**Title:** Methicillin Resistant Staphylococcus Aureus (MRSA) and Methicillin Sensitive Staphylococcus Aureus (MSSA) Screening and Infection Control Management Policy.

(Key Words: MRSA, MSSA, Infection, Screening)

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**Applies to:** All clinical staff  
**Exclusions:** None

**Purpose:** To set out the current procedures at T&SFT for screening patients for MRSA and MSSA and the decolonisation and infection control precautions required

**VERSION CONTROL** - This document can only be considered current when viewed via the Policies and Guidance database via the Trust intranet. If this document is printed or saved to another location, you are advised to check that the version you use remains current and valid, with reference to the active date.

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**Key Points**

- All relevant emergency inpatient admissions will be screened for Methicillin Resistant Staphylococcus Aureus (MRSA) on admission.

- Orthopaedic and Vascular Elective patients will be screened for MRSA prior to admission. Other elective patients who are due to go to Hestercombe ward (e.g. gynaecological patients) or those with risk factors for MRSA will also be screened prior to admission.

- Patients undergoing certain high risk surgical procedures will also be screened for Methicillin Sensitive Staphylococcus Aureus (MSSA) as part of their pre-operative assessment.

- Patients in high risk areas (ITU/HDU/SNICU) will be screened for MRSA on admission to the unit and at weekly intervals.

- Emergency admissions found to have MRSA will receive decolonisation treatment and be nursed in source isolation until 3 negative MRSA screens are obtained.

- Elective patients found to have MRSA prior to admission for low risk surgical procedures will receive 5 days decolonisation treatment immediately prior to their procedure and be nursed in source isolation when in hospital until 3 negative MRSA screens are obtained.
Elective patients found to have MRSA prior to certain high risk surgical procedures will receive decolonisation treatment and subsequent screening prior to their procedure. A further 5 day course of decolonisation will be given immediately prior to surgery, regardless of whether negative screens have been obtained.

High risk elective patients found to have MSSA will have a 5 days decolonisation treatment immediately prior to their procedure.
Musgrove Park Hospital is part of Taunton and Somerset NHS Foundation Trust

Flow Chart 1
MRSA Screening and Management - Emergency Admissions

Who should be screened?

On Admission

- Neonates SNICU
  - 48 hours after delivery or transfer from another hospital, and then weekly

- MRSA Screen Nose and Umbilicus
  - MRSA Negative
    - Continue to screen weekly
  - MRSA Positive
    - Isolate patient
    - Octenisan and Bactroban nasal ointment for 5 days
    - 2 days rest
    - Rescreen x 3 at weekly intervals

- MRSA screen negative x 3 wkly screens

Who should be screened?

- Emergency paediatrics admission with one of the following risk factors for MRSA
  - Previous MRSA
  - Inpatient in last 6 months
  - Resident in Nursing Home
  - Dialysis patient
  - Has chronic wound or long term invasive device in situ

- Emergency adult admissions (Excluding maternity)
  - Transfer to ITU / HDU then weekly

- MRSA Screen from Nose / Wounds / Sputum / Groin / CSU
  - MRSA Positive
    - Isolate patient
    - Chlorhexidine 4% body wash and Bactroban nasal ointment for 5 days
    - 2 days rest
    - Rescreen x 3 at weekly intervals

- MRSA Negative x 3 wkly screens

Who should be screened?

- MRSA Positive
  - 2nd course of decolonisation
  - Rescreen x 3 at weekly intervals

- MRSA negative x 3 wkly screens

Who should be screened?

- MRSA Positive
  - Discuss with IP&C Team

Who should be screened?

- Out of Isolation
  - If SNICU or ITU – continue to screen weekly

During Inpatient Stay or Treatment

- No further action
**Orthopaedic / Vascular and Spinal Patients**

- Where prosthetic material is being inserted / or pacemaker insertion

**Screen for MRSA and MSSA**

- Screen from Nose / Groin / Wounds / CSU / Sputum if productive cough

**One set of swabs only required. Request MSSA and MRSA**

<table>
<thead>
<tr>
<th>MRSA / MSSA Negative</th>
<th>MSSA Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRSA Positive</td>
<td>No further action</td>
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</table>

**Yes**

- 5 days decol to start as soon as result known.
- 2 days rest
- Rescreen x 3 at weekly intervals

<table>
<thead>
<tr>
<th>MRSA Negative</th>
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</thead>
</table>

