

## **Policy 14**

# **MRSA: Guidelines for the management of methicillin resistant *Staphylococcus aureus* (MRSA), including screening and decolonisation**

<b>Contents</b>	<b>Page</b>
1 Scope .....	2
2 Aim .....	2
3 Introduction.....	2
4 Roles and responsibilities.....	3
5 Patient screening policy .....	5
5.1 Categories of patients to be screened.....	5
5.2 Sites to be screened .....	7
6 Treatment of MRSA colonisation in hospital inpatients .....	7
7 Hospital procedures for the management of MRSA positive inpatients.....	10
7.1 Placement and general management.....	10
7.2 Measures for theatres and other departments .....	12
8 Treatment of MRSA colonisation for patients who are not current inpatients .....	13
9 General management issues .....	13
10 Bed management.....	14
11 Management of MRSA outbreaks .....	14
12 Management of MRSA in intensive care settings .....	15
13 Staff screening policy.....	16
13.1 Principles of screening of staff.....	16
13.2 Management of MRSA positive staff .....	17
14 Contact numbers.....	18
15 Monitoring the effectiveness of the policy .....	19

## 1 Scope

Trust-wide.

## 2 Aim

To ensure timely identification, treatment and effective management of patients found to be MRSA positive and to implement Department of Health (DH) and Regional Strategic Health Authority (SHA) policy.

## 3 Introduction

*Staphylococcus aureus* is the most important cause of wound and skin infections. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a strain of *S. aureus*, which has become resistant to some anti-staphylococcal antibiotics, including the penicillins and cephalosporins and commonly erythromycin and ciprofloxacin.

In common with sensitive *Staphylococcus aureus* MRSA can colonise the nose and other skin sites and be carried without causing infection. However, it has the potential to cause serious disease including:

- blood stream infection,
- endocarditis,
- bone/joint infection and
- pneumonia.

Some individuals, known as 'Staphylococcal dispersers,' may heavily contaminate the environment. MRSA rarely causes infection in healthy people, such as health care workers (HCWs) and their families. MRSA can spread by the airborne route, but is most commonly spread on the hands of health care workers.

The revised guidelines for the control of MRSA in hospitals, published in 2006 by a [British Society for Antimicrobial Chemotherapy \(BSAC\)](#) / [Hospital Infection Society \(HIS\)](#) / Infection Control Nurses Association (ICNA) Working Party<sup>1</sup> state that the occurrence of invasive infections, the limited options for therapy and the propensity of MRSA to spread and colonise debilitated patients justify continued efforts to control its spread. Colonised patients may subsequently develop clinical infections and may act as a reservoir for infection for other vulnerable individuals. The Working Party concluded that:

- control of MRSA is still an important factor in provision of quality patient care;
- control programmes help minimise numbers of affected patients during 'outbreaks'; and
- control strategies are cost effective.

## **Infection Control**

### Patient Safety Directorate

---

In order to monitor the effectiveness of MRSA control policies the DH introduced mandatory MRSA Bacteraemia Surveillance for all acute trusts in April 2001<sup>4</sup> contributing to the star ratings of acute hospital trusts.

## **4 Roles and responsibilities**

### **4.1 Infection Control Team**

The Infection Control Team (ICT) will be responsible for:

- The formulation of up to date, evidence-based guidelines which will form part of the MRSA policy (available on Connect).
- Updating the MRSA policy two yearly or more frequently in the light of:
  - new guidelines,
  - mandatory requirements, or
  - new research evidence.
- Advising the hospital on:
  - the most appropriate use of isolation facilities for care of MRSA positive patients and
  - patient flow across the Trust.
- Formulating screening guidelines across the organisation.
- Advising on the most appropriate methods for auditing knowledge of and compliance with the policy.
- Providing education / training on care of MRSA patients for all staff as appropriate to their roles.
- Supporting the Occupational Health Department with appropriate advice for staff.
- Undertaking monthly reporting on compliance with agreed aspects of the policy.

### **4.2 Ward / department manager**

The Ward / department manager should act as a role model in the demonstration and promotion of best practice.

The Ward / department manager is responsible for ensuring that:

- staff are aware of the contents of the policy and know where to access this as required;

## **Infection Control**

### Patient Safety Directorate

---

- facilities for provision of isolation and barrier nursing are available. Alcohol handrub must be available outside isolation rooms as a minimum. There must be provision of appropriate personal protective equipment eg gloves, aprons / gowns, masks as required;
- there are sufficient notices displayed which indicate which patients are being barrier nursed;
- there is robust system of audit and feedback of compliance with screening and decolonisation. Results should be reported to ward / departmental staff and the ICT. There should be agreed action plans to remedy deficits identified;
- clinical staff attend the mandatory Infection Control session on joining the Trust;
- clinical staff complete the Infection Control mandatory training on an annual basis, which includes education and updates of practices for managing MRSA across the organisation;
- the Infection Control link nurses (ICLNs) have dedicated time, as agreed in the ICLN Standard, to carry out education on MRSA management for clinical staff within their work areas;

#### **4.3 Infection Control link nurses (ICLNs)**

The ICLNs should:

- actively participate in all events promoting the importance of MRSA management;
- act as a resource for other ward staff requiring information and guidance on caring for MRSA patients and their families.

#### **4.4 Occupational Health Team**

The Occupational Health Team is responsible for advising, treating and monitoring staff who are found to be MRSA positive.

#### **4.5 Consultants / staff grades and Infection Control leads**

Consultants / staff grades / Infection Control leads will act as role models in the execution of best practice in caring for MRSA positive patients.

Medical consultants will be responsible for ensuring that junior medical staff within their team follow best practice guidelines.

#### **4.6 Medirest**

The Medirest site manager will be responsible for ensuring that:

- all staff complete an infection prevention and control induction session.

## Infection Control

### Patient Safety Directorate

---

- all Medirest staff are assessed on their knowledge and practice pertaining to MRSA patients as appropriate. Training should be recorded.

#### 4.7 Infection Control directorate leads

The Infection Control directorate leads will promote best practice and feedback results of appropriate audit / monitoring of compliance with MRSA practices at Clinical Governance Directorate meetings as well as reported to the Trust Board.

#### 4.8 Primary Care Trust (PCT)

The PCT will:

- agree the screening and decolonisation policy with the acute trust;
- be responsible for monitoring compliance with those patients followed up in the community.

### 5 Patient screening policy

Screening patients for MRSA identifies colonised or infected patients, who can act as a reservoir of MRSA for more vulnerable individuals. This enables the Trust to facilitate effective patient management and prevent the transmission of MRSA.

MRSA Screening should be undertaken in line with:

- DH *Screening for MRSA colonisation – a strategy for NHS Trusts: a summary of best practice* (July 2008 and DH Gateway Refs 10324 and 11123)<sup>2,3</sup> and
- East of England Strategic Health Authority Operational Guidance (7 October 2008)<sup>4</sup>

The DH and SHA guidance states that:

“microbiological screening must include all elective admissions to an acute trust irrespective of length of stay (but excluding a few patient categories as listed below)...MRSA colonised or infected patients should have effective decontamination and inpatients must be promptly identified and nursed in an appropriate isolation facility eg a side room or cohort bay.”

