



# Policy for the Control and Prevention of Methicillin Resistant Staphylococcus Aureus

**Department:** Infection Control

<b>Prepared by:</b>	Infection Control Nurse
<b>Agreed and Authorised by:</b>	Infection Control Committee
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## Amendment / Revision Register

Date of Review	Name of Reviewer	Amendment/Revision
11-05-05	Amanda Scaysbrook	Areas for screening changed
19-11-08	Amanda Scaysbrook	Transferred on to Contensis. Staff screening not required. All inpatients to be screened.
31-03-09	Amanda Scaysbrook	Adding screening for NHS patients and listing patients that are excluded from MRSA screening

## Introduction to Policy

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Methicillin resistant Staphylococcus aureus (MRSA) is an organism which has developed multiple drug resistance. It may colonise without invasion or can cause various degrees of infection ranging from mild to life threatening. The control and prevention of MRSA is therefore an important factor in the provision of patient care.

## Policy Statement or Purpose

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The purpose of this policy is to control and prevent the spread of MRSA through effective and evidence based practice.

## Definitions

### **Staphylococcus aureus:**

A bacterium carried in the nose of around 20-40% of the population, often harmless.

### **Methicillin resistant Staphylococcus aureus:**

A resistant strain of Staphylococcus aureus which can result in patient colonisation or infection.

### **Colonisation with MRSA :**

Is the presence and multiplication of MRSA at a body site without tissue invasion or damage.

### **MRSA Infection:**

Entry of a pathogen into the body and its multiplication in the tissues leading to symptoms such as pyrexia, inflammation and septicaemia.

### **MRSA Screening**

MRSA screening is the microbiological testing of a sample taken from the potential carriage sites of a patient. It is the process by which patient who are colonised with MRSA are identified.

## Responsibilities

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### **Hospital Director**

The Hospital Director has overall responsibility for ensuring Benenden Hospital has appropriate policies and procedures in place to ensure the hospital continues to work to best practice and complies with all relevant legislation.

### **Director of Infection Prevention and Control**

The Director of Infection Prevention and control is responsible for overseeing the implementation of infection control policies within the hospital and for ensuring that adequate resources are available for the functioning of these policies.

### **Infection Control Nurses**

The Infection Control Nurses are responsible for writing the policy and acting as a resource for information on the control and prevention of MRSA and providing support for education opportunities to all staff.

### **Link Nurses**

The Link Nurses are responsible for promoting and familiarising staff with the policy and assisting with auditing it's compliance.

### **Managers**

Managers are responsible for ensuring adequate dissemination and implementation of this policy. Managers have a responsibility to ensure appropriate training is made available to staff who are involved in the care of patients affected by MRSA.

### **All Staff**

All staff are responsible for reading and understanding this policy and ensuring that their practice complies with this policy.

## Procedure

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### **Screening for MRSA**

#### **Patients for Screening**

All patients for admission to the Inpatient ward and patients in the 'High Risk' category for day case surgery and procedures must be screened for MRSA prior to their admission.

'High Risk' Category includes:

Those with previous MRSA history either before or on admission

All patients who have been admitted to another hospital in the 12 months. (for an overnight stay or longer)

Health Care Workers, including Dental Nurses

Patients arriving from other hospitals

Patients for orthopaedic and podiatry surgery

Patients for cardioversion

The following patients are excluded from any MRSA screening;

Day case ophthalmology  
 Day case dental  
 Day case endoscopy  
 Minor dermatological procedures, e.g. warts or other liquid nitrogen applications  
 Children/paediatrics

Elective NHS patients will be screened for MRSA, except the patients having the above procedures.

### **Staff Screening**

Routine screening of staff for MRSA carriage is not recommended practice although the Infection Control team may advise screening when there are particular epidemiological features to indicate that a staff member or members may be the source of linked cases of MRSA infection.

### **When to Screen**

Screening should take place at least two weeks prior to admission.

### **Procedure for taking Swabs**

Hands must be decontaminated prior to undertaking the procedure.  
 MRSA broth screening method ( see appendix 1)

### **Management of patients found to be colonising MRSA prior to admission**

The Infection Control Nurse will inform the patient of their positive MRSA status and advise their General Practitioner to instigate the decolonisation treatment:

All treatment is for 5 days unless told otherwise

#### **1 Chlorhexadine 4% (Skin cleanser)**

Wash or shower each morning, paying particular attention to the underarms, groin and any colonised areas. Shampoo the hair twice during the 5-day period using the Chlorhexadine 4% skin cleanser.

#### **2 Mupirocin 2% nasal ointment (Bactroban)**

Apply a small amount to the inside of both nostrils, 3 times a day.

Patients must be rescreened 48 hours after completion of the treatment and must be negative to MRSA prior to their admission. However, in extreme cases, a patient who has used the decolonisation treatment after two positive MRSA screens and continues to be colonising MRSA may be treated at this hospital. Their management is outlined in this policy.

All patients known to have been infected or have colonised MRSA must receive prophylactic antibiotics at induction of anaesthesia. Refer to the Antibiotic Policy - Antibiotic Prophylaxis Policy, App Ab1 On Trek.

