Reference Number: FOI202425/392
From: Other

Date: 28 November 2024

Subject: Coagulase-Negative Staphylococci Data in ICU

Q1 Number of blood cultures taken from patients in intensive care units in your Trust that grew coagulase-negative staphylococci (including coagulase-negative staphylococci that were identified to species level) from January 2023 to December 2024.

A1 Information not held – the Trust does not routinely collate or hold this information centrally as part of its management or performance data.

Q2 Please confirm whether in your Trust antimicrobial susceptibility testing data is routinely available for all coagulase-negative staphylococcal blood culture isolates or only for those deemed to be a cause of infection.

A2 It is available only for isolates deemed to be a cause, or possible cause, of infection.

Q3 If antimicrobial susceptibility testing data is available for all coagulase-negative staphylococcal blood culture isolates, please indicate how far back in time and for what time period is the antimicrobial susceptibility testing data available.

A3 Not applicable, as per A2.

Q4 Please confirm the antimicrobial susceptibility testing method used in your Trust, e.g. disc diffusion, Vitek 2, and whether EUCAST or CLSI interpretative criteria are used.

A4 Disc diffusion and Sensititre testing. EUCAST interpretative criteria are used

Q5 Please confirm whether coagulase-negative staphylococcal blood culture isolates in your Trust are routinely retained in the laboratory, e.g. on beads or on slopes.

A5 Yes, on beads

Q6 If yes to Question 5, indicate how far back in time and for what time period coagulase-negative staphylococcal blood culture isolates are available. Please indicate if only select isolates are available, for example, those considered to be a cause of bloodstream infection.

A6 Five years; this includes all isolates, not only clinically significant ones.

Q7 Does your Trust use whole-body skin bacterial decontamination for all or selected patients?

A7 Yes, this is for selected patients.

Q8 With respect to whole-body skin decontamination, please confirm to which hospital patient groups this is administered, e.g. all admissions, only high-impact acute

specialities, only MRSA-positive patient. Please provide the relevant Trust policy/guideline.

A8 This is used for MRSA positive patients, please see attached document: MRSA Policy LHCH.

This is used also for patients undergoing cardiac surgery and is given pre-operatively. We do not have a policy for this, but it is in the pre-op assessment electronic records and checklists.

Methicillin Resistant Staphylococcus Aureus (MRSA)

Policy and Procedure

For completion by Author			
Author(s) Name and Title:	Nicola Best, Infection Prevention Nurse Specialist		
Scope:	Trust Wide	Classification:	Clinical
Version Number:	2.7	Review Date:	31/03/2026
Replaces:	2.6		
To be read in conjunction with the following documents:	Infection Prevention & Control Arrangements & Standard Precautions Policy Hand Hygiene Policy Isolation Policy		
Document for public display:	Yes		
Executive Lead	Manoj Kuduvalli		

For completion by Approving Committee			
Equality Impact Analysis Completed:		Yes	
Endorsement Completed:	Yes	Record of Changes	Yes
Authorised by:	Infection Prevention Committee	Authorisation date:	13/02/2024

For completion by Document Control					
Unique ID No:	TC40(08)	Issue Status:	Approved	Issue Date:	14/03/2024
After this document is withdrawn from use it must be kept in archive for the lifetime of the Trust, plus 6 years.					
Archive:	Document Control		Date Added to Archive:		
Officer responsible for Archive:	IG and Document Control Facilitator				

Contents

Policy and Procedure Statement

MRSA (Methicillin resistant Staphylococcus Aureus) has become an important hospital acquired pathogen. Standard precautions such as correct hand hygiene, correct use of PPE, the appropriate treatment and swabbing of the patient, the appropriate decontamination of equipment and the appropriate handling of linen and waste will significantly reduce the spread of MRSA within the hospital. Adherence to these standard precautions and also to the additional precautions detailed specifically in this policy will ensure that the transmission of MRSA, and avoidable complications due to MRSA, should be prevented.

1. Roles and Responsibilities

The Director of Infection prevention & control is responsible for the implementation of this policy.

The infection prevention committee is responsible for the development and approval of this policy.

The infection prevention team are responsible for carrying out surveillance related to MRSA and producing the quarterly reports to the Infection Prevention Committee and the Trust Board and for reporting all MRSA bacteraemia cases to UKHSA (UK Health and Security Agency), as part of the mandatory surveillance scheme

The infection prevention team are also responsible for carrying out training and education on this policy.