#### 5.1 Categories of patients to be screened

The following patients will be screened for MRSA:

- All elective medical and surgical admissions (irrespective of length of stay) where a planned procedure is scheduled, or where the admission is coded as a ‘day case.’ These patients will appear on HISS as ‘Source/Type EB (elective booked), EP (elective planned) or EW (elective waiting list). The only exclusions are:
  - day case ophthalmology;
  - day case dental;
  - minor dermatological procedures;

## Infection Control

### Patient Safety Directorate

---

- day case endoscopy / colonoscopy / sigmoidoscopy / hysteroscopy;
- day case termination of pregnancy; and
- radiological day case procedures.

Patients admitted to the Trust through the Emergency Department (ED) should be screened in the ED before transfer to the ward.

Patients admitted directly to the wards should be screened on the ward on admission (eg:

- inter-hospital transfers;
- those from clinics;
- paediatric patients).

Patients in Intensive Care and High Dependency Units will be screened on admission to the unit and weekly thereafter.

Women with uncomplicated pregnancies should be screened during the last trimester (approx 36 weeks gestation) if attending the Trust at this time for antenatal care. If this does not occur and they are admitted at a later date for inpatient care or delivery, they should be screened on admission.

All patients booked for elective surgical or other invasive procedures will be screened at their pre-elective visit provided that the waiting time before admission does not exceed six weeks. This includes obstetric patients for elective surgical delivery and elective surgical paediatric patients.

If patients who have not attended the Trust for a pre-clerking visit are admitted, they should be screened on admission.

There are locally agreed screening policies in place for dialysis patients in line with recommendations in Saving Lives High Impact Intervention Number 3 - Renal Dialysis Catheter Care bundle (see [Appendix 1](#)).

There are locally agreed arrangements for chemotherapy / oncology / radiotherapy patients based on local epidemiological patterns, in line with the DH MRSA Screening Guidelines 2006 (see [Appendix 2](#)).

There are locally agreed arrangements for the Planned Short Stay Unit (PSSU) which are similar to the above (see [Appendix 3](#)).

Certain patients should be barrier nursed in a side room until screening results are available. These patients are:

- those who are admitted to the Trust and are known to be currently MRSA positive;
- those who have been positive in the past and have not met clearance criteria;
- those with risk factors for carriage of MRSA.

## Infection Control

### Patient Safety Directorate

---

For more information please links in [Appendix 7](#).

If staff are in any doubt about a patient's MRSA status they should contact the Infection Control Nurse (ICN). The ICN;

- has access to current results from both the patient's hospital and community screening specimens and
- can assist staff in making a risk assessment, using the Trust risk assessment for the prioritisation of side rooms tool (see [Appendix 4](#)), to facilitate safe placement of these patients.

The ICNs are available between 0800 – 1700 hrs, Monday - Friday via bleep 152-198 or 151-803. For out of hours advice contact the on-call medical microbiologist via the hospital switchboard.

## 5.2 Sites to be screened

Multi-site MRSA screening swabs should be taken as following:

- Nose, throat and perineum / groin (plus, umbilicus of neonates).
- Any wounds, ulcers, pressure sores and intravenous or dialysis access sites.

The sites should be swabbed using separate sterile swabs in transport medium (black), clearly labelled and sent together in a marsupial transport bag.

If the patient is catheterised, send a catheter specimen of urine (CSU) for culture (in a white top universal container). Ensure that the container is:

- securely closed,
- clearly labelled
- placed in a marsupial specimen bag.

These screening specimens can be ordered on the order communications system (OCS): dependent on the specimen sent, choose:

- MRSA 2 (MRSA multi-site screen) or
- MRSA 1 (MRSA single site screen).

Swabs are available from Microbiology Laboratory, level 6, extension 57034.

## 6 Treatment of MRSA colonisation in hospital inpatients

As standard practice, patients found to be MRSA-positive will be given topical MRSA decolonisation therapy (see [standard MRSA decolonisation therapy](#) below).

MRSA decolonisation therapy will consist of topical antibiotic and antiseptic therapy. Prolonged courses of topical treatment are not recommended because of the risk of developing antibiotic resistance.

Infection with MRSA, rather than just colonisation, should be treated as outlined in the Trust's [antibiotics: a guide to antibiotic therapy in adult](#)

## Infection Control

### Patient Safety Directorate

---

[patients](#) guideline. Systemic antibiotic therapy with agents such as vancomycin may be required.

In most cases, MRSA decolonisation therapy will be commenced immediately the patient is found to be MRSA positive in an attempt to eradicate the organism or, at least, reduce the patient's load of MRSA and therefore reduce the risk of transmission to other patients.

However, in some cases, it may be appropriate to delay MRSA decolonisation therapy until intravenous (IV) lines have been removed and wounds healed. This will increase the chance of successful eradication of MRSA. MRSA decolonisation therapy is normally given for a period of seven days.

Always state start and stop dates on the prescription chart. Pre-printed copies of a prescription chart for MRSA decolonisation therapy are available.

MRSA decolonisation therapy should be considered to be like any prescribed medicines and staff must ensure that the patient's treatment is carried out in an appropriate and timely manner.

All inpatients newly diagnosed with MRSA, or those inpatients who are having surgery will be commenced on the Trust's [MRSA integrated care pathway](#) (ICP).

#### 6.1 Standard MRSA decolonisation therapy

- The advice of a dermatologist may be required for patients with dermatological conditions prior to using the antiseptic treatment.
- If there is any skin irritation or other problem the treatment should be stopped and the ICN or microbiologist contacted. The use of emollients may be useful.
- Bed linen, towels and night wear should be changed daily throughout the treatment period.

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

- Apply three times daily to each nostril, as directed in the the leaflet that accompanies the ointment.
- If mupirocin (Bactroban) topical ointment 2% is used to treat superficial skin infection, it should be prescribed separately on the patient's conventional prescription chart. Do not use on wounds of more than 5cm diameter.
- Mupirocin (Bactroban) should not be used for extended courses (ie more than seven days); repeat courses should be avoided where possible.
- In pregnant patients, naseptin is an alternative to mupiricin (Bactroban).

## **Infection Control**

Patient Safety Directorate

---

### **6.1.2 Aquasept / Triclosan / Octenisan bath concentrate**

Bath: 30 mL.

Shower: 10 mL applied neat and then washed off.

Bed-bath: 3 mL in a bowl of water.

- Using disposable wipes, the skin should be moistened and the solution applied thoroughly to all areas, with particular attention to axillae and groin.
- Shampoo the hair with Aquasept / Triclosan / Octenisan 10ml on days 1 and 4 of the treatment. Ensure hair is rinsed well.