**No**

- 2nd course of decolonisation
- Rescreen x 3 at weekly intervals

**MRSA Positive**

- 5 days decol to start 5 days prior to admission.
- Prophylaxis in line with Antibiotic guidelines for MRSA

**MRSA Negative or Positive**

Elective patients with one or more of the following risk factors for MRSA
- Previous MRSA
- Inpatient in last 6 months
- Resident in Nursing Home
- Dialysis patient
- Has chronic wound or long term invasive device in situ

**Screen for MRSA**

- Screen from Nose / Groin / Wounds / CSU / Sputum if productive cough

**MRSA Positive**

- 5 days decolonisation course to start 5 days prior to admission
- Isolate on admission
- Prophylaxis in line with Antibiotic guidelines for MRSA

**MRSA Negative**

**Non-Orthopaedic or Vascular elective patients**

Screen not required unless patient has risk factor for MRSA or is due to be admitted to Hestercombe

**Flow Chart 2**

**MRSA Screening Criteria and Management for Elective Admissions**

Musgrove Park Hospital is part of Taunton and Somerset NHS Foundation Trust
Flow Chart 3
Procedure for Isolation of MRSA Positive Patients

MRSA Positive Patient (Inpatient)

Yes

Single Side room Available on current ward?

Source Isolation until 3 negative screens

No

Risk assess whether SRs can be vacated on current ward. (Side Room priority tool can be used / advice from IP&C Team)

Yes

Single Side room can be made available on current ward

No

Check with medical team that clinically appropriate to transfer

Yes

Contact patient flow to request SR on a clinically appropriate ward

No

Side Room available?

Yes

Arrange transfer of patient and inform accepting ward of MRSA status

No

Complete incident form.

- Nurse patient in Bay with strict IP&C precautions.
- Document in notes, the reason for non-isolation.
- Source isolation at earliest opportunity
- Inform matron that unable to isolate the patient
1 Introduction and Aim

*Staphylococcus aureus* is a gram positive bacterium carried harmlessly in the nose of approximately a third of the population. In healthcare settings, where patients are often undergoing invasive procedures it can cause serious illness including wound, respiratory and blood stream infections. MRSA is a strain of *Staphylococcus aureus* that is resistant to many antibiotics and therefore is a greater risk to patients as infections will be harder to treat.

Contact transmission via contaminated hands is the main route of spread for MRSA in healthcare settings. Contamination of the environment may also result in transmission of MRSA (e.g. in dust or via inadequately decontaminated equipment).

The aim of this policy is to set out which groups of patients should be screened for MRSA and the actions to be taken to help prevent the spread of MRSA in hospital. In addition, it advises on which groups of patients should be screened for MSSA and the actions to be taken if found to be colonised.

2 Definition of Terms

- **Methicillin Resistant *Staphylococcus aureus* (MRSA)** –
  A strain of *Staphylococcus aureus* that is resistant to Flucloxacillin and other antibiotics commonly used to treat infections.

- **Methicillin Sensitive *Staphylococcus aureus* (MSSA)** –
  A strain of *Staphylococcus aureus* that is sensitive to Flucloxacillin

- **Colonisation with MRSA / MSSA** – When MRSA / MSSA is present on humans and not causing symptoms of infection an individual is regarded as colonised.

- **Infection with MRSA / MSSA** – Infections can occur if MRSA / MSSA gains access to tissues beneath the skin or mucosa.

- **Screening** – This is the testing of patients for the presence of MRSA / MSSA on the most common body sites it is known to colonise.

- **High Risk Elective procedures** – Patients undergoing vascular grafting or orthopaedic implant surgery

- **Transient Carriage of MRSA** – When MRSA is carried on the skin such as on the face, hands, arms, inside the nose for a short period of time.
3 Duties and Responsibilities

3.1 Director of Infection Prevention and Control (DIPC)

Is responsible for:

- Providing assurance to the Trust Board and other appropriate bodies that MRSA screening and measures to reduce the risk of MRSA / MSSA infection are being implemented as per Department of Health (DH) guidance.
- Ensuring that any shortfalls in the implementation of this policy are identified and remedial actions have been put in place.
- Ensuring that a multidisciplinary Post Infection Review is conducted within 7 days of a trust apportioned MRSA bloodstream infection and reported on the Data Capture System hosted by Public Health England.

