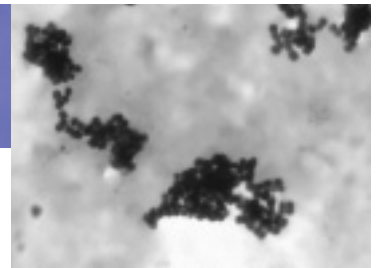


COMMUNITY TREATMENT PROTOCOL FOR METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)



INFORMATION FOR COMMUNITY PRACTITIONERS

Staph. aureus are gram positive bacteria which commonly colonize the human nose and skin. They are also the most common cause of serious nosocomial (hospital acquired) infections. Although most *Staph. species* are resistant to penicillin, they have been, until recently, sensitive to the synthetic penicillin **methicillin**.

Growing resistance to methicillin by *Staph. aureus* is a worldwide phenomenon which poses a serious public health threat because it limits treatment options for infected patients, and raises the potential for multi-drug-resistant bacteria. Controlling the spread of MRSA is particularly important in hospitals and long-term care facilities, where individuals vulnerable to serious infection by virtue of poor general health and/or compromised immune function are concentrated.

Although healthy people in community settings - including healthcare personnel and family members - have little likelihood of acquiring a serious infection from MRSA, treatment of infection and eradication of colonization in MRSA patients in the community is important to prevent the spread of bacterial drug resistance.

The following definitions and treatment protocol are meant to assist community practitioners to undertake appropriate treatment, monitoring, and consultation for individuals infected or colonized with MRSA, and to enable them to provide accurate information and advice to patients, families, and home support personnel.

DEFINITIONS

Colonization - The presence of MRSA at a body site without evidence of tissue damage or systemic response. Colonization may be a precursor to infection. Transient carriage may occur on the unwashed hands or unsterilized equipment of a health care provider, which can become a source of transmission for the organism to other vulnerable individuals.

Infection - The entry and multiplication of MRSA in a person's tissue, generally with evidence of clinical infection such as local tissue damage or systemic immune response (temperature, white blood cell count). Presence of MRSA in urine or sputum is considered as infection.

MRSA COMMUNITY PATHWAY



Allergies: _____ No known allergies

Patient Identification: _____

MRSA Treatment Guidelines <input type="checkbox"/> Check (√) if applicable	Date
Positive Sites:	
<p>1. Precautions (may be revised as per specific institutional protocol)</p> <ul style="list-style-type: none"> a) Hand hygiene with soap and water washing or hand sanitizer b) Gloving c) Gowns for direct contact with infected body secretions d) Mask e) Clean equipment with 70% isopropyl alcohol f) Double bagging of soiled disposables g) Leave dedicated equipment in home (e.g. BP cuff, stethoscope) h) No need to isolate from family members with the exception of the immunocompromised, chronically ill or newborns 	
<p>2. Standard Decolonization Protocol</p> <ul style="list-style-type: none"> a) Bathe with 2% chlorhexidine soap daily x 7 days b) Clean all open wounds and all MRSA-positive insertion/drain sites with chlorhexidine 0.05% solution daily for 7 days c) Apply mupirocin (Bactroban®) 2% ointment TID for 7 days to: nares, all open wounds, insertion/drain site and all positive surface sites 	Start Date
	Finish Date
<p>3. Treatment of MRSA Infection Protocol</p> <ul style="list-style-type: none"> a) Maintain standard decolonization protocol for the entire duration of treatment for MRSA Infection b) Wound infections without systemic infections (choose 2 treatments based on sensitivities) <ul style="list-style-type: none"> <input type="checkbox"/> Rifampin 600 mg daily x 7 days <input type="checkbox"/> Fusidic acid 500 mg TID x 7 days <input type="checkbox"/> Doxycycline 100 mg BID x 7 days <input type="checkbox"/> TMP/SMX DS 1 tablet BID x 7 days <input type="checkbox"/> Other _____ c) Other infections, e.g. Sputum or Urine with systemic symptoms <ul style="list-style-type: none"> <input type="checkbox"/> Consultation with Infectious Disease Specialist <input type="checkbox"/> IV Vancomycin (to be determined by ID Specialist) <input type="checkbox"/> Other _____ 	Start Date
	Finish Date
	Consult Date

Date: _____ Signature: _____ MD

Time: _____ Print Name: _____

MRSA COMMUNITY PATHWAY



Allergies: _____ No known allergies

Patient Identification: _____

MRSA Post-Treatment Guidelines

1. Cultures after Completed Treatment

- a) Culture all patients using separate swabs for each of the following sites.
Please circle + / - for positive or negative culture results, respectively.

Site		Date of Specimen Collection		
		(48 hours)	(Day 9)	(Day 16)
Both nares		+ / -	+ / -	+ / -
Rectum		+ / -	+ / -	+ / -
All open lesions		+ / -	+ / -	+ / -
All insertion / drain sites		+ / -	+ / -	+ / -
Other		+ / -	+ / -	+ / -
		+ / -	+ / -	+ / -
		+ / -	+ / -	+ / -
		+ / -	+ / -	+ / -
Culture Result Follow-up	Signature			
	Date			

Maintain all precautions until 3 consecutive negative cultures obtained.