### **6.1.3 C-X Dusting Powder 0.33%**

- Apply to axillae and groin / perineum daily after bath / wash.
- Should not be used on broken skin.
- Caution is also required in neonates.

### **6.1.4 Chlorhexidine dental gel**

- Should be used twice daily as a toothpaste or as a denture cleaner.

## **6.2 Completion of treatment**

- On completion of topical treatment the patient should have clean nightwear, linen and towels / flannels.
- Repeat MRSA screening swabs must be taken 48 hours after completion of treatment, provided the patient is not on any antibiotics (except metronidazole) as this may negate the results.
- Screens should be taken thereafter at weekly intervals for three consecutive weeks whilst the patient is in hospital.

## **6.3 Advice on clearance**

- Three clear screens at weekly intervals must be obtained before the patient may be moved out of an isolation facility and barrier nursing is discontinued. Individual cases should be discussed with the ICN before patients are moved.
- Weekly follow-up screening cultures must be taken if the patient remains in hospital.

## **6.4 Treatment for throat or gut carriage of MRSA**

Rarely, MRSA colonisation of the throat or gut may prevent clearance using topical MRSA decolonisation therapy. Oral systemic antibiotic therapy may be an option in these cases. This should always be discussed with a consultant microbiologist.

## Infection Control

### Patient Safety Directorate

---

One possible regimen consists of oral rifampicin 600mg daily with oral fusidic acid 500mg bd for seven days.

#### 6.5 Treatment of high level mupirocin-resistant MRSA strains

Mupirocin should be replaced with the following products depending on the antibiotic sensitivities.

- If neomycin-sensitive strain use naseptin
- If neomycin-resistant strain use polyfax ointment + fucidin ointment for five days only.

If unsure please contact the ICN for advice (on extension 3497, bleep 152-198 or 151-803).

#### 6.6 Prophylaxis for surgical / invasive procedures

For patients currently MRSA positive, or known to have been positive in the past, intravenous vancomycin may be indicated for perioperative prophylaxis. This is outlined in the Trust's [antibiotics: a guide to antibiotic therapy in adult patients](#) guideline.

The patient should also receive topical MRSA decolonisation therapy pre- and post-operatively to cover the period when the risk of MRSA infection is greatest.

## 7 Hospital procedures for the management of MRSA positive inpatients

### 7.1 Placement and general management

Wherever possible, the ICN will speak to inpatients or their relatives to inform them of their new MRSA status. Additional advice or further discussion may be undertaken as requested by nursing staff, the patient or their relatives. Information leaflets and frequently asked questions (FAQ) sheets are available for patients, relatives and staff. The FAQs are also available to the public via Connect.

All inpatients newly diagnosed with MRSA will be commenced on the Trust's [MRSA integrated care pathway](#).

Wherever possible MRSA positive patients should be nursed in a single room with standard isolation precautions. See IC policy 5: [infection control isolation policy](#).

The door must be closed unless there is a documented reason why this is not possible (eg patient safety). The door should always be closed during procedures that may generate staphylococcal aerosols (eg:

- chest physiotherapy,

## Infection Control

### Patient Safety Directorate

---

- bed-making and
- redressing wounds).

If there are insufficient single rooms available, MRSA-positive patients can be cohort nursed in a bay or part of a ward.

Patients who are thought to be potential heavy MRSA shedders, such as those with exfoliating skin conditions or where there is evidence of transmission to others, should be nursed in single rooms with negative pressure ventilation. Advice will be given by the ICNs. Such rooms are available on:

- Ward D10
- Ward C9
- Intensive Care Unit (ICU)
- Neurosciences Critical Care Unit (NCCU) and
- Paediatric Intensive Care Unit (PICU).

Personal protective equipment and alcohol handrub must be available outside the room.

A barrier nursing sign with a blue disc must be displayed on the door. Disposable yellow plastic aprons and gloves must be worn by **all** staff entering the room who have physical contact with the patient, and/or his/her bedding, excretions or secretions.

Masks must be worn when giving respiratory care if the patient has MRSA in their sputum and for bed-making if the patient has an exfoliating skin condition.

Hand hygiene must be performed in accordance with the Trust's [hand hygiene](#) policy.

Waste, linen and sharps should be disposed of according to the following Trust policies, but no additional special precautions are required:

- [waste disposal](#) policy
- IC policy 3: [safe disposal of sharp objects](#).

Wherever possible the patient should have his/her own dedicated equipment. If this is not possible it should be appropriately decontaminated after use (see IC policy 1: [cleaning and disinfection](#)).

All staff must make every effort to maintain high standards of hygiene and cleaning within the ward to minimise environmental contamination. All rooms or cohort bays where patients are being barrier nursed should be cleaned at least daily with Chlor-Clean / hypochlorite (1,000 ppm) with special attention to areas where dust may collect, such as horizontal surfaces. Domestic staff must wear gloves and aprons when cleaning such rooms / bays.

## Infection Control

### Patient Safety Directorate

---

Staff from other departments (eg physiotherapists, occupational therapists (OTs), who need to enter the room should be instructed on the necessary precautions (minimum apron and gloves) by the patient's named nurse.

Visitors do not need to wear gloves / aprons unless assisting with the patient's physical care. They should always be advised to perform hand hygiene when leaving the room. Correct procedure for doing this should be demonstrated.

When patients are discharged, the bed, furniture, fittings, equipment and any horizontal surfaces in the room or bed space must be disinfected with hypochlorite 1:10 / Chlor-Clean, allowed to dry and then washed with hot water and neutral detergent.

Special cleans of rooms, bays or parts of wards can be arranged with the Central Team (extension 2519) or Medirest out of hours. Please give as much notice as possible if this is required. This should include hydrogen peroxide vapour (HPV) fogging wherever possible.

Curtains may need to be changed and if unsure, please ask advice from the ICN.

Last offices for MRSA positive patients must be carried out using appropriate personal protective equipment (PPE). Any lesions should be covered by an occlusive dressing. Orifices should be packed if leakage is likely. A body bag is not necessary.

## 7.2 Measures for theatres and other departments

If the patient requires surgery, theatres must be informed as soon as possible so that necessary precautions may be taken. Wherever possible the patient should be placed last on the theatre list and recovered in a dedicated area of recovery.

Every effort should be made to eliminate MRSA before surgery, as outlined in the decolonisation section (above). If this is not possible, the patient should commence MRSA decolonisation therapy before and continue this after surgery. If the procedure is one where antibiotic prophylaxis is usually given, perioperative vancomycin prophylaxis may be appropriate, as outlined in the Trust's [antibiotics: a guide to antibiotic therapy in adult patients](#) guideline.

If the patient needs to attend another department for investigations or treatment, the department should be informed as early as possible so the necessary precautions can be taken. The patient should spend as short a time as possible in the department, should not wait in reception areas with other patients, and should preferably be last on the list. Equipment that comes into contact with the patient should be decontaminated with hypochlorite 1:10 or Chlor-Clean tablets appropriately diluted (except

## Infection Control

### Patient Safety Directorate

---

instruments and equipment which will be damaged by the disinfectant eg fibre-optic instruments).