3.2 Infection Prevention and Control Team

Are responsible for:

- Advising and training clinical staff on the screening process for MRSA as required.
- Advising and training clinical staff on the care and management of patients with MRSA.
- Surveillance of all MRSA isolates via ICNet and follow up of inpatients to ensure appropriate infection control precautions have been put in place.
- Marking patient notes on the hospital patient computer management system identifying their MRSA status.
- Reporting the monthly MRSA screening compliance rates (provided monthly to the IP&CT by the IT department) and rates of MRSA / MSSA bloodstream infection to the relevant committees as part of the IP&C Metrics.
- Mandatory reporting of MRSA and MSSA bloodstream infection to Public Health England
- Identification of potential MRSA outbreaks and supporting relevant areas to put appropriate actions in place
- Liaising with Occupational Health (SERCO) as appropriate when MRSA is detected in staff.

3.3 Matrons

Are responsible for:
- Leading on the investigation of Trust apportioned MRSA and MSSA blood stream infections occurring in their area and ensuring appropriate learning is disseminated and remedial actions and are put in place.

3.4 **Ward and Department Managers**

Are responsible for:

- Ensuring staff in their area understand and implement the screening practices outlined in this policy.
- Ensuring staff in their area understand and implement the care and management of patients with MRSA as outlined in this policy.
- Instigating remedial action to address any issues around screening compliance or management of patients with MRSA in their area.

3.5 **All Clinical Staff**

Are responsible for:

- Complying with all aspects of this policy relevant to their area of practice.
- Ensuring that patients are screened as required and results checked.
- Ensuring that the infection control management for patients with MRSA set out in this policy is followed.

3.6 **Outpatient Clinic Staff**

Are responsible for:

- Screening elective patients listed for surgery who do not require a pre-operative assessment appointment.

3.7 **Pre-Operative Assessment Clinic Staff (including Cardiology)**

Are responsible for:

- Taking and checking the results of relevant pre-admission screens.
- Liaising across organisational boundaries e.g. GP’s / practice nurses to ensure treatment and follow up screens are instigated as appropriate.

4 **Who should be screened for MRSA?**

4.1 **Adult Patients**

- **Emergency Admissions (including transfers from other healthcare providers)**
All emergency adult inpatient admissions (excluding maternity) will be screened as soon as practicable on admission, but this must be on the day or day after admission.

Maternity admissions are not regarded as emergency admissions and do not need to be screened, unless transferred from another healthcare facility.

- **Elective Admissions (including day cases)**
  All Orthopaedic and Vascular elective surgical admissions and patients admitted for insertion of a permanent pacemaker will be screened for MRSA prior to admission.
  Other elective admission who require screening are
  - Patients booked to go to Hestercombe ward
  - Patients known to have been infected or colonised with MRSA in the past
  - Patients who are resident in a Nursing Home
  - Patients who have been a hospital inpatient in the previous 6 months
  - Dialysis patients
  - Patients with chronic wounds or long term invasive devices
  The screen will be taken when the patient attends for their pre-operative assessment appointment. Any relevant patients due to have elective surgery, who do not attend the preoperative assessment clinic will be screened when the decision to admit is made at any of the outpatient clinics.

- **Chemotherapy**
  Adult chemotherapy patients attending for treatment should be screened at the beginning of the chemotherapy programme.

4.2 **Paediatric Admissions (Excluding Neonates)**

- **Emergency and Elective Admissions**
  Paediatric admissions are excluded from routine screening unless they fulfil any of the following criteria in which case they should be screened as soon as practicable on admission or prior to admission if an elective case
  - Are known to have been infected or colonised with MRSA in the past.
  - Have been a hospital inpatient in the previous 6 months
- Are currently resident in a long term care facilities
- Dialysis patents
- Have chronic wounds or a long term invasive device in situ.
- Orthopaedic or Vascular Elective Patients

- **Chemotherapy**

  Paediatric chemotherapy patients only require screening if they meet the risk criteria outlined in section 4.2, and should be screened at the beginning of their chemotherapy programme.

4.4 **Neonates**

All neonates admitted to SNICU will be screened 48 hours after delivery, or on transfer from another hospital if older than 48 hours, and then at weekly intervals.

4.5 **Beacon Day Unit Patients**

Beacon Day Unit patients should be screened at the beginning of their treatment programme.

4.6 **ITU / HDU**

All patients admitted to ITU or HDU should be screened on admission to the unit and then at weekly intervals.