2. Treatment Success

- Defined as 3 negative cultures one week apart
- Discontinue precautions
- Recommend cultures of potential colonized sites, including wounds or insertion/drain sites, if condition deteriorates or on systemic antibiotics
- If positive culture, see treatment failure

3. Treatment Failure

- Defined as positive culture result
- Escalate treatment using Mupirocin and oral antibiotic treatment as per Treatment of MRSA Protocol
- Continue precautions
- For multiple treatment failure, consult Infectious Disease Specialist

Date: _____ Signature: _____ MD

Time: _____ Print Name: _____



1. What is MRSA? Where does it tend to live? Where do you find it?

Staphylococcus aureus are bacteria that are **commonly found** on the skin and mucous membranes, such as in the nose, of healthy people. Anyone can be a carrier of these bacteria and not know it. *Staphylococcus aureus* are not usually harmful to healthy people but may cause infection in sick people. Studies have shown that between 30-80% of the population can carry the bacteria in their nose at one time or another. Occasionally these bacteria can cause minor infections such as pimples, boils and other skin infections. They also have the potential to cause very serious wound infections, blood infections and pneumonia.

Some of these bacteria have developed resistance to methicillin and other antibiotics that are commonly used to treat infections. These resistant bacteria are called Methicillin Resistant *Staphylococcus aureus* (MRSA).

2. Why is MRSA a problem?

It is important to eliminate MRSA in the community to prevent these drug-resistant bacteria from spreading to people whose ability to fight infections is decreased. It is harder to treat MRSA in someone who is already ill.

3. How Do I Get MRSA?

MRSA is most frequently spread through direct contact with unwashed hands or contaminated equipment. If health care staff do not wash their hands between patients, they can spread the bacteria. MRSA is not passed through the air.

People who are at an increased risk of getting MRSA are those with:

- wounds
- permanent feeding tubes
- indwelling urinary catheters
- IVs
- recent antibiotic therapy
- diabetes
- severe debilitation
- malnutrition
- medical complications, post operatively

If the bacteria finds an opening into the body such as an open wound, an infection can occur.

4. Why do we use chlorhexidine and medication?

The purpose for the medication ordered by the doctor is to help eliminate the bacteria on the skin or the infected site. **Chlorhexidine** is a special soap used to eliminate the bacteria on the skin. It should be used for bathing and hand washing. Caregivers should use it to wash their hands.

Antibiotic ointment may be used against MRSA found in parts of the body, like the nose, where it is commonly found. For infections in other areas, antibiotics, given by pills or IV, may be used. Your physician will decide on the appropriate course and length of treatment. After treatment, swabs will be taken at weekly intervals to ensure MRSA is gone.



5. Why do health care providers take precautions such as wearing gloves, masks and gowns when providing care?

- Gown and gloves are worn to prevent carrying the bacteria to other patients
- Masks are worn to remind the caregiver not to touch their nose. *Staphylococcus aureus* is commonly found in the nose.
- Hand washing is very important. Hands are the main way that bacteria are spread. Care providers should wash their hands before giving care and before leaving the patients home.

6. When can precautions be stopped?

All precautions may be stopped once you have received three negative swabs in a row. The swabs must be taken one week apart. You should continue to maintain good hand washing techniques.

7. Can I get MRSA again?

Yes. You are most likely to get MRSA again if you have poor nutrition, poor hygiene, or a health problem that requires frequent hospital admissions with repeated use of antibiotics.

8. Why are outpatients with MRSA treated differently in hospital than at home?

MRSA is most frequently spread from one point to another on the hands or equipment of healthcare workers. In a hospital setting people are ill, and are at greater risk to acquire MRSA.

9. Who needs to know that I have MRSA?

Tell any doctor, nurse, homemaker, dentist or other health care providers who are treating you. Routine social contact is safe. There is no risk to others when good hand washing techniques are used. Day to day contact with household guests and family is not a problem.

10. Is my family at risk?

No, the risk for healthy members is minimal if they use good hand washing techniques and practice proper body hygiene. MRSA poses little risk to normal healthy people. Both casual contact such as touching and more intimate contact are safe.

11. Once I return home will my surroundings need to be disinfected?

No. Regular dishwashing of dishes and cutlery is perfectly adequate. Similarly, laundry can be handled in the usual way with regular wash and dry cycles. Regular household cleaners such as Lysol and Pinesol are effective in killing the bacteria on household items.

CLIENT WITH MRSA

Client's Name: _____

Address: _____

Ontario Health Card #: _____ CAF#: _____



Client With MRSA

Infected

Colonized

Positive Swab Sites Taken: _____ **Date:** _____

Nares

Urine

Axilla

Sputum

Groin

Wound

Rectum

Other

Treatment Initiated: **Type:** _____ **Date:** _____

Follow up Swabs:

Site: 1)

Date: 2)

Results: 1) +/-

2)

2)

2) +/-

3)

3)

3) +/-

Next Culture Date: _____ **By Whom:** _____

Results to:

1) MD _____ Notified

2) EYAC Coordinator (name) _____ Notified

Clients Going Home:

Appointments Booked

Copy to Family Doctor - protocol

Give MRSA ID Card

- information sheet

Order supplies:

Gown

Mask

Gloves

order MDS

Chlorhexidine

Information Package Given

All Provider Agencies Notified

MRSA Treatment Included On Referral

Name of Coordinator: _____ Date: _____