The ward staff are responsible for identifying previously positive MRSA patients who have been readmitted and ensuring they are appropriately placed, and the capacity management team are responsible for identifying MRSA positive patients prior to transfer and ensuring they are appropriately placed.

All Liverpool Heart and Chest Hospital Trust Staff are responsible for co-operating with the development and implementation of this policy as part of their normal duties and responsibilities and participating in any investigation or root cause analysis as required.

Temporary or Agency Staff, students or others will be expected to comply with the requirements of all Trust policies applicable to their area of operation.

2. Document Control Standards

Staff have a duty to work to the standards set out in National Infection Prevention and Control Manual for England, see references.

3. Procedure

3.1 Screening of patients

Patients in the categories below will be screened for MRSA.

- Elective patients
  This includes all patients, with the exception of patients admitted for most day case procedures. However, patients admitted for a day case procedure that involves insertion or adjustment of an implantable medical device e.g., for pacemaker/ICD insertion or box change patients should be screened for MRSA.
- Emergency admissions
  Patients admitted as an emergency from clinic or for primary PCI will be screened on admission.
- Transfers
  An MRSA screen will be requested from the transferring healthcare institution if there is sufficient time for the results to become available (2-3 days). If the transfer is an emergency/urgent then a screen will be done on admission.
- Intensive care patients
  Patients who have been on the unit>72 hours will be screened weekly.
- Known positive patients.

Specimens will be taken from the following sites:

- Nose (1 swab for both nostrils)
- Throat
- Groin (1 swab for both groins)
- Any wound or breach in skin integrity
- Sputum specimen if productive cough is present

Swabs will be taken by first moistening the swab with sterile water/saline and then firmly rubbing the area to be sampled.
Throat swabs should be taken deep enough to elicit a gag reflex

3.2 Treatment Pending Results

Inpatients can be nursed in the main ward while awaiting results unless they are known to have been positive for MRSA in the past and have been readmitted.

Transfers into a high-risk area i.e. the critical care unit should preferably be placed in a sideroom, if one is available, until results are available.

3.3 Notification of MRSA Positive Status

The swab results will usually be known within 2-3 days after they have been received by the laboratory. Any positive results will be notified to the appropriate department by the infection prevention nurse or the microbiology department within 24 hours of the results being made available.

If the patient is known to be MRSA positive from another healthcare institution it is the responsibility of the capacity management team to notify the Infection Prevention team (IPT).

3.4 Pre-operative MRSA Positive Patients

If a patient is identified to be MRSA positive pre-operatively, prior to their admission the following procedure will be followed:

- The infection prevention team will notify the relevant medical team via the medical secretary and the capacity management team.
- The infection prevention team will arrange for decolonisation treatment to commence in the community, if possible, prior to admission. Ideally it should be arranged that the patient has 4 days of treatment pre-operatively and continues the treatment on the day of surgery.
- Negative screen results will not be required prior to surgery so long as the patient has commenced treatment.
- The patient will be admitted into a side room on the ward and will be cared for with contact isolation precautions whilst on the ward and also whilst on the intensive care unit. Isolation precautions will continue until 3 sets of negative screens have been obtained.

3.5 Bed Management of MRSA Positive Patients on the Wards

If a patient is found to be MRSA positive during their admission they will be nursed in a single room with the following “contact isolation” precautions taken

- An isolation notice must be displayed on the door.
- If there is the potential for any patient contact or contact with equipment, gloves and aprons must be worn before entering the room.
- Gloves and aprons must be discarded into the orange bin before leaving the room.
- Hands must be washed before leaving the room and alcohol rub applied after leaving.
- Equipment should be dedicated for the isolation room only or if this is not possible only necessary equipment should be taken into the room and then must be cleaned before removal
- The door should be kept closed for all patients classed as high risk of disseminating MRSA unless it would compromise the safety of the patient.
  Those at high risk of dissemination will include patients who:
  Have MRSA present in large, exuding wounds.
  Have MRSA in the throat or sputum and have a productive cough, or a tracheostomy or endotracheal tube in situ.
  Have eczema, psoriasis, or other skin condition.
- The floor and horizontal surfaces in the room should be cleaned at least daily.

Patients with MRSA should be informed of their status and given information on the isolation precautions being taken and their treatment regime, they should be offered a patient information leaflet on MRSA.
It is the responsibility of the ward staff, and the infection prevention nurses to ensure information is provided.