If the patient requires a transfer to another ward / department, the department must be informed of the patient's current MRSA status.

## 8 Treatment of MRSA colonisation for patients who are not current inpatients

Patients who are not current inpatients may be found to be MRSA positive at pre-admission MRSA screening or after a recent contact with the hospital (for example, after day case surgery).

If a patient is found to be MRSA positive the flowchart in [Appendix 6](#) should be followed to ensure that the patient receives MRSA decolonisation therapy and that there is coordination between:

- the clinic / department involved,
- the GP practice,
- the patient and
- the responsible consultant.

For patients found to be MRSA positive at pre-admission screening, apart from giving MRSA decolonisation therapy, further management must take into account:

- the type of intervention planned,
- the potential risk of MRSA infection following that intervention and
- the clinical urgency of the procedure.

## 9 General management issues

An alert notice / special risk sticker will be placed on the front cover of the patient's notes. The form on the first page of these notes will be completed giving the date when the patient first became positive. An alert will be entered on the admission screen of the hospital information support system (HISS) and on electronic medical records (eMR).

Once a patient has been found to be MRSA positive other immediate patient contacts will be screened under the direction of the ICN to determine whether transmission has occurred. The frequency and extent of the screening will be determined by the ICN based on numbers of MRSA positive patients and level of risk. Screening will be undertaken by the ward staff.

When MRSA positive / past positive patients are discharged staff must ensure that the patient or their carer are aware of their current MRSA status and the GP / community nurse should be informed.

### 10 Bed management

Wherever possible, MRSA positive patients will be barrier nursed in single rooms using standard isolation precautions. See IC policy 5: [infection control isolation policy](#).

In exceptional circumstances it may be necessary to transfer MRSA positive patients to single rooms on an alternative ward within the directorate. This should only take place after discussion with the:

- Operations Centre,
- appropriate patient flow coordinator,
- clinical / nursing staff and
- ICT.

Where this is not possible due to lack of appropriate facilities, patients may be cohort nursed together in small bays using standard isolation precautions. Ideally there should be dedicated staff to care for this patient group.

If there is no single room in which to nurse the MRSA positive patient, a bay may be 'closed to admissions' and all patients in the bay nursed with standard precautions. **No new patients should be admitted to this bay while the MRSA patient is still present.**

Due to the numbers of MRSA positive patients within the Medical Directorate it has been agreed that there will be one or more 'MRSA cohort bays' on each level according to need. Wherever possible, these patients should belong to the consultant / team on that ward.

However in some circumstances (eg pressure of admissions), it may be necessary to transfer MRSA positive patients from other wards within the directorate to the 'cohort bay' to alleviate bed management problems.

High risk patients (eg extensive skin lesions, MRSA pneumonia) may require transfer to extract ventilation rooms to minimise the risks of transmission to other patients.

### 11 Management of MRSA outbreaks

In certain outbreak situations it may be necessary to close all or part of a ward if it is thought that reducing workload is the only means left for controlling transmission of MRSA, when the basic infection control measures outlined above have failed. The decision to close will take into account:

- the rate of transmission;
- the number of clinical infections;
- the speciality of the ward / unit;
- the availability of isolation facilities;
- staffing levels / skill mix.

## Infection Control

### Patient Safety Directorate

---

An outbreak for these purposes is defined as MRSA transmission to two or more patients on a unit / ward within a short time period (usually one or two weeks).

The process outlined in the Trust's [generic outbreak](#) protocol must be followed to ensure that appropriate clinical and managerial staff are involved.

The [generic outbreak](#) protocol discusses the need to have outbreak meetings and the decision to re-open the ward.

Ward / bay cleaning prior to reopening can be arranged with the Central Team (extension 2519) or Medirest as required.

When empty, the bay should be thoroughly cleaned, firstly with disinfectant (hypochlorite / Chlor-Clean) and then hot water and detergent. The curtains should be changed. The floor should be vacuumed and mopped and then buffed to leave a high gloss finish. Hydrogen peroxide vapour fogging should be used wherever possible. Once cleaning is completed the room / bay may be used immediately.

If it proves impossible to empty the bay of patients a through clean with hot water and detergent should be undertaken. Floor as above. The need to change curtains should be discussed with the ICN. When it is necessary to change curtains these should be taken down **before** cleaning starts.

## 12 Management of MRSA in intensive care settings

All patients will be screened for MRSA on admission to intensive care and high dependency areas, and weekly thereafter

Patients admitted to John Farman Intensive Care Unit (JFICU) and Neurosciences Critical Care Unit (NCCU) will commence modified topical MRSA decolonisation therapy until results of admission screens are known.

Once a negative screen has been confirmed all patients will continue to be washed daily using Octenisan / equivalent for the duration of their ICU stays to reduce potential skin carriage and minimise transmission of MRSA in skin squames.

If patients are found to be MRSA positive on their admission screen or have been MRSA positive in the past they will receive seven days of full topical treatment.

### **13 Staff screening policy**

#### **13.1 Principles of screening of staff**

Health care workers (HCWs) may come into contact with MRSA as part of their normal day to day work. This emphasises the importance of hand hygiene between patient contact. Prolonged carriage of MRSA is less common and currently regular screening of HCW for MRSA is not thought to be useful.

HCWs will be screened for carriage of MRSA if they work in an area where unexplained transmission of MRSA has been identified and/or there is an increase in the rate of MRSA transmission amongst patients in spite of the introduction of specific infection control measures. This constitutes an 'outbreak' situation.

For more information please see [Appendix 8](#) and [Appendix 9](#).

MRSA rarely causes infection in healthy people. However, as transmission may occasionally occur via close contacts, screening of HCWs sharing accommodation with known MRSA carriers may sometimes be indicated. These cases will be discussed with the IC doctor (ICD) and the Cambridge Centre for Occupational Health (CCOH).

Staff carriage (colonisation) with MRSA is not a reportable infection. Colonised staff who are put off work should be considered medically suspended and not on sick or annual leave<sup>1</sup>.

If a staff member develops an infection, an incident form should be completed and sent to Risk Management so that the incident may be assessed and possibly reported under [Reporting of Injuries, Diseases and Dangerous Occurrences Regulations \(1995\)](#) (RIDDOR) to the Health and Safety Executive. The staff member must have an incident form signed by a doctor or obtain a written statement from a registered practitioner diagnosing the infection. Care and treatment of the HCW is the responsibility of the CCOH, with advice and support from the ICT.

Newly appointed clinical staff who give a history of having been MRSA positive in the past, must be screened as part of the pre-employment protocol. This will consist of a nasal swab and any skin lesions prior to, or within two weeks of, commencing employment. If swabs are indicated on other clinical grounds they should be sent separately.

Transient or short term carriage of MRSA by staff may occur following prolonged close contact with a MRSA positive patient. Therefore staff screening, if required, must be performed at the start of a shift.