### **Management of patients with an MRSA infection (or patients with an unknown MRSA status)**

The infection control measures to prevent spread of MRSA are the same whether the patient is colonised or infected with MRSA. Carefully selected treatment is necessary to treat the infection and if possible to eradicate colonisation. (Patients may be admitted to the hospital with MRSA infections that require treatment with surgery).

The management of patients with MRSA requires standard infection control measures with particular emphasis on:

- Single room isolation
- Hand disinfection
- Barrier precautions
- Environmental cleaning
- Equipment

Any breach of the above infection control measures may result in the transmission of the organism to other patients or staff who may then become colonised and subsequently colonise or infect others.

### **Isolation**

Isolation room doors should be kept closed whenever possible to minimise spread to adjacent areas. If this is likely to compromise patient care for example, in elderly confused patients, a risk assessment should be made and documented by the ward nursing staff as to whether the door may be kept open. However, doors must be closed for procedures that may generate staphylococcal aerosols, for example, bed making and wound dressing.

Signs must be displayed outside of the isolation room describing the necessary steps to be taken when entering and leaving the room.

A designated bathroom should be identified and marked for use by this patient only.

Linen and waste from the isolation room must be dealt with as the Isolation policy states.

### **Hand disinfection**

Correct hand hygiene remains one of the most important means to prevent transmission of infection. Hand washing with 4% Chlorhexidine gluconate is recommended for use by all ward personnel and visitors after direct patient contact and prior to contact with other patients. An alcohol-based handrub should be readily available for use between procedures involving the same patient or after very transient, low risk patient contact and must be used on leaving the room. This does not replace the need for proper handwashing.

**Barrier precautions**

Staff do not need to wear protective clothing unless they are having direct physical contact with the patient or their immediate environment.

Visitors are not required to wear protective clothing, but must be asked to decontaminate their hands on entering and leaving the room.

Further details can be found in the isolation policy on Trek.

**Environmental cleaning****Daily Cleaning**

Both the isolation room and the designated bathroom(shower) and toilet area should have all surfaces(except walls and ceilings) cleaned with hot water and sanitiser.

This should be the last area on the ward cleaned by the housekeeping staff.

**Cleaning Following Patient's Discharge:**

Following the patients discharge both the isolation room and designated bathroom (shower) and toilet should be cleaned with:

Hot water and sanitiser, then with the fogging machine, which is kept on York ward.

Walls need not be cleaned unless visibly stained. Curtains need not be taken down, unless soiled.

**Equipment**

Equipment (for example, sphygmomanometers and stethoscopes) used on patients with MRSA infection/colonisation, should preferably be single patient use or designated for MRSA patients. Multiple-patient use items must be decontaminated appropriately before use on another patient in accordance with local policy or manufacturers instructions. Detergent wipes are suitable for items such as wheelchairs, commodes, syringe drivers infusion pumps and tympanic thermometers.

**Visits to Other Departments**

Transfer of the patient with MRSA between wards should be strictly limited and carefully supervised. The Infection Control Team must be informed.

It may be necessary for a patient with MRSA to visit other departments within the hospital for procedures or investigations. The department concerned should be notified of the MRSA status of the patient as soon as possible, prior to the visit, so that appropriate arrangements can be made. Normally this is straightforward but if necessary advice can be obtained from the Infection Control Team with regard to individual patient circumstances. Situations will vary depending on patient need, positive site and underlying risks to others.

**MRSA Positive Patient Attending The Out-Patient Department**

A separate waiting facility should be provided for a known MRSA positive patient in the following circumstances, if they:-

- Are heavily colonised
- Have an exfoliative skin condition
- Are known to contain MRSA within their chest and are coughing frequently

Any visitor accompanying the patient should remain with them throughout the visit.

A single-use toilet facility should be provided for their visit. However, if this is not possible, a commode should be made available for their use.

A designated member of staff should be assigned for this patient's care throughout the visit. They should not assist in any other clinic room during this period.

Staff (nurses, doctors and consultants) should observe strict hand washing before and after dealing with the patient. An alcohol handrub should be available in the room.

Plastic aprons should be worn when attending the patient.

Gloves must be worn by staff handling dressings or tissues.

Any linen and waste must be treated as contaminated and, therefore, disposed of according to Hospital Policy.

Should the patient require further investigations in any other department, e.g. chest X-ray, lung function test, etc., ensure relevant departments are informed so that the MRSA policy can be followed, and place at the end of the morning list.

At the end of the visit ensure all staff involved in this patient's care wash their hands accordingly before attending another patient.

Post visit all immediate horizontal surfaces (i.e. table, chair, couch, door handles) should be cleaned with hot water and sanitiser followed by Sodium Dichloroisocyanurate (NaDCC) - ACTICHLOR - 1,000 p.p.m. (2 Haz-Tabs to 5 litres of cold water).

The room may be re-used on the same day once the area has been properly ventilated following the use of the Sodium Dichloroisocyanurate (NaDCC) - ACTICHLOR - 1,000 p.p.m.

