

Clinical Practice Policy

Policy for the Control of Meticillin Resistant Staphylococcus Aureus (MRSA)

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Version	6 (Update of 2010 version)
Version Date	February 2011
Implementation/approval Date	March 2011
Review Date	March 2014
Review Body	Infection Control Committee
Policy Reference Number	5\tw\ic\m\

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Summary

Risk	Ward	Full Ward Screening day and Frequency	Isolation	Admission screening
High Risk	ITU Halley Thomas Audley Priestley SCBU/NICU	All patients weekly on a Monday	Sideroom with contact precautions Incubator or single room with contact precautions	All patients
	Templar	On the advice of the ICT	Sideroom with contact precautions	Patients who have been in hospital in the last 12 months, previously MRSA positive, transfers from other hospitals, healthcare workers, C.section (semi-elective or emergency), baby likely to require NICU/SCBU
Moderate Risk	Delivery Suite	N/A	Contact precautions	Emergency C.section, baby likely to or does require NICU/SCBU
	ACU Cardiology Edith Cavell Lamb Lloyd Aske Starlight Acute Rehabilitation Unit	On the advice of the ICT	Sideroom isolation with contact precautions if clinical condition allows or contact precautions in bed space	All patients apart from *Starlight *Starlight - Patients who have been in hospital in the last 12 months, previously MRSA positive, transfers from other hospitals
Minimal Risk	Graham RNRU	On the advice of the ICT	Sideroom isolation with contact precautions if clinical condition allows or contact precautions in bed space	All patients
	Mary Seacole and community	On the advice of the ICT	Standard precautions	None

1.0 Introduction

Guidelines for the control and, eradication of MRSA in Health Care facilities were produced in 1986² (EMRSA-1), and again in 1990⁴ (EMRSA-16). These were superseded by a third set of Guidelines, published in 1998, which have now been reviewed (Coia et al, 2006). In this document 'meticillin' has been used in place of the established 'methicillin' in accordance with the new International Pharmacopoeia guidelines.

This guideline has been developed and reviewed using the most recent National Guidelines for the control of MRSA in hospitals (2005) and adapting them to the clinical areas within the Homerton University NHS Foundation Trust. They have also been developed in line with Department of Health universal screening programmes for MRSA – see below links.

http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_086687?IdcService=GET_FILE&dID=175491&Rendition=Web

http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_086687?IdcService=GET_FILE&dID=170026&Rendition=Web

This guideline was developed by the infection control team. It was then distributed to the infection control committee for endorsement and then to the policy review group for final ratification (Appendix 1).

The purpose of the policy is to provide recommendations for practice to reduce the risk of acquiring MRSA in the hospital or developing MRSA infections.

2.0 Scope

This policy applies to all employees of the Trust in all locations including the Non-Executive Directors, temporary employees, locums and contracted staff.

3.0 Roles and responsibilities

Infection Control Team

To provide training on infection control procedures to all staff on formal induction programmes, refresher training courses. To monitor the high impact intervention results as part of the infection control audit programme.

Directorates

To ensure that all staff within their teams attend training, comply with Trust practices and act on monitoring and audit reports of non compliance.

Medical Staffing and Education Team

To ensure that all appropriate training incorporates infection control and prevention training. To organise, maintain records and follow up on non-attendance for induction of all staff.

Dept/team Managers

To ensure that all staff have infection control included in their personal development plan and attend trust induction and refresher training on infection control and areas of poor practice/non compliance are addressed.

Clinical staff

To ensure that they are adequately trained and competent to deliver care to patients when inserting or for ongoing care of lines where appropriate for role. To comply with the standards in this document.