The sites screened will include:

- nose,

## Infection Control

### Patient Safety Directorate

---

- throat and
- any skin lesions.

Staff screening in 'outbreak' situations will normally be performed by the ICNs.

### **13.2 Management of MRSA positive staff**

When a HCW has been identified as MRSA positive he or she will be informed by the ICNs or CCOH. If a staff member is unavailable it may be necessary to ask the ward manager to contact the staff member. The staff member should be assured that the information is confidential and only essential personnel will be informed.

All MRSA positive HCW should be seen in CCOH and a repeat full MRSA screen (nose, throat, perineum and any skin lesions) should be taken as soon as possible and before commencing treatment.

Every effort will be made to clear MRSA colonisation in staff. Treatment regimens used are similar to those described for patients (above).

In particular circumstances staff working in high risk areas may be put off work until 48 hours of treatment have been completed. This will only happen after discussion with the staff member themselves, their manager / consultant and the ICD.

Staff with skin lesions may be put off work until results are available, or until lesions are healed, or a negative swab result is obtained. As necessary, staff will be referred to CCOH or the Dermatology / Immunology Clinic.

If continuing to work, skin lesions must be covered by an impermeable dressing.

Staff who are known to be MRSA positive should not work anywhere other than their own unit / ward.

Treatment of staff should be reviewed by the CCOH and the ICD following failure to eradicate MRSA after two courses of treatment.

## Infection Control

Patient Safety Directorate

---

**Table 1. Guidance on treatment and management of MRSA positive staff**

<b>Site positive</b>	<b>Treatment</b>	<b>Discuss with ICD</b>	<b>Off work</b>
Nose only, <b>no</b> skin lesions	Nasal mupirocin (Bactroban) Octenisan / Aquasept bath for seven days	No	Only in special circumstances
Nose only, skin lesions negative	Nasal mupirocin (Bactroban) Octenisan / Aquasept bath for seven days	No	Only in special circumstances
Throat positive, no skin lesions, nose positive or negative	Nasal mupirocin (Bactroban) Octenisan / Aquasept bath for seven days Corsadyl Dental Gel Consider Betadine gargles Consider rifampicin and fucidin Consider referral to ENT specialist	Yes	Moderate or low risk area: <b>no</b>  High risk areas: <b>yes</b>
Perineum positive No skin lesions Nose positive or negative	Nasal mupirocin (Bactroban) Octenisan / Aquasept bath for seven days C-X powder	No	Only in special circumstances
Skin lesions positive	Nasal mupirocin (Bactroban) Octenisan / Aquasept bath Mupirocin topical ointment or equivalent (eg fucidin) Consider oral antibiotics Consider referral to dermatologist	Yes	Moderate or low risk area: discuss with ICD High risk areas: <b>yes</b>

## 14 Contact numbers

Infection control nurses (ICN)      Extension 3497 / 4337 and  
bleeps 152-198 / 151-803

Microbiology Laboratory      Extension 57035

Infection Control Doctor (ICD) Dr Nick Brown      Extension 57075

The ICNs are available from 0800-1700 hours. Out of hours please contact the duty microbiologist via the hospital switchboard.

### 15 Monitoring the effectiveness of the policy

- Ongoing weekly monitoring undertaken by the ICT every Friday of all patients with organisms requiring isolation, this includes patients isolated / cohort nursed for MRSA with monthly audit reported as part of IC key performance indicators (KPIs) to the Addenbrooke's Executive Forum (EF) (previously the Addenbrooke's Executive Board [AEB]).
- Review of compliance with MRSA ICP undertaken as part of Saving Lives three monthly audit and reported Trust-wide.
- Screening compliance in the Emergency Department undertaken by the Infection Control Team and reported monthly as part of the infection control report to the Executive Forum.
- Screening compliance of elective surgical patients undertaken by the ICT and reported to monthly meeting of Surgical Services Infection Prevention & Control Group and Executive Forum.
- Screening compliance of patients admitted to intensive care and high dependency units undertaken by the ICT and reported to monthly meeting of Perioperative Infection Prevention & Control Group.
- Compliance with screening programme in dialysis units undertaken three monthly rotating around the satellite units.
- Selective monitoring of screening of other elective day case admissions to be introduced from April 2009 onwards.
- Screening audits of individual wards / units undertaken on a rolling programme by the Infection Control Team.
- Reporting of MRSA first isolates by ward by month form part of KPI reporting.
- Reporting of numbers of patients screened compared to elective admissions to UNIFY monthly.

## Infection Control

Patient Safety Directorate

---

### References

1. Joint MRSA Working Party (2006) Guidelines for the control and prevention of methicillin-resistant *Staphylococcus aureus* infection in healthcare facilities. *Journal of Hospital Infection*. **63**: Supplement 1
2. DH (July 2008) Gateway Ref 10324 MRSA Screening – Operational Guidance
3. DH (December 2008) Gateway Ref 11123 MRSA Screening – Operational Guidance
4. East of England Strategic Health Authority letter (7 October 2008) MRSA Screening – Operational Guidance

### Equality and diversity statement

This document complies with the Cambridge University Hospitals NHS Foundation Trust service equality and diversity statement.

### Disclaimer

It is **your** responsibility to check against the electronic library that this printed out copy is the most recent issue of this document.

### Document management

<b>Document ratification and history</b>	
Approved by:	Infection Control Committee
Date approved:	November 2007 Amendments made: January 2008 May 2008 August 2008 March 2009
Date placed on electronic library:	August 2008
Submitted for ratification by:	Clinical and Corporate Governance Committee
Date:	November 2007
Review date:	November 2009 (or earlier in the light of new evidence)
Obsolete date:	February 2010
Supersedes which document(s)?	Version 5, August 2008
Author(s):	Infection Control Team
Owning department:	Infection Control
File name:	Policy 14 MRSA_March 2009.doc
Version number:	6
Reference number:	444 / 751

# Appendix 1: Methicillin-resistant *Staphylococcus aureus* (MRSA) screening for dialysis patients

## Introduction

This policy applies to both haemodialysis and peritoneal dialysis patients. It clarifies the policy in relation to the Saving Lives Guidance on Screening for MRSA Colonisation (DH 2007) which states that renal patients:

“should be screened on admission to the programme and then at regular intervals, determined by local practice in the light of national guidance. All patients to be screened prior to the creation of vascular or peritoneal access.”

This guidance should be read in conjunction with the Trust’s infection control policy 14: [Guidelines for the management of MRSA, including screening and decolonisation](#), available on Connect.

Other related documents for care of dialysis patients may be found in:

- Saving Lives High Impact Intervention Number 3 Renal dialysis catheter care bundle and
- High Impact Intervention 1 Central venous catheter care bundle.