The floor need only be cleaned with hot water and sanitiser followed by Sodium Dichloroisocyanurate (NaDCC) - ACTICHLOR - 1,000 p.p.m. at the end of the working day. (Liaise with the Housekeeping Services to ensure this is able to be carried out.)

**MRSA Positive Patients Attending Theatres**

All known MRSA patients having planned surgery **must** be placed on the end of the list.

Porters and nurses involved in the transfer of patients must wear gloves and aprons as necessary depending on likely contact with the patient or contaminated beds etc.  
Hands must be decontaminated when gloves and aprons are removed.  
There is no need to wear gloves and aprons through the hospital unless direct clinical contact with the patient is likely en route.  
On arrival to theatre the patient should be taken directly to the operating theatre.

#### **Theatre Personnel**

Universal precautions must be strictly adhered to (Universal precautions policy on Trek).  
Additional protective clothing is not necessary although there should be masks and goggles available for the scrub team should splashes be likely.  
Unnecessary equipment should be removed from theatre before the patients' arrival.  
Excess staff members to be asked to leave for the procedure  
The patient should be anaesthetized and recovered in theatre.  
Theatre should be cleaned as soon as possible after the patient has vacated, using Sodium Dichloroisocyanurate (NaDCC) - ACTICHLOR - 1,000 p.p.m. Then doors must be closed and theatre left for at least 30 minutes to allow for a complete air exchange.  
All rubbish to be disposed of as clinical waste.  
Linen must be handled as infected.  
All theatre personnel involved in the care of the patient must change theatre clothing at the end of the case.

#### **ENSURE HANDS ARE WASHED WITH CHLORHEXADINE 4% AFTER EVERY PATIENT INTERVENTION AND AFTER REMOVING GLOVES.**

#### **Patient Information**

The psychological wellbeing of each patient must be considered. The nature of MRSA infection/colonization and the relevance of practices and procedures should be explained to the patient and relative. An information leaflet about MRSA for patients, staff and relatives is available.

#### **Education**

Education regarding the control and management of a MRSA is carried out yearly, at the statutory updates and new staff are given instruction on induction. Any changes to the process are delivered to all staff by email and reiterated at the updates and at a departmental level.

### **Monitoring, Review and Audit**

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#### **Monitoring Compliance of this Policy**

Compliance with this policy will be reflected in patient activity. Any incident where non-compliance with this policy is considered an actual or potential risk it must be documented on an incident form. The Infection Control Nurses will investigate the cause using a Root Cause Analysis Tool adapted from the Department of Health and the Ward Manager will draw up an action plan to point out the steps necessary to prevent further occurrence of the incident. These incidences are reported on a quarterly basis by the Infection Control Nurses and passed on to Clinical Governance, The Infection Control Committee and the Hospital Management Board for their information.

#### **Audit**

A rolling programme of audits, carried out by the Infection Control Nurses and their Link Nurses, is in place with reference to certain aspects of this policy and will reflect on it's compliance. They include : Hand hygiene and Waste disposal.

Audits for patients admitted to the isolation room who are positive to MRSA or awaiting MRSA results, are to be carried out by the Infection Control Nurse or Link Nurses to monitor compliance with the policy. The audit tool as can be found in the Infection Control folder or designated area in the clinical departments. Training needs may be identified from the findings of the audits and the Infection Control Nurses will liaise with the appropriate manager to develop the training required.

This policy will be reviewed every two years.

### **Associated References**

Policies used in conjunction with this policy can be accessed from the hospital trek:  
Antibiotic prophylaxis policy, found in the antibiotic policy, appendix Ab1 (pharmacy)  
Isolation policy (infection control)  
Universal precaution policy (infection control)

## Appendices

### Appendix 1 - Protocol for undertaking MRSA screens – Broth method

- All MRSA admission screens
- Patients attending the Pre-assessment Clinics
- MRSA follow-up screens
- Long-stay/ward screens

**Body sites** – Nose and axillae (**not** groin) only. If there are any additional sites to be screened (i.e. leg ulcers, wounds etc), charcoal swabs must be used.

#### Method and equipment:

2 plastic tipped swabs (supplied with the Broth)  
1 bottle of Broth (NB: 1 bottle per patient screen)  
Printed PAS label

1. Swab **both** nostrils with 1 plastic tipped swab
2. Open the Broth bottle and swirl the plastic tipped swab in the Broth for **5 seconds**
3. **Discard the swab** as clinical waste; replace the lid on the Broth
4. Swab **both** axillae with 1 plastic tipped swab
5. Open the Broth bottle and swirl the plastic tipped swab in the Broth for 5 seconds.
6. Discard the swab as clinical waste; replace the lid on the Broth
7. Print a PAS label and affix it to the Broth bottle
8. Send the Broth to the Laboratory

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#### Important Notice:

For legal purposes the official policy in operation is the electronic version. This document has been viewed at 3:07 on the 31 Mar 2009 from the Benenden Hospital Trust portal.