5 **Who should be screened for MSSA?**

In addition to being screened for MRSA, patients undergoing certain high risk procedures should also be screened for MSSA. These include

- Major joint replacements (Total hip, knee, elbow, shoulder and ankle replacements).
- Spinal surgery requiring insertion of metalwork.
- Vascular graft surgery.
- Insertion of Permanent Pacemaker.

Separate samples for MRSA and MSSA are not required; request MSSA screen, as well as MRSA, when sending the swabs to the laboratory.

6 **What sites should be screened?**

6.1 **MRSA Screens**
MRSA screening (and MSSA where required) includes swabs from all the following sites:

- **Nose** – one side only from the anterior nares.
- **Groin** – one side only.
- **All broken areas of skin / wounds** e.g. surgical, chronic, PEG sites, tracheostomy sites etc.
- **Catheter specimen urine (CSU)** – only if indwelling catheter present.
- **Sputum** – only if productive cough present.

### 6.2 Neonates

Neonates should have MRSA swabs taken from:

- **Nose**
- **Umbilicus**

### 7 Procedure for Screening

#### 7.1 When swabs are taken from dry parts of the body (e.g. the groin), the swab must be moistened prior to sampling using the swab medium, sterile water or sterile saline. Swabs taken from wounds with high levels of exudate do not need to be moistened first.

#### 7.2 The following steps should be taken when obtaining a swab:

- Decontaminate hands immediately before swabbing.
- Moisten swabs if necessary.
- Rub and rotate the swab firmly on each area.
- For nasal swabs only swab 1 nostril. It is not necessary to enter the anterior nares (nostril) more than 1 cm.
- Place swab in the medium tube and label.
- Request appropriate screen via the 'Order Comms' system.
8 Management of Inpatients with MRSA

8.1 Isolation of MRSA Positive Patients

- MRSA positive patients should be moved to a side room and nursed in source isolation. See Isolation Policy which can be found on the Infection Control Policy Webpage. If the patient cannot be isolated due to a lack of side rooms on their current ward the availability of side rooms on other wards should be investigated. If other side rooms are available, the patient should be transferred providing it is clinically appropriate to do so. Input from the patient’s medical team and patient flow will be required.

- Patients likely to present a greater risk of spreading MRSA must take priority for a side room i.e. sputum positive patients with a productive cough, patients with skin conditions such as psoriasis. Staff may use the Side Room priority tool for guidance on prioritising patients for isolation. The most up to date version can be found on the Infection Control Policy Webpage under Other IC Policies and Guidance

- If an MRSA patient cannot be isolated, and has to be nursed in a bay, strict standard infection control precautions (including the use of screens if available) must be observed and a Trust incident form completed.

- High Risk Areas - In some areas MRSA poses a very serious risk of infection.
  - ITU / HDU
  - Orthopaedics
  - Somerset Neonatal Unit

Patients identified with MRSA in these areas must be isolated from others.

8.2 MRSA Decolonisation and Treatment

- If a clinical infection is suspected the medical staff should discuss systemic treatment options with a Consultant Microbiologist.

- A 5 day course of Topical decolonisation treatment must be commenced:
  - Mupirocin (Bactroban) 2% Nasal Ointment x 3 daily to nostrils
  - Chlorhexidine 4% (or Octenisan in neonates) x 1 daily wash. Include at least 1 hair wash within the 5 day treatment course. Use as a liquid soap – do not dilute in water.

The IP&C team will advise if an alternative nasal ointment or skin cleanser is required.

- If a patient is MRSA positive in their urine and has a urinary catheter in situ, a 5 day oral course of an antibiotic to which the MRSA is known to be sensitive (e.g. Doxycycline) should be included as part of the decolonisation treatment. This should
be started at the same time as the topical skin treatment. **On day 3 or 4 of the antibiotic treatment the urinary catheter should be removed and replaced.**

- If a patient has a chronic wound (e.g. leg ulcer) which is critically colonised with MRSA, the Topical Antimicrobial Wound Dressing Protocol for Adult Inpatient Wounds Critically Colonised or Infected with Methicillin Resistant *Staphylococcus aureus* (MRSA) should be followed which can be found on the Policy database on the Trust Intranet. In addition, if the organism is sensitive to Tetracycline, a 5 day oral course of Doxycycline should be included as part of the decolonisation treatment. This should be started at the same time as the topical skin treatment. *(Please contact the Consultant Medical Microbiologist if the patient has resistance / allergy to Doxycycline).* However, it may be beneficial to delay the commencement of decolonisation treatment until the wound has undergone significant healing. The optimal time for commencement of decolonisation therapy should be assessed by the Infection Control Team on a case by case basis in liaison with the relevant clinical staff. If decolonisation treatment is delayed an antiseptic body wash (e.g. Chlorhexidine 4%) should continue during this time.

