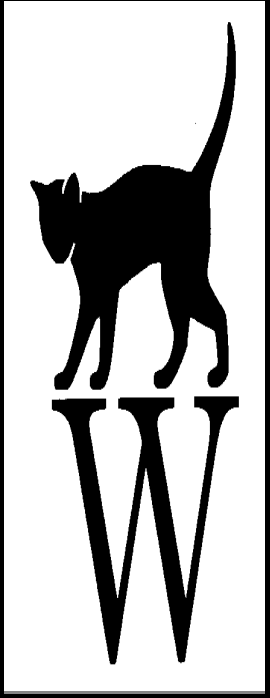


Whittington Hospital NHS Trust

Meticillin Resistant Staphylococcus Aureus (MRSA): Screening policy for patients

Version:	2
Ratified by:	Infection Control Committee
Date ratified:	
Name of originator/author:	Dr Julie Andrews
Name of responsible committee/individual:	
Date issued:	
Review date:	2 years hence
Target audience:	

	<p align="center">A Whittington Hospital Clinical Management Guideline</p>									
	<p align="center">Meticillin Resistant Staphylococcus Aureus (MRSA): Screening policy for patients</p>									
	<table> <tr> <td>Date:</td> <td>March 2009</td> </tr> <tr> <td>Review Date:</td> <td>March 2011</td> </tr> <tr> <td>Author:</td> <td>Dr Julie Andrews (Consultant Microbiologist & DIPC) Gretta O'Toole (Infection Control Nurse) Trisha Folan (Infection Control Matron) Dr Michael Kelsey (Consultant Microbiologist)</td> </tr> <tr> <td>Speciality:</td> <td>Microbiology/Infection Control</td> </tr> <tr> <td>Directorate:</td> <td>Diagnostics and Therapies</td> </tr> </table>	Date:	March 2009	Review Date:	March 2011	Author:	Dr Julie Andrews (Consultant Microbiologist & DIPC) Gretta O'Toole (Infection Control Nurse) Trisha Folan (Infection Control Matron) Dr Michael Kelsey (Consultant Microbiologist)	Speciality:	Microbiology/Infection Control	Directorate:
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Speciality:	Microbiology/Infection Control									
Directorate:	Diagnostics and Therapies									
<p>Relevant to: All clinical staff involved in MRSA screening of patients and all staff dealing with MRSA positive results including doctors, nursing staff, midwives, pharmacists and support staff.</p>										

Keywords: MRSA, Screening, MRSA suppression protocol

Introduction and Rationale for Screening

Staphylococcus aureus is one of a number of bacteria that colonizes skin, nasal passages and the mouth. Between 20% and 40% of the population carry this organism without any ill effects.

MRSA stands for Meticillin (M) resistant (R) *Staphylococcus* (S) *aureus* (A) and is a variety of *Staphylococcus aureus* that is resistant to Meticillin (a type of penicillin) and may also be resistant to other antimicrobials as well as most penicillins and Cephalosporins.

Screening patients for MRSA carriage (known as colonisation) and acting on positive MRSA screen results with interventions (such as prescribing MRSA suppression protocol, isolating patients and giving additional antimicrobial prophylactic regimes) can help to reduce the risks of the following:

- MRSA Surgical site infections and other infections with MRSA
- MRSA bacteraemia
- MRSA transmission between patients in a healthcare setting

Screening

The following patients should be screened for MRSA carriage:

- All patients prior to having an elective surgical procedure (either as a daycase or inpatient) when attending pre-assessment clinic/outpatient clinic/Day treatment centre pre-assessment (Screen ideally 3-4 weeks prior to surgery)
- All patients attending haematology and oncology day units (Screen once monthly/ bi-monthly)
- All adult patients admitted from the Emergency Department (ED nursing staff to screen in ED prior to bed allocation)
- All adult patients admitted from home, clinic, pre-assessment units etc prior to bed allocation (bed management will ask whether screen has been taken before allocating bed)
- All women having elective Caesarean sections (Screen in the Antenatal Clinic ideally 3-4 weeks prior to CS)
- All women having an emergency Caesarean section (Screen on ward/theatre)
- All mothers of babies that may require future neonatal unit (NNU) admission (Screen in Antenatal clinic, ANC or postnatal ward)
- All mothers of babies that have been admitted to NNU (Screen on postnatal ward)
- All patients (including paediatric) transferred from another inpatient healthcare setting
- All patients that have been previously MRSA positive (from screen or clinical isolate)
- All patients that ICT decide to (re)screen as part of a possible transmission event, or an outbreak situation or in high prevalence area

All patients admitted onto Critical Care Unit or NNU are screened on admission to augmented care and negative patients are screened weekly according to local guidelines.