4.0 Practice recommendations

4.1 Basic principles

- These standards are consistent with standard infection control precautions.
- 'Alert' organism surveillance on MRSA cases is performed by the Infection Control Team and fed back to clinical areas. MRSA bacteraemia surveillance is performed and data sent to the Department of Health mandatory surveillance unit.
- Correctly performed hand hygiene before and after every patient contact as per Trust hand hygiene policy.
- Wearing disposable gloves and plastic aprons for contact with all body fluids, lesions and contaminated materials.
- Appropriate isolation of patients with, or suspected of having, a communicable infection.
- Adherence to the Homerton University Hospital Antibiotic Guidelines.
- High standards of aseptic technique.
- High standards of ward cleaning.
- Careful handling of used linen and its transport in sealed bags of the appropriate colour. (See the Laundry policy).
- Segregation of all waste, careful handling of clinical waste and its transport in a sealed bag of appropriate strength and colour.
- Avoiding overcrowding of patients.
- Reviewing the need for and minimizing where possible intra and inter ward transfers of patients.
- Maintaining adequate and appropriately skilled nursing and other staff levels.
- Regular monitoring of compliance with the infection control policies through effective audits.

4.2 Risk assessment of the Clinical areas in the Homerton University NHS Trust

MRSA is endemic in this hospital therefore the National Guidelines recommend categorising clinical areas according to risk. In our risk assessment of the areas in this hospital, we differ with the National Guidelines in some areas this is based on local data for MRSA cases and risks.

4.3 MRSA Admission Screening Admissions to hospital

All patients admitted to hospital must have an admission screen performed on admission (except maternity admissions – see below for specific instructions).

The screen must be taken by the department receiving the patient from the A&E or the referring department.

If a patient is transferred to a ward the receiving ward should do an MRSA screen, this does not include transfers from ACU to wards.

Maternity and paediatric admissions should only be screened if they fall into a high risk category – if they have been previously positive for MRSA, been an in-patient (hospital stay over 8 hours) in the last 12 months, are a health care worker (those who work in a hospital including volunteers, & workers in nursing/residential homes) or admitted from another hospital or nursing home. If a maternity patient undergoes an emergency or semi-elective C-section or the baby is likely to require NICU/SCBU admission she should be screened for MRSA by the midwife with primary responsibility for the mother prior to transfer to theatre or immediately following transfer to recovery.

Babies readmitted with their mothers or mothers readmitted with their babies – both must be screened on admission.

Mary Seacole Nursing Home should not routinely do admission screening of residents.

If a patient has had a recent positive swab in the last year and has not any subsequent negative screens they should be started on MRSA protocol and contact precautions following the admission screen. There is no requirement to wait for a result from the admission screening

swabs prior to starting protocol. This can be checked by going on to EPR and checking the alert tab. There will be an alert organism flag on EPR, click on the alert tab and the information on the type of organism and when the date of the positive specimen was will be on there.

Screening process

- Dry (red) swabs should be used for MRSA screens only.
- The screen can be ordered using the order set on EPR.
- Weekly full ward screens should be done on the ward dedicated screen day.
- **Admission screens should be done in the first 24 hours of admission.**
- Sites for MRSA screening of positive patients, admission screens and weekly ward screens are:
 1. Nose
 2. Throat (in paediatrics if this is deemed traumatic it maybe omitted)
 3. Groin
 4. Wounds (this would include any skin lesions e.g. eczema, psoriasis)
 5. IV lines (if present)
 6. CSU (if catheter present)
 7. Sputum (if being produced)
 8. Umbilicus should also be screened in infants
- Initial staff screening sites are the nose and any skin lesions and this should be done at the beginning of a shift to reduce the chance of picking up transiently colonised cases. A staff screen sheet supplied by the ICT should be used as these screens cannot be requested on EPR. If MRSA positive a full screen as above will be done by Employee Health.

4.4 Infection Control Procedures

Minimal risk area.

The following areas at the time of writing the policy fall into minimal risk.

- Graham
- RNRU
- Mary Seacole
- Community

Action to be taken on the identification of a case of MRSA.

- Basic control measure covered in 4.1 should be followed, but isolation in the majority of cases would not be necessary in Mary Seacole Nursing Home (all residents have their own room). Graham ward and RNRU the patient should be nursed in a single room or on contact precautions in the bay.
- In the community setting contact precautions using gloves and aprons for clinical contact with the patient should be used. Appropriate advice to be given to household contacts who maybe deemed at risk e.g those with open wounds, invasive devices
- Cover lesions from which MRSA has been isolated with an impermeable dressing.
- In the Acute Homerton Trust the MRSA positive patient should be started on decolonisation protocol (see 4.8) and screened weekly.
- The other patients on the ward do not need to be routinely screened.
- Patients at Mary Seacole Nursing Home and in the community will not generally require decolonisation protocol however in some circumstances it may be deemed suitable e.g severe chronic wounds, re-current MRSA infection from invasive device insitu.