- Two days after completion of decolonisation treatment the patient should be re-screened for MRSA x 3 at weekly intervals to determine if the MRSA has been successfully eradicated. If any of these screens are positive a further course of decolonisation treatment should be carried out (as previously described), followed by a further 3 x screens. **If the post-decolonisation urine / chronic wound is positive then the protocol should also include a second course of Doxycycline.** If the second course of decolonisation treatment is unsuccessful the IP&C Team must be contacted to discuss further options. Subsequent courses of Doxycycline should only be given after discussion with the microbiologist.s

- Decolonisation therapy must be prescribed and staff must record decolonisation using the inpatient MRSA prescription chart available to order via EROS, code WZK2409.
9 Management of Patients with MRSA / MSSA Prior to Admission for an Elective Procedure

Prior to a planned surgical procedure efforts must be made to minimise the risk of infection through topical and systemic decolonisation and prophylactic antimicrobial therapy as appropriate:

- **High Risk Surgical Procedures MRSA** - Patients due to undergo vascular grafting or orthopaedic implant surgery who are found to be MRSA positive should complete a 5 day course of topical decolonisation treatment as soon as possible after the result is known. This is managed by the relevant POAC in liaison with the GP. Following completion of the course the patient should be re-screened x 3 for MRSA. If all the results are negative no further screens are required. If the result is positive a second course of decolonisation should be given and the patient rescreened x 3 again after completion. If the patient remains positive after 2nd course of decolonisation treatment no further attempts at that time should be made to eradicate the MRSA until 5 days prior to admission.

- **All MRSA positive patients undergoing a high risk surgical procedure, regardless of whether or not they have had negative screens following decolonisation treatment, should then have a further 5 days of topical decolonisation therapy immediately before their date of surgery. This is because there is always a risk that they may have become re-colonised prior to admission. Surgical antibiotic prophylaxis should be given in line with the MRSA prophylactic antibiotic guidelines.**

- **Pacemaker Insertion – MRSA** - Patients due to have a pacemaker insertion who are found to be MRSA positive should be given 5 days of topical decolonisation therapy immediately before their date of surgery. This is completed at home and is managed by the Cardiology Pre-Operative Assessment Clinic (POAC) in liaison with the GP. Surgical antibiotic prophylaxis should be given in line with the prophylactic antibiotic guidelines.

- **High Risk Surgical Procedures and Pacemaker Insertion - MSSA** - Patients found to be MSSA positive should be given 5 days of topical decolonisation therapy immediately before their date of the procedure. This is completed at home and is managed by the relevant Pre-Operative Assessment Clinic (POAC) in liaison with the GP. Surgical antibiotic prophylaxis should be given in line with the prophylactic antibiotic guidelines.

- **Surgical Procedures not classed as high risk** - Patients undergoing other surgical procedures not classed as high risk, found to be MRSA positive should be given 5 days of topical decolonisation therapy immediately before their date of surgery. This
is completed at home and is managed by the Pre-Operative Assessment Clinic (POAC) in liaison with the GP. Surgical antibiotic prophylaxis should be given in line with the prophylactic antibiotic guidelines.

10 Patient Information

Three patient information leaflets relating to MRSA are available to download from the Trust intranet or can be ordered from Medical Photography, these leaflets are titled:

- MRSA – general information on MRSA
- Pre-Admission Screening for MRSA – (information for elective patients)
- Pre-Admission Screening for MRSA and MSSA Screening (information for elective patients)

Further advice for patients on MRSA can be accessed from the Infection Prevention and Control team.

11 MRSA in Staff

- Transmission of MRSA can occur from patient to staff to patient via close contact. Carriage is usually transient, in that by the time staff return to work after a previous shift, they no longer carry MRSA.

- Routine staff screening is not recommended but may occur as part of an outbreak investigation or at the discretion of the Infection Prevention and Control team (IP&C). Screening of staff as part of an investigation into an outbreak will be co-ordinated via the Occupational Health Department (SERCO) in liaison with the ward manager and the IP&CT.