## Screening

- Any dialysis patient admitted for an inpatient stay will be screened on admission (as per the section on [categories of patients to be screened](#) in IC policy 14).
- Patients for elective surgical procedures such as placement of Tenckhoff catheters, insertion of dialysis lines, fistula formation should be screened prior to admission as for pre-elective surgical cases.
- All established haemodialysis patients should be screened following an inpatient stay at their first haemodialysis session following discharge.
- All established continuous ambulatory peritoneal dialysis (CAPD) patients with an inpatient stay should be screened on their next routine outpatient attendance.
- Any haemodialysis or CAPD patient who has been treated in another hospital / holiday destination should be screened on their return to the unit or at outpatient follow-up.
- All established haemodialysis patients (whether dialysing via lines or fistulae) should be screened **three monthly** for MRSA at the same time as Hepatitis B and C screening.
- Patients who are found to be MRSA positive will be followed up in line with the section on [Treatment of MRSA colonisation in hospital inpatients](#) in IC policy 14.

## Infection Control

Patient Safety Directorate

---

### Treatment

- Wherever possible, MRSA positive patients should be isolated / cohort nursed with appropriate barrier nursing procedures.
- Positive patients should receive a maximum of two courses of topical MRSA decolonisation therapy only.
- Further topical treatment is only recommended if the patient is to be admitted for a surgical procedure, when the Trust's [MRSA integrated care pathway](#) (ICP) should be obtained from the Infection Control Team and commenced as appropriate.

### **Appendix 2: Methicillin-resistant Staphylococcus aureus (MRSA) screening for haematology / oncology / radiotherapy patients**

#### **Introduction**

This policy clarifies the screening protocol as set out in the Saving Lives Guidance on Screening for MRSA Colonisation (DH 2007) which states that:

“these patients are at particular risk of MRSA bacteraemia because of their immunosuppression and the procedures for vascular access that are an essential part of their treatment.”

Trust screening programmes should be appropriate to the needs of their patient groups.

This guidance should be read in conjunction with the Trust’s infection control policy 14: [Guidelines for the management of MRSA, including screening and decolonisation](#), available on Connect.

Other related documents may be found in Saving Lives High Impact Intervention Number 1 Central venous catheter care bundle and advice on MRSA screening.

#### **Screening**

- Any haematology/oncology patient admitted as an emergency or on an elective basis will be screened on admission (as per the section on [categories of patients to be screened](#) in IC policy 14).
- Patients for elective surgical procedures such as placement of Hickman lines, portacaths etc should be screened prior to admission if possible as for pre-elective surgical cases. If this is not possible they should be screened on day of admission for the procedure.
- Patients seen in the Day Unit should be screened at the start of each new course\* of treatment (\*a course includes a defined number of cycles of treatment , usually lasting 3-6 months).
- If the course of treatment lasts longer than three months the patient should be rescreened after three months.
- Any oncology/haematology patient who has been admitted to any hospital since their last visit should be rescreened on their return to treatment at this Trust.
- Patients undergoing radiotherapy should be screened at the start of a course\* of treatment (\* a course is defined as >5 fractions).
- Patients who are found to be MRSA positive will be followed up in line with the section on [Treatment of MRSA colonisation in hospital inpatients](#) in IC policy 14.

## Infection Control

Patient Safety Directorate

---

### Treatment

- The presence of MRSA is not a contraindication to commencing any type of treatment. Each patient should be risk assessed individually.
- If an outpatient or daily attender is newly diagnosed as MRSA positive a letter will be sent to their consultant and the GP by the Infection Control Team.
- Wherever possible MRSA positive patients should be isolated / cohort nursed with appropriate barrier nursing procedures.
- In a communal treatment area where a side room is not available, a positive patient should be placed in a corner and nursed with universal precautions.
- Positive patients should receive a maximum of two courses of topical MRSA decolonisation therapy only.
- Further topical treatment is only recommended if the patient is to be admitted for a surgical procedure, when the Trust's [MRSA integrated care pathway](#) (ICP) should be obtained from the Infection Control Team and commenced as appropriate.

## Infection Control

Patient Safety Directorate

---

### Appendix 3: MRSA screening for PSSU

#### Introduction

MRSA Screening should be undertaken in line with DH 'Screening for MRSA colonisation – a strategy for NHS Trusts: a summary of best practice (July 2008 and DH Gateway Refs 10324 and 11123)<sup>2,3</sup> and East of England Strategic Health Authority Operational Guidance (7 October 2008)<sup>4</sup>

The DH and SHA guidance states that "microbiological screening must include all elective admissions to an acute trust irrespective of length of stay" (but excluding a few patient categories as listed in Section 6). This should be in place by March 2009. MRSA colonised or infected patients should have effective decontamination and inpatients must be promptly identified and nursed in an appropriate isolation facility eg a side room or cohort bay.

This guidance should be read in conjunction with the the Trust's infection control policy 14: [Guidelines for the management of MRSA, including screening and decolonisation](#), available on Connect.

#### Screening

- Any patient admitted to the unit as an emergency or on an elective basis will be screened on admission (as per the section on [categories of patients to be screened](#) in IC policy 14).
- Patients for procedures such as placement of Hickman lines, portacaths etc should be screened prior to admission for the procedure if possible as for pre-elective surgical cases. If this is not possible they should be screened on day of admission for the procedure.
- Patients seen in PSSU should be screened at the start of each new course of treatment or three monthly whichever is appropriate.
- If the patient is admitted intermittently eg for ascitic drainage, immunoglobulin infusions, they should be screened three monthly.
- Any patient who has been admitted to any hospital since their last visit should be rescreened on their return to treatment at this Trust.
- Patients who are found to be MRSA positive will be followed up in line with the section on [Treatment of MRSA colonisation in hospital inpatients](#) in IC policy 14.
- Arrangements should be in place to ensure regular audit of screening and MRSA decolonisation therapy compliance.

#### Treatment

- The presence of MRSA is not a contraindication to commencing any type of treatment. Each patient should be risk assessed individually.