It is the admitting wards responsibility to check that the emergency admission MRSA screen has been taken in ED. If the MRSA screen has not been taken, this needs to be sent from the admitting ward.

The following patients will not be screened as routine at present;

- Day case ophthalmology patients
- Endoscopy patients
- Routine Obstetric patients
- Paediatric patients

It is important that patients know that this MRSA screen only detects MRSA and is not set up to look for any other bacteria e.g. Group B strep, meticillin sensitive *S.aureus* etc;

Following the administration of the MRSA suppression protocol a repeat MRSA screen looking for MRSA clearance is not required.

Once a patient has been found to be MRSA positive at the Whittington (from a MRSA screen or clinical isolate) they are always considered MRSA positive in the future (even if a MRSA screen is negative or patient has been previously given MRSA suppression protocol).

Equipment required

MRSA screening documentation, patient information leaflet and sterile transport swabs.

Screening methodology

Provide the patient with the leaflet explaining the screening process for MRSA. The patient's consent must be obtained before sampling.

A single microbiology request form should be used for each patient; swabs from the sampling sites should be labelled and sent to the microbiology laboratory in one specimen bag. The Healthcare worker (HCW) must label what clinical area the swabs are being sent from e.g. Pre-assessment unit, ANC or ward etc;

It is usual to send nose and groin swabs from most patients but send wound and indwelling devices swabs if these are present in your patient.

NNU send nose, umbilical and perineal swabs as routine screen.

Nose swab

The nose sample must be taken from the anterior nares; the swab should be moistened using the transport medium or sterile saline/water and rotated five times within each nostril. After sampling place the swab directly into the transport medium.

Groin swab

The swab should be moistened using the transport medium or sterile saline/water. The groin should be vigorously swabbed. After sampling place the swab directly into the transport medium.

Wound and indwelling devices site/s swabs

If the site is dry, the swab should be pre-moistened using the transport medium or sterile saline/water. Any wounds or ulcers and indwelling devices site/s should be swabbed. After sampling place the swab directly into the sterile transport medium.

The nurse must record once the swab has been obtained and when results are available. Any treatment prescribed must also be documented.

Clearance swabs for MRSA (following suppression protocol) are not required.

Turnaround times for MRSA screen results

MRSA negative screens are available within 24 - 36 hours of the swabs being received into the Microbiology laboratory. MRSA screen positive results are available within 72-96 hours.

The ICT will directly contact wards and other clinical areas with first-time positive MRSA screen/or clinical isolate results only. Negative and positive results will also be available from the Anglia ICE computer system.

Handling of positive MRSA results (from screens and clinical isolates)

1. The Infection Control team (ICT) will directly contact the ward for inpatients or pre-assessment clinics for elective surgical outpatients when MRSA screen/clinical isolate is positive. They will recommend the patient be prescribed MRSA suppression protocol. The ICT will also handover if the MRSA isolate is mupirocin sensitive or resistant.



Please see Whittington Hospital NHS Trust Guideline:
MRSA: Management of MRSA positive patients.

2. The Microbiology doctors will bleep the inpatient team directly to advise them that MRSA positive patients must receive MRSA suppression as an inpatient.
3. The ICT will visit inpatients with a first-time MRSA positive result, to attach generic MRSA sticker into their hospital notes. They will ensure the patient (or relative) has been told by ward staff that the MRSA result is positive.