- Screens for staff should be taken at the beginning of their shift to avoid detecting transient carriage.

- Decolonisation therapy for MRSA positive staff and subsequent rescreening is the same as for patients. (i.e. two days after completion of treatment re-screen x 3 at weekly intervals. If any of these screens are positive a further course of decolonisation treatment should be carried out, followed by a further 3 x screens).

- Only staff members with colonised or infected hand lesions should be off work while receiving decolonisation treatment. However, staff working in high risk areas such as ITU / HDU, SNICU and theatres, represent a greater potential risk to patients and such cases should be discussed with the Infection Control Team, in liaison with Occupational Health (SERCO).
• There is no reason to exclude pregnant or breast-feeding staff from caring for patients with MRSA.

12 Action to be taken on Identification of MRSA Blood Stream Infection

• The identification of an MRSA blood stream infection (BSI) is a significant event. The Consultant Microbiologist will liaise directly with the patient’s clinical team advising on the best course of treatment.

• On identification and confirmation of an MRSA BSI it is the responsibility of the organisation from which the sample originated to ensure that the full mandatory data set is recorded on the Data Capture System (DCS) hosted by Public Health England (PHE).

• A Post Infection Review (PIR) must be carried out in order to identify how the case occurred and identify actions to prevent similar cases occurring in the future. If an MRSA BSI sample was taken from the patient on or after the third day of the admission to an acute trust, the acute trust will be required to lead the PIR. For all other MRSA BSI cases the Clinical Commissioning Group (CCG) responsible for the patient will be required to lead the PIR. The DCS will notify the appropriate organisation that they are responsible for co-ordinating the PIR.

• The patient (and / or family) should be notified of the infection by the clinical team looking after the patient and that a PIR will be undertaken to understand why the infection occurred.

• The PIR should be conducted by a multidisciplinary team and involves partnership working by all organisations involved in the patient’s care pathway. The toolkit in Appendix A should be used for carrying out the review. The review should be completed within one week of notification from the DCS.

• The outcome of the PIR should establish the organisation to which the BSI should be finally assigned and this should be logged on the DCS within seven days of the initial assigning.

• The DIPC is responsible for ensuring the recording of the outcome of the PIR on the DCS and ensuring that the PIR review process is followed. If the duly assigned organisation is the same as the organisation leading the PIR this will end the process of recording the data on the DCS. If the assigned organisation is different from the organisation leading the PIR, the system will notify the duly assigned organisation and they will need to indicate on the DCS that they agree with the outcome of the PIR.
If agreement on assignment of the case cannot be reached, the Director of Public Health of the local authority responsible for the CCG of the patient will be informed and will lead a review to assess the evidence presented in the PIR, who will decide on the final assigning of the case.

- Learning from the PIR and actions instigated should be shared throughout the relevant areas of the organisation and with the patient and family where appropriate.

### 13 Action to be taken on Identification of an MSSA Blood Stream Infection

- The Consultant Microbiologist will liaise directly with the patient's clinical team advising on the best course of treatment.
- All MSSA blood stream infections must be reported on the DCS hosted by PHE. This will be done by the IP&CT.
- A root cause analysis should be carried out for all trust apportioned MSSA Blood stream infections. The Matron where the blood stream infection occurred is responsible for carrying out the investigation and instigating appropriate actions.

### 14 Audit and Compliance Monitoring

- Monthly auditing of MRSA screening compliance for Emergency and Elective screening will be carried out by the Trust Informatics department, and reported trust wide by the IP&C team as part of the monthly IP&C Metrics.
- Audit of MRSA Management will be undertaken by the Infection Prevention and Control Team as part of their Annual Programme of Work and reported to the Infection Control Committee.
- Where the level of performance is considered by the Infection Prevention and Control Committee to be unacceptable, the Chair will nominate a group member to oversee development of corrective actions. These actions should be incorporated into the Governance Action Plan at Directorate level as appropriate.

### 15 Review

This policy will be reviewed in 3 years or sooner if there are any major changes to practice.
16 References


MRSA Screening – Operational Guidance – Department of Health 31 July 2008


MRSA Screening – Operational Guidance 3 – Department of Health – 31 March 2010

Guidance on the reporting and monitoring arrangements and post infection review process for MRSA bloodstream infection. NHS Commissioning Board. April 2013
**Appendix A**

**MRSA Blood Stream Infection**

**Post Infection Review Toolkit**

The purpose of this toolkit is to help staff conduct their post infection review in the case of an MRSA bloodstream infection*. Some sections may be more relevant than others, and staff are encouraged to exercise their discretion/clinical judgement in completing the form.