Although patients who are MRSA positive should be advised to stay in their room and refrain from using communal ward areas e.g., Day rooms, they should be allowed to walk along the main corridors as their condition allows.
If the side room being used to house the patient does not have ensuite facilities a toilet should be identified for the use of that patient. If the patient uses a communal bathroom/shower room, it should be cleaned after use.

If a patient is deemed to be at risk if nursed in a single room, they should be nursed in the main ward with mobile screens around them, after consultation with the IPT (Infection prevention team).

3.6 MRSA Positive Patients on the Intensive Care Unit

If a patient is found to be MRSA positive in the intensive care area they will be nursed in the dedicated isolation rooms. The doors to these rooms will be kept closed and the entrance and exit will be via the gowning lobby. If a patient becomes MRSA positive while on the Post-operative critical care unit they will be transferred to the isolation rooms on the intensive care unit.

Patients who have been on the intensive care unit for a period of > 72 hours will be routinely screened for MRSA weekly, on a Monday (on Bank Holidays this will be done on the next working day).

3.7 Patients in Contact with MRSA

Patients nursed in the same area as an MRSA positive patient will be deemed a contact. They will be screened for MRSA and managed by the IPT following a risk assessment, taking into account the following issues:

- The extent of colonisation/infection
- The time the patients have been on the ward.
- Assessment of patients in the adjacent area

The screening should be performed as outlined in section 2.1.

3.8 Identification of MRSA Positive Patients

All MRSA positive patients will be flagged up on the iCS system by using the symbol- # - in red, which will be located on the top of the screen at the end of the patient's name and address. It is the responsibility of the ward staff to identify previously positive MRSA patients who have been readmitted and to inform the infection prevention team of their admission.
MRSA positive patients will be identified on the operating list by an R next to their name.

Patients will also be identified on the EPR system with a flag at the top of the screen i.e., Isolation: MRSA

3.9 Treatment/Decolonisation of MRSA Positive Patients

Positive site	Treatment
Screening swabs	Daily wash with skin cleanser containing chlorhexidine (e.g. Hibiscrub) 2% mupirocin (e.g. Nasal Bactroban) x3 daily
Sputum	Systemic antibiotics will be prescribed only if clinically indicated
Superficial skin lesion or wound	2% mupirocin (e.g. Bactroban) ointment used daily
Wound/drain site	If wound is clinically infected systemic antibiotics will be prescribed by the medical team The site should be covered with an appropriate dressing to ensure that all fluid/discharge is contained.

Topical treatments will usually be given for 5 days and then stopped. After 2 days without treatments the patient will then be rescreened to check for the presence of MRSA.

If mupirocin is unavailable an alternative Naseptin (Chlorhexidine and Neomycin), nasal cream can be used 4x daily for 10 days.

If positive results are obtained the patient will be recommenced on treatment.

Mupirocin should not usually be given for more than 2 courses of treatment.
Systemic antibiotics will continue for as long as is clinically indicated.

3.10 Surgical Intervention

The patient should receive MRSA decolonisation treatment prior to surgery.
Affected skin lesions should be completely covered with an impermeable dressing.

If antibiotic prophylaxis is indicated it should be altered to include a glycopeptide as a prophylactic agent (see antimicrobial policy for details).
The patient should be scheduled last on the list if this is possible and suitable.

Theatre surfaces in contact with the patient must be decontaminated before the next patient enters.

The patient should be scheduled last on the list if possible, if this is not possible surgery can take place in the same theatre within 20 minutes of removal of MRSA positive patient.

3.11 Visits to other Departments

The receiving department must be informed in advance of any MRSA positive patient.

If the patient is having any procedure undertaken they should preferably be placed at the end of the working session if possible and suitable.

The patient should spend the minimum amount of time possible in the department and should be sent for when the department is ready and not left in waiting areas with other patients.

All wounds or lesions should be completely covered with an impermeable dressing prior to visiting another department.

The chair or trolley used to transport the patient should be kept in the department for the return journey if possible. It should be cleaned with a disinfectant wipe after use.

Staff assisting the patient to transfer to and from the chair/trolley should wear apron/gloves. These are not necessary in transit.

3.12 Linen

All linen should be placed in a red alginate bag and then a plastic bag in accordance with the linen policy.

3.13 Visitors

There are no restrictions on visitors of MRSA positive patients. They should be instructed to cover any wounds/lesions present and to wash their hands thoroughly before leaving.

