employee Health Director, Epidemiology Director, and Infectious disease physician.

APPROVED BY:

  
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JoAnn Shea, Director, Employee Health Services

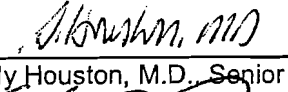
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Peggy Thompson, Director, Infection Prevention

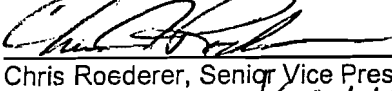
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John Sinnott, MD, Medical Director, Employee Health Services

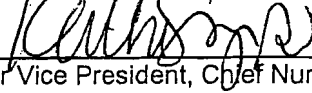
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Sally Houston, M.D., Senior Vice President/Chief Medical Officer

12/25/09  
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Chris Roederer, Senior Vice President, Human Resources

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Kathi Sengin, Senior Vice President, Chief Nursing Officer

1/10/10  
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Date

Employee Health Services  
**MRSA Decolonization Procedure**

*It is very important that you complete the treatment plan outlined below to treat your MRSA colonization.*

**1. Take the following prescribed medications:**

- Rifampin 300mg one tablet twice a day for 7 days **OR**  Rifampin 600mg tablet once a day for 7 days  
*Take Rifampin on an empty stomach, one hour before or two hours after a meal.*

**AND**

- Take ONE Septra DS (Trimethoprim/Sulfamethoxazole 800/160) tablets two times a day for 7 days.  
*Take the Septra tablets with at least eight ounces of water. Increase your fluid intake while taking Septra.*

**OR**

- \_\_\_\_\_ Dose: \_\_\_\_\_ Duration: \_\_\_\_\_

**2. Take a Hibiclens bath or shower once a day for 5 days**

*Wash entire body using Hibiclens as a body wash instead of your usual soap*

**3. Apply Bactroban Nasal ointment to both nostril openings twice a day for 5 days**

*Approximately one-half of the ointment from the single-use tube should be applied into one nostril and the other half into the other nostril twice daily for 5 days. After application into nostrils, press sides of nose together and gently massage to spread ointment throughout the insides of the nostrils; discard tube after use.*

**4. Between 3 days and 2 weeks after completing the above treatment, you must report to Employee Health for a repeat MRSA culture.**

I started my medication on: \_\_\_\_\_ I will finish my medication on: \_\_\_\_\_.

I will return to Employee Health between \_\_\_\_\_ and \_\_\_\_\_.  
(3 days after I finish medication) (2 weeks after I finish medication)

**Medication Warnings and Contraindications**

1. Rifampin may:
  - a. interfere with the effectiveness of oral contraceptives. If you are on birth control pills you should also use a barrier method of contraception (i.e. condoms or diaphragm) for the remainder of your current cycle.
  - b. stain soft contact lenses permanently yellow. Refrain from wearing your soft contacts until five days after completion of Rifampin therapy.
  - c. cause a harmless red-yellow discoloration of your urine, tears, perspiration, feces or sputum.

Do not take Septra DS if you have been told you are allergic to “sulfa” drugs.

**Questions?**

To speak to an Employee Health Services nurse, call 813-844-7649 (Monday - Friday, 7:00AM to 4:30 PM).