<table>
<thead>
<tr>
<th>Organisation</th>
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<tr>
<th>Site/Location where the specimen was taken</th>
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<th>Ward/area</th>
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<table>
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<tr>
<th>Nature of incident*</th>
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<tr>
<th>Date of incident</th>
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* NOTE: Contaminants should continue to be reported as part of the mandatory reporting on the Data Capture System (DCS). Do not complete the full PIR for cases of contamination where there is clear evidence this is not a true MRSA bacteraemia. In such cases, the PIR process is not appropriate, but separate locally agreed procedures should be used to identify and address any issues that arise from the contamination (for example, if the patient was then subsequently inappropriately prescribed antibiotics). If the contaminated specimen was taken in an acute trust, it must be assigned to that trust. In all other cases, it must be assigned to the Clinical Commissioning Group (CCG). The summary information must be completed indicating an agreed contaminant.

1. Write a brief narrative of the incident, including likely source and any underlying clinical, social or behavioural factors of the patient, patient management, outcome.

A. **CASE DETAILS**

1. **DCS Case number/reference**

1.1 Name of patient (this information can only be accessed locally)

1.2 Date of Birth (DOB)  

1.3 Sex

1.4 Date specimen was taken

1.5 Location where the specimen was taken

---

*This number is a unique case identifier that the DCS gives to every case of MRSA bloodstream infection input.*
2. **Please supply a ‘timeline’ for patient movement over the last 2 weeks** (e.g. admission and discharge dates for inpatient stays, Outpatient or A&E attendances, GP attendances, attendances for dialysis or other therapy).

3. **Contact with:**
   - Nursing/residential care/sheltered housing? If so, for how long?
   - Contact with respite care? If so, for how long?
   - Continence clinic? If so, for how long?
   - Podiatry/leg ulcer/diabetic foot clinic? If so, for how long?
   - Other organisation relevant to the case If so, for how long

4. **Any medical conditions relevant to this case of MRSA bloodstream infection?**

5. **Other relevant co-morbidities**

6. **Likely outcome from this episode prior to the patient being infected with an MRSA BSI?**

**B. SCREENING FOR INFECTION/COLONISATION**

7. For admitted patients, and in line with national MRSA screening guidance and your local protocols, was the patient eligible to be screened for MRSA colonisation prior to, on or during admission?
   SELECT YES/NO

8. If so, were they screened?
   SELECT YES/NO

9. If yes, and the patient tested positive for MRSA colonisation, was decolonisation prescribed?
   SELECT YES/NO

10. Was the recommended decolonisation process followed by the patient?
    SELECT YES/NO

11. **Please supply relevant screening and decolonisation history.**
    INSERT INFORMATION HERE

12. Was the patient aware of any previous MRSA colonisation/infection?
    SELECT YES/NO
13. Could any deficiencies in screening have contributed to the incident?
SELECT YES/NO

C. DEVICES USED IN RELATION TO PATIENT

14. Please list any devices used in a prior period relevant to this case in the events that led to the infection.

<table>
<thead>
<tr>
<th>Device</th>
<th>Date of insertion</th>
<th>Date of removal</th>
<th>In line with local policy, was the device:</th>
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<tbody>
<tr>
<td>a)</td>
<td></td>
<td></td>
<td>Used appropriately? SELECT YES/NO</td>
</tr>
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<td>INSERT DEVICES USED HERE</td>
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</tbody>
</table>
15. Please provide a summary of any deficiencies in device usage that may have contributed to this incident

D. ANTIMICROBIAL THERAPY

16. During the patient pathway under review, was the patient prescribed any antibiotics?
   SELECT YES/NO

16a. If yes, which antibiotics were prescribed? (you may wish to consider noting details of the prescribers and the dates of the prescriptions)
   INSERT ANTIBIOTICS PRESCRIBED