4. The ICT will directly contact the GP with a first time positive MRSA result if this has been taken as an emergency admission screen but the patient is no longer an inpatient. This will be done using a standard template letter.
5. The ICT will update the patient PAS records with a first time MRSA result with the term "sub to transmission precautions and date". This comment appears on the left-hand side of the front screen of PAS in red.
6. The Healthcare worker (HCW) receiving the MRSA positive result must record the result in the patient's notes or Integrated care pathway (ICP) according to locally agreed policy.
7. If the patient is an inpatient the HCW must inform the patient (or relative) and clinical team plus all departments (including radiology, theatres etc) that the patient may visit during their stay. This information must then form part of the discharge letter to the GP and/or community nurse/midwife. The HCW should update the BedWeb system (in conjunction with the person in charge of the ward) with a red alert to show the patient is "subject to transmission based precautions" Contact IM and T for training with this software if required.
8. If the patient is an outpatient the HCW must inform the GP and other interested primary care personnel using a standard letter, according to local agreement. Standard letters are currently available in pre-assessment clinics. The HCW must also inform the Admissions office, theatre co-ordinator and other relevant parties with the expected date of surgery/delivery/elective admission.
9. All MRSA positive inpatients and all elective outpatients (due to be operated on as day case or inpatients) should be prescribed "5 day MRSA suppression protocol". Reasons for deciding not to administer the MRSA suppression protocol to patients needs to be documented in the patients' notes or ICP and then inform the ICT. Once started suppression protocol should be given for the full five-day course.
10. Medical inpatients should start the MRSA suppression protocol as soon as the MRSA positive result is available and it has been prescribed. Do not repeat MRSA suppression protocol, if it has been given within last month.
11. Surgical patients (including maternity patients and medical patients undergoing any surgical procedure) should be prescribed MRSA suppression protocol ideally in the five days up to and including day of surgery.
12. If the operation/procedure is cancelled and more than 2 weeks elapses before the procedure is performed, the suppression protocol should be repeated.
13. For further information relating to MRSA suppression protocol (such as when to give if surgery cancelled, how to prescribe, what to give if a patient is chlorhexidine sensitive etc;) please refer to the policy on the intranet MRSA: Management of MRSA positive patients. A standard MRSA suppression protocol prescription can be downloaded from Clinical guidelines/Infection control.



Please see Whittington Hospital NHS Trust Guidelines:
MRSA: Management of MRSA positive patients.
MRSA: Suppression protocol prescription.

Compliance monitoring

Monitoring of compliance with emergency admission screening, elective inpatient screening, elective attendance screening and elective Caesarean section screening will be presented at the monthly Hospital management and Trust board. This is patient matched data and will be supplied by IM&T from data given to them by the Microbiology department.

Non-compliance issues will be addressed with relevant ward managers and clinical leads. The number of elective patients that should have been screened but were not will be sent monthly to pre assessment clinics to determine reasons for non-compliance.

Compliance with prescribing and 5 day completion of MRSA suppression protocol to MRSA positive patients forms part of an ongoing audit with the Infection Control team and individual wards.

References

Anwar, R. Botchu, R. Viegas, M. Animashawun, Y. Shashidhara, S. Slater, G. J. R. (2006) Preoperative meticillin-resistant *Staphylococcus aureus* (MRSA) screening: An effective method to control MRSA infections on elective orthopaedics wards. *Surgical Practice*, vol 10, no 4, pp. 135-137(3)

Cookson, B. (1997) Controversies: Is it time to stop searching for MRSA? Screening is still important. *British Medical Journal* 314:664-665.

Department of Health (2006) Screening for Meticillin-resistant *Staphylococcus aureus* MRSA colonisation: A strategy for NHS Trusts – a summary of best practice. *Saving Lives: a delivery programme to reduce HCAI including MRSA*

Samad, A. Ghosh, S. Carbarns, N. (2002) Prevalence of Meticillin Resistant *Staphylococcus Aureus* (MRSA) colonization in surgical patients on admission to a Welsh hospital. *British Journal of Surgery* 89: Supplement 3.

Useful contact numbers:

During working hours

Infection Control Nurses	ext 3261 or bleep 2669
ST doctor in Microbiology	ext. 5085 or bleep 3069
Dr Michael Kelsey (Consultant Microbiologist)	ext. 5082
Dr Julie Andrews (Consultant Microbiologist)	ext. 3894
Lead Pharmacist, Antimicrobials	ext. 3732 or bleep 3138
Medicines Information	ext. 5021

Out of hours

On-call ST doctor in Microbiology	aircall via UCLH switchboard on 020 7387 9300
On-call pharmacist	aircall via Whittington switchboard

MRSA suppression therapy prescription

Name:

Hospital number:

Nurse initials in block capitals in each box when drug administered **OR** Enter code in the appropriate column if a dose is not administered as prescribed
 1 = medication not required 2 = refused 3 = absent from ward 4 = nil by mouth 5 = prescription not clear/signed
 6 = unable to administer 7 = medicine not available **NB** check emergency drug cupboard & on-call pharmacist