## Infection Control

### Patient Safety Directorate

---

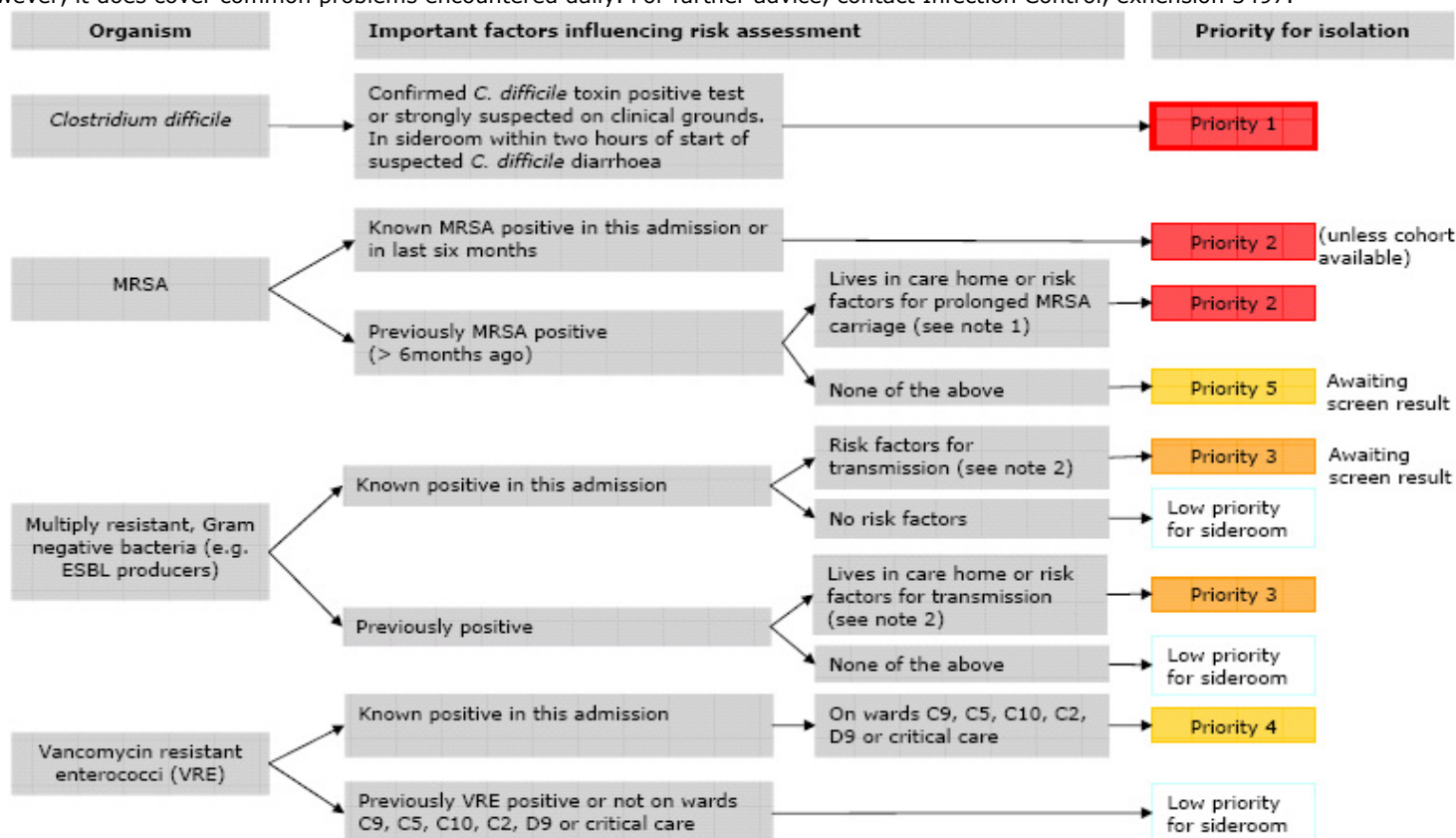
- If an outpatient or daily attender is newly diagnosed as MRSA positive a letter will be sent to the consultant and the GP by the Infection Control Team.
- Wherever possible MRSA positive patients should be isolated / cohort nursed with appropriate barrier nursing procedures.
- In a communal treatment area where a side room is not available, a positive patient should be placed in a corner and nursed with universal precautions.
- Positive patients will receive topical MRSA decolonisation therapy.
- Further topical treatment is only recommended if the patient is to be admitted for a surgical procedure, when the Trust's [MRSA integrated care pathway](#) (ICP) should be obtained from the Infection Control Team and commenced as appropriate.

# Infection Control

## Patient Safety Directorate

### Appendix 4: Risk assessment tool for prioritisation of patients who require isolation

This chart has been produced for wards as an aid to the prioritisation of side rooms for patients with potentially transmissible infections. It does not cover every organism or infection requiring isolation (eg varicella zoster virus, TB, salmonella) and Infection Control Policy No 5 – Isolation Policy or specific organism policies should be consulted for full details. However, it does cover common problems encountered daily. For further advice, contact Infection Control, extension 3497.

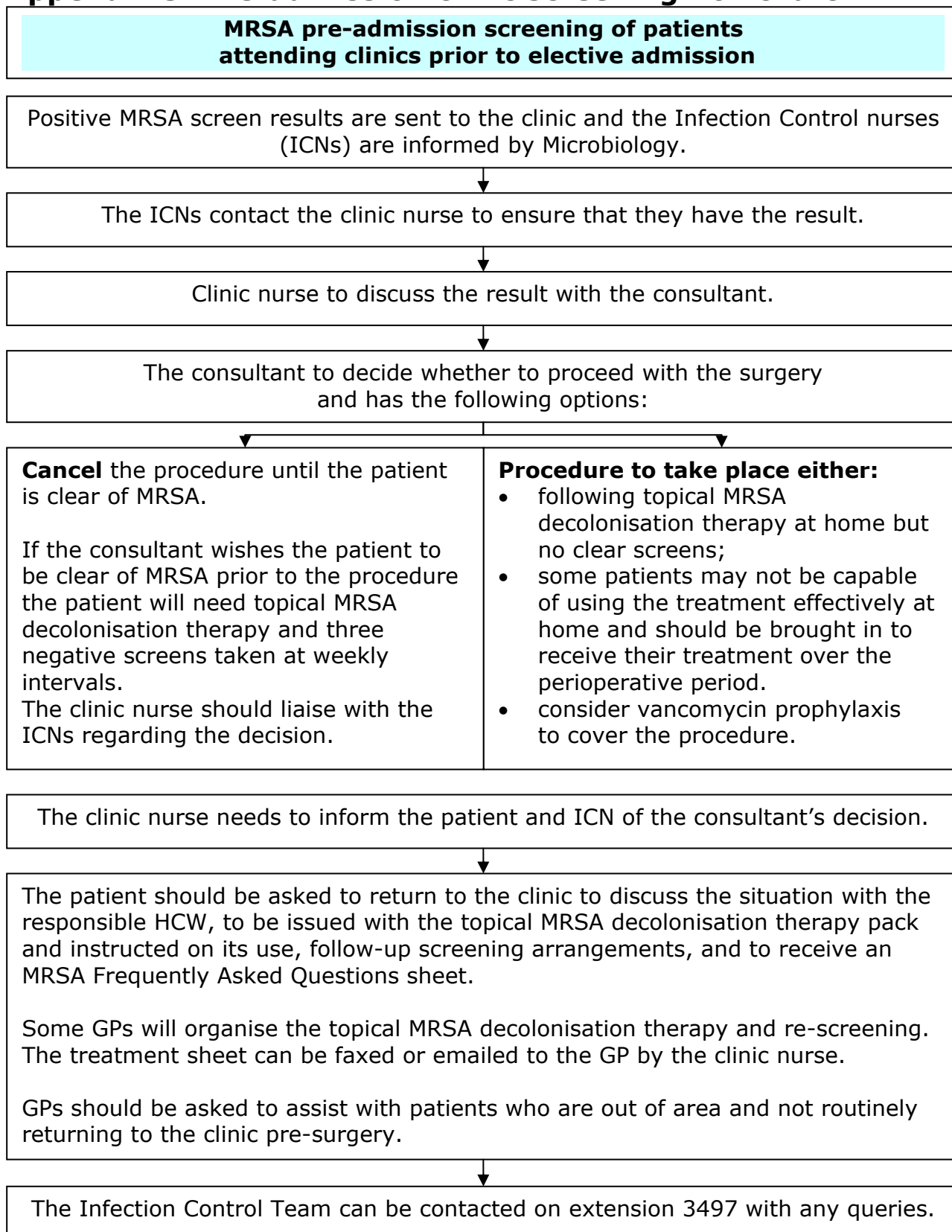


MRSA = methicillin resistant *Staphylococcus aureus*; ESBL = extended spectrum beta-lactamase; TB = tuberculosis