17. Was the appropriate antibiotic type prescribed?
   SELECT YES/NO

17a. Was the appropriate dosage prescribed?
   SELECT YES/NO

18. If no, could this have been a contributory factor for the MRSA BSI?
   SELECT YES/NO

E. SKIN INTEGRITY

19. Did the patient have any breach in skin integrity (e.g. pressure sores/ulcers, leg ulcers, eczema)?
   SELECT YES/NO

19a. If there was a surgical wound, were any of the correct surgical processes not followed using optimal practice?
   SELECT YES/NO/N/A

19b. If a chronic wound, was it appropriately managed?
   SELECT YES/NO/N/A

19c. If a chronic wound, was it colonised with MRSA?
   SELECT YES/NO/N/A

20. Could any deficiencies in the management of skin integrity have contributed to the incident?
   SELECT YES/NO
F. RISK FACTORS FOR TRANSMISSION

21. Is there any evidence of new colonisation by MRSA during the period of care that led to the current MRSA BSI?
SELECT YES/NO

22. Was the patient appropriately isolated?
SELECT YES/NO

23. Any other factors that may have contributed to transmission?

G. HAND HYGIENE

24. Was there evidence of any deficiencies in hand hygiene compliance in the areas of the pathways of care during this period?
SELECT YES/NO

24a. If “YES”, please provide details.

H. OTHER FACTORS

25. Were there any deficiencies in environmental or equipment cleaning during this period, and could these have contributed to this incident?

26. Were there any other factors (avoidable or unavoidable) relating to this patient’s overall management that could have contributed to the incident?
SELECT YES/NO

26a. If “YES”, please provide details

27. If “YES”, could these have been avoided?
SELECT YES/NO

I. ORGANISATIONAL ISSUES

28. Were staff to patient ratios appropriate or at least in line with local agreement in the areas where this patient was managed prior to the incident?

29. Were there any specific issues with staffing capacity during the period prior to this incident?

30. Were there any likely deficiencies of training in infection control in the areas covered by the patient pathway of care?
### J. GOVERNANCE ISSUES

#### 31. Is there evidence from any of the organisations responsible for the patient’s care:
- Of formal and informal audits of relevant clinical practice being undertaken and used to drive improvement?
- Of processes in place to check effectiveness of clinical practice controls e.g. additional spot checks, use of safety thermometer, intentional walk rounds by matron/lead nurse/board member?
- That ownership of infection prevention and control is evident in individual staff members, teams and management structures and mandated within their governance structures and processes when undertaking PIR/RCAs/Serious Incidents?

#### 32. Is there evidence of infection control policies for the relevant issues identified and have these been reviewed in accordance with the organisation’s requirements?

#### 33. Summary to inform development of action plan for learning outcomes

<table>
<thead>
<tr>
<th>Using the boxes below, please provide summary of factors A to J.</th>
<th>Were any of the factors contributing to the infection identified in this section?</th>
<th>Using the free text boxes below, please state whether the factors that contributed to the infection could have been prevented.</th>
<th>Recommended actions agreed to prevent recurrence.</th>
<th>If examples of sub-optimal practice have been detected, but did not contribute to this infection, please insert details here. Please indication what corrective action is being/has been taken.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreed contaminant</td>
<td>Please insert “Y/N/DK”</td>
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<tr>
<td><strong>A</strong> - Case details</td>
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<td><strong>B</strong> – Screening for Infection/colonisation</td>
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<td><strong>C</strong> – Devices</td>
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<td><strong>D</strong> – Antimicrobial therapy</td>
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<td><strong>E</strong> - Skin Integrity</td>
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<td><strong>F</strong> – Risk factors for Transmission</td>
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<td><strong>G</strong> – Hand Hygiene</td>
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<td><strong>H</strong> – Other factors</td>
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<td><strong>I</strong> – Organisational issues</td>
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<td><strong>J</strong> - Governance</td>
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K. STATEMENT OF GOOD PRACTICE

34. Are the patient and appropriate relatives/carers fully aware of this incident?
SELECT YES/NO

35. PLEASE SUMMARISE THE LEARNING OUTCOMES FROM THIS POST INFECTION REVIEW (using the free text box below)

L. AFTER CONDUCTING THE POST INFECTION REVIEW, THIS CASE SHOULD BE FINALLY ASSIGNED

<table>
<thead>
<tr>
<th>Assigned organisation is (please tick one box):</th>
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<tbody>
<tr>
<td>Acute trust</td>
<td>No agreement between CCG and trust</td>
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<tr>
<td>CCG</td>
<td>Decision by DPH if Case referred for arbitration (select trust or CCG)</td>
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</tbody>
</table>