REGULAR MEDICATIONS

YEAR		DATE & MONTH				
Circle times required ↓						
Use blank space for therapeutic levels if required						
DRUG (approved name) (BACTROBAN®) MUPIROICIN 2% NASAL OINTMENT		6				
Route	Dose & frequency	⑧				
TOP	Both nostrils TDS	⑫				
Signature and bleep		⑮				
Pharmacy						
Additional instructions		22				
Apply to the inside of both nostrils. FOR 5 DAYS ONLY		Day	1	2	3	4
DRUG (approved name) (HIBISCRUB®) CHLORHEXIDINE 4% SOLUTION		6				
Route	Dose & frequency	⑧				
TOP	As a body wash OD	12				
Signature and bleep		18				
Pharmacy						
Additional instructions		22				
Apply undiluted onto wet skin then rinse off. FOR 5 DAYS ONLY		Day	1	2	3	4
DRUG (approved name) (HIBISCRUB®) CHLORHEXIDINE 4% SOLUTION		6				
Route	Dose & frequency	⑧	X	X	X	
TOP	As a shampoo OD	12				
Signature and bleep		18				
Pharmacy						
Additional instructions		22				
Apply undiluted onto wet hair then rinse off. On DAY 1 and DAY 5 only		Day	1	2	3	4
DRUG (approved name) (CX®) CHLORHEXIDINE 4% POWDER		6				
Route	Dose & frequency	⑧				
TOP	Dust skin folds OD	12				
Signature and bleep		18				
Pharmacy						
Additional instructions		22				
Dust skin folds after washing. FOR 5 DAYS ONLY		Day	1	2	3	4

INSTRUCTIONS

Skin

- Hibiscrub® should be applied directly onto wet skin with a disposable cloth or hands in the same way as a shower gel, and then rinsed off. Do not add Hibiscrub® to the bath water as this will make it too diluted to be effective. Begin with the face, and work downwards paying particular attention to the areas around the nose, armpits and groin.
- After drying the skin, powder the skin folds i.e. armpits, groin and stomach, with CX® Powder.
- Lesions should be covered, where possible, with an impermeable dressing.

Hair

- Hair will need to be washed with Hibiscrub® on day 1 and day 5. This should be put straight onto wet hair in the same way as a shampoo, and not diluted. Ordinary shampoo and conditioner can be used afterwards if needed.

Nose

- Apply a small amount (about the size of a match stick head) of Bactroban® nasal ointment to the inner surface of each nostril with a cotton wool swab thoroughly. Then, to help spread the ointment, press the sides of the nose together.

Repeat swabs for MRSA are NOT required following completion of the suppression protocol.

Appendix A

Plan for Dissemination and implementation plan of new Procedural Documents

To be completed and attached to any document which guides practice when submitted to the appropriate committee for consideration and approval.

Acknowledgement: University Hospitals of Leicester NHS Trust

Title of document:	Meticillin Resistant Staphylococcus Aureus (MRSA): Screening policy for patients		
Date finalised:	February 2009	Dissemination lead: Print name and contact details	
Previous document already being used?	Yes (Please delete as appropriate)		
If yes, in what format and where?	Intranet		
Proposed action to retrieve out-of-date copies of the document:	Intranet		
To be disseminated to:	How will it be disseminated/implemen ted, who will do it and when?	Paper or Electronic	Comments
Ward managers	Via Ward Manager meeting	E	
ICC	Via Dr Andrews	E	
Is a training programme required?	No		
Who is responsible for the training programme?	N/A		

Appendix B

Equality Impact Assessment Tool

To be completed and attached to any procedural document when submitted to the appropriate committee for consideration and approval.

Impact (= relevance) 1 Low 2 Medium 3 High	Evidence for impact assessment (monitoring, statistics, consultation, research, etc)	Evidential gaps (what info do you need but don't have)	Action to take to fill evidential gap	Other issues
Race	Low			
Disability	Low			
Gender	Low			
Age	Low			
Sexual Orientation	Low			
Religion and belief	Low			

Once the initial screening has been completed, a full assessment is only required if:

- The impact is potentially discriminatory under equality or anti-discrimination legislation
- Any of the key equality groups are identified as being potentially disadvantaged or negatively impacted by the policy or service
- The impact is assessed to be of high significance.

If you have identified a potential discriminatory impact of this procedural document, please refer it to relevant Head of Department, together with any suggestions as to the action required to avoid/reduce this impact.