Note 1. Risk factors for prolonged MRSA carriage include: leg ulcers, exfoliative skin conditions, tracheostomy, long term urinary catheterisation

Note 2. Risk factors for transmission of ESBLs include: faecal/urinary incontinence, respiratory tract carriage, open colonised wounds or ulcers

**Appendix 5: Pre-admission clinic screening flowchart**



**Appendix 6: MRSA screening flowchart – day cases and patients discharged to the community**

**MRSA screening and follow-up of patients not attending for pre-elective visits or when the patient has been discharged to the community**

This includes:

- \* those attending outpatient clinics where the time between visit and procedure exceeds six weeks
- \* those admitted for elective day case procedures not previously screened
- \* those who have been telephone screened and have not attended as outpatients.

↓

Admitting nurse checks whether an MRSA screen has been taken within the last six weeks and that the result is negative.

↓

If there is no evidence of a screen being taken then the patient should be screened on admission (nose, throat and perineum).

↓

If the result is positive the Infection Control Team will inform the GP / practice nurse / the patient and the designated lead in the PCT.

↓

The GP / practice nurse will be responsible for seeing the patient, providing the appropriate information, arranging MRSA decolonisation therapy and follow-up screening. ICNs contact the clinic nurse to ensure that they have the result.

### Appendix 7: MRSA information for patients

[PIN1633](#): patient screening information.

[PIN 742](#): information for patients in the community with MRSA.

[PIN312](#): frequently asked questions about MRSA (information for inpatients and their relatives)

## Infection Control

Patient Safety Directorate

---

### Appendix 8: Information letter for staff screening

Infection Control Team

Date

Dear colleague

You may be aware that Ward ..... is currently experiencing a higher than expected number of patients colonised/infected with Meticillin-resistant *Staphylococcus aureus* (MRSA). A number of these patients have acquired MRSA since their admission to hospital and this warrants further investigation.

In line with the Trust's MRSA screening policy the Infection Control Team and Occupational Health are tasked with screening staff who are involved in clinical care of patients in the affected area. You have been identified as working in this area and we request you undergo MRSA screening.

Staff screening involves taking swabs from your nose, throat and any areas of broken skin. Infection control will organise for your swabs to be taken and results forwarded to occupational health. Swabs should be taken **BEFORE** the start of a clinical shift where possible to avoid detecting transient carriage of MRSA.

The results will be made available to the infection control team and occupational health. **If you are found to be MRSA positive you will be contacted by occupational health to provide you with further advice.** To preserve confidentiality the results will not be sent to the ward directly. If you want a copy of your result please contact occupational health one week after the test and a copy of the results will be made available for you to collect.

We request that you provide a preferred contact telephone number for the occupational health nurse to use to contact you if you are identified as being MRSA positive. It is also important to identify if an answer phone message can be left on a home or mobile telephone number if there is no answer to avoid delay in contacting you. Please complete the form overleaf so we know how to contact you.

On attending Occupational Health a full screen will be performed (nose, throat, perineum and any skin lesions) and further advice on treatment provided. Dependent on the work area work restrictions may be considered. Work restrictions will only be implemented after discussion with you, an Occupational Health Advisor and Infection Control.

Many thanks for your assistance in this screening requirement. If you have any questions or queries about this process please contact occupational health or infection control for further advice.

Yours faithfully

Cheryl Trundle  
Infection Control

Dr Geraldine Martell  
Consultant in Occupational health

## **Infection Control**

Patient Safety Directorate

---

### **Appendix 8a:**

#### **Staff MRSA screening record and contact details**

**Name:**

**DOB:**

**Job Title:**

**Dept/Ward:**

Date Screened:

If you are found to be MRSA positive please indicate below how you wish the results to be communicated plus contact details

Preferred Telephone Number :

This is a

Home Number

Mobile

Work Number

(please circle)

OH can leave answer phone message if no answer

Yes/No

I agree to undergo MRSA screening and am aware that occupational health will contact me with the results if I am identified as being MRSA positive

**Signed:**

**Date:**

---

**Infection Control Nurse Taking Swab** \_\_\_\_\_

**Signed:**

**Date of Swab:**

Please forward to Occupational Health Box 172

### **Appendix 9:**

#### **MRSA screening of staff: frequently asked questions**

As part of the Trust measures to reduce MRSA we are improving our adherence with the MRSA management policy (Infection Control policy 14) which may result in an increase in staff MRSA screening. The information below is designed to answer staff questions about the policy.

##### **Why are we increasing MRSA screening of staff?**

As more data on MRSA colonisation in patients has become available, it has been recognised that there can be increased incidences when staff screening is indicated. Staff screening is required if transmission continues on a ward despite active control measures, if epidemiological aspects of an outbreak are unusual, or if they suggest persistent MRSA carriage by staff.

##### **What are the changes?**

Staff screening for MRSA will be requested in areas where there are unexplained increases in patient MRSA rates in excess of what would be expected. In these circumstances the Infection Control Team will advise if staff screening is necessary.

##### **Who will be screened?**

Staff members will be asked to have screening performed if they have worked in the clinical area where the increase in patient MRSA rates has occurred within 48 hours prior to the identification.

##### **How will I receive the results?**

When you undergo screening you will be asked to provide preferred contact details to receive the results. You will be contacted by a member of the Occupational Health Team by phone if the result is positive and they will organise to see you in Occupational Health as soon as is practicable. If the result is negative you will not routinely be telephoned.

##### **What does it mean if my MRSA test result is positive?**

If the test is positive you may be carrying MRSA; MRSA decolonisation therapy may be required. This will be prescribed by Occupational Health following an appointment at the Occupational Health Department.

##### **How will this affect my work?**

No work restrictions are routinely implemented however in certain circumstances they may be necessary, eg infected skin lesions. You will be seen and advised by an Occupational Health physician if extended work restrictions are considered necessary. The decision on work restrictions will be made by Occupational Health in consultation with Infection Control. In particular circumstances, staff working in high risk areas may be put off work until 48 hours of treatment have been completed. Staff with skin lesions may be put off work until results are available, or until lesions are healed, or a negative swab is obtained. As necessary, staff will be referred to Dermatology.

##### **Will I pay for my treatments?**

No. Any treatment prescribed by Occupational Health for staff colonisation of MRSA will be provided free of charge to all staff members.