3.14 Clearance of MRSA

Clearance of MRSA will be regarded as achieved following at least 3 negative screens (swabs taken from all sites), taken at weekly intervals. The swabs cannot be taken while on topical decolonisation treatment.
Once clearance has been achieved the patient's room should be cleaned according to the terminal clean protocol and the patient should change into clean clothes and all the linen on the bed changed prior to the patient being moved to another area.

3.15 Patient Discharge

If an MRSA positive patient is transferred/discharged from a bed space or room it should be cleaned and the curtains changed in accordance with the terminal/intensive clean protocol.

If a patient is being transferred to another hospital it is the responsibility of the patient's clinical team or the transferring ward to inform the receiving ward of the patients MRSA status.

If an ambulance is required it is the responsibility of the ward staff to inform ambulance control of the patient's MRSA status prior to the transfer.

3.16 Staff Screening

Routine screening of staff will not be necessary and will only be undertaken when specifically requested by the IPT.

If staff are identified as MRSA positive they will be given decolonisation treatment.

The staff will be assessed by the infection prevention team and depending on the extent of colonisation/infection and the area in which they work they may be subject to restrictions in their work practice, as advised by the consultant microbiologist.

3.17 VRSA/GRSA Strains

In order to ensure glycopeptide resistant strains are detected clinicians should contact the microbiology department to notify a lack of response to glycopeptides and to seek advice on treatment.

Additional precautions will be taken for patients found to colonised or infected by vancomycin/glycopeptide resistant S. aureus including notification to UKHSA and tracing of all patients in contact with the index case.

3.18 Surveillance

The infection prevention nurses will monitor and record all cases of MRSA using a specialised software system. They will produce quarterly reports to the Infection prevention committee and report all MRSA bacteraemia cases via the UKHSA website. A root cause analysis will be performed for all cases of MRSA bacteraemia and all serious untoward incidents related to MRSA.

4. Policy Implementation Plan

The policy will be accessible on each ward and also via the Trust intranet.

Managers have a responsibility to ensure that staff know how to access this policy and staff have a responsibility to read this policy and to seek clarification of any issues they do not understand.

Staff will be made aware of this policy in the annual mandatory training and also during corporate induction sessions.

An MRSA care pathway in the EPR system will be used for in-patients whose expected length of stay is > 1 day.

5. Monitoring of Compliance

Infection control practices including hand hygiene and decontamination of equipment will be monitored as part on the ongoing infection control audit process (see respective policies for details).

The incidence of MRSA colonised or infected patients will be monitored as part of the ongoing surveillance strategy and reports issued monthly to the Trust Board and Infection Prevention Committee (IPC).

Compliance with the screening regime, identification and isolation of MRSA positive patients and adherence to contact isolation precautions will be audited by the infection prevention team at least annually and results reported to IPC.

Antibiotic prophylaxis regime for MRSA positive patients will be audited by the antibiotic pharmacist and results submitted to the Drugs & therapeutic committee and the IPC.

The Infection prevention committee will review the progress in reducing MRSA rates across the Trust.

6. References

Guidelines for the control and prevention of Methicillin Resistant *Staphylococcus aureus* in healthcare facilities by the joint Hospital Infection Society/Infection Prevention society Working Party on MRSA. Journal of Hospital Infection (2021) 118: S1-S39

Pratt RJ et al and the epic guideline development team (2013). National Evidence Based Guidelines for preventing healthcare associated infections in NHS hospitals in England. *Journal of Hospital Infection.* v86 (supplement) S1-S70

NHS England (2022). National Infection Prevention and Control Manual for England.
NHS England » National infection prevention and control manual (NIPCM) for England

7. Endorsed By

Name of Lead Clinician/ Manager or Committee Chair	Position of Endorser or Name of Endorsing Committee	Date
Director of Infection Prevention & control	Infection prevention committee	29th January 2014
Director of Infection Prevention and Control	Infection Prevention Committee	19th January 2016
Director of Infection Prevention and Control	Infection Prevention Committee	23rd January 2018
Director of Infection Prevention and Control	Infection Prevention Committee	22nd April 2021
Director of Infection Prevention and Control	Infection Prevention Committee	13th February 2024

8. Record of Changes

Section Number	Version Number	Date of Change	Description of Amendment	Description of Deletion	Description of Addition	Reason
3.1		June 2015	Change to day case screening process			Policy change
1.0	2.4	January 2018	Name change	HPA	PHE	Change of name of organisation
1.0	2.5	April 2021	Audit frequency changed	Monthly	Quarterly	Change in practice
References		February 24	Updated			