Low risk area.

The following areas at the time of writing the policy fall into low risk.

- Aske ward
- Edith Cavell ward
- ACU ward
- Cardiology
- Lamb ward.
- Lloyd ward.
- Acute rehab unit

Action to be taken on the identification of a case of MRSA.

- Basic control measure covered in 4.1 should be followed.
- The index case should be isolated in a single room on contact precautions if possible (see 4.5). This must be based on risk assessment on the advice of the infection control team. If the patient is not isolated in a single room then they must be nursed with contact precautions in place (trolley with protective clothing and alcohol hand gel at the end of the patient's bed).
- The patient should be started on decolonisation protocol (see 4.8) and screened weekly.
- Screening of other patients on the ward is not necessary unless advised by the infection control team.

Moderate risk area.

The following areas at the time of writing the policy fall into moderate risk.

- Starlight unit
- Templar ward and Turpin Suite

Action to be taken on the identification of a case of MRSA.

- Basic control measure covered in 4.1 should be followed.
- The index case should be isolated on contact precautions (see 4.5) in a single room
- The patient should be started on decolonisation protocol (see 4.8) and screened weekly.
- On identification of a case of MRSA the patients in the same bay should be screened for MRSA.
- Screening of other patients on the ward is not necessary unless advised by the infection control team

Special Considerations for maternity

- If a mum is identified as being colonised with MRSA, mum and baby must be isolated in a single room
- The mum should start on the MRSA decolonisation protocol immediately
- There are no restrictions on handling of the baby but mum must be advised on basic hygiene measures and hand washing
- If the baby is well with no open wounds they would not usually require any screening or treatment but this would be assessed on an individual case basis by the infection control and clinical team
- In some cases screening of baby maybe required especially if there are open wounds or sign of infection/inflammation at the umbilicus
- If the baby requires NICU or SCBU treatment they are screened as part of the NICU/SCBU admission screening protocol

High risk area.

The following areas at the time of writing the policy fall into high risk.

- Adult intensive care unit
- Halley ward
- Thomas Audley ward
- Priestley ward
- Neonatal intensive care unit/Special care baby unit

Action to be taken on the identification of a case of MRSA.

- Basic control measure covered in 4.1 should be followed.
- The index case should be isolated on contact precautions (see 4.5) in a single room (in the case of the NICU/SCBU babies maybe isolated in an incubator following risk assessment with the infection control team).
- The patient should be started on decolonisation protocol (see 4.8) and screened weekly on a Monday.
- On identification of a case of MRSA the patients in the same bay should be screened for MRSA.
- Other patients on the ward should be routinely screened weekly on a Monday.

Special Considerations for orthopaedics

As there is no dedicated ward for orthopaedic patients the following is recommended.

- Joint replacement patients should not be transferred off a surgical ward without this being discussed with Consultant whose care the patient is under and if required the infection control team.
- Other post-op orthopaedic or surgical patients who require transfer to medical and care of the elderly wards should follow the same criteria as that used and agreed for the orthogeriatric patients as they are at increased risk from MRSA. Patients will only be transferred from Day 4 post-operatively onwards (or when it is clear that superficial skin closure of the wound has happened – usually by Day 4). This decision will be made by the Orthogeriatric MDT.

4.5 MRSA positive non in-patients

- If a positive result becomes available and the patient has already been discharged the patient and their GP will be informed in writing (Appendix 4 and 5).
- If a positive result becomes available from an out-patient or A&E attendance the patient and their GP will be informed in writing (Appendix 4 and 5).
- Patients in the community will not generally require decolonisation protocol however in some circumstances it may be deemed suitable e.g severe chronic wounds, re-current MRSA infection from invasive device insitu.
- If a positive result becomes available on a maternity antenatal patient (not booked for elective C.section) the antenatal clinic will be informed and the patient offered 5 days of decolonisation protocol.
- If a positive result becomes available on a maternity postnatal patient the midwife looking after the patient will be informed (in addition to the GP) in order for risk assessment and appropriate advice to be provided.

4.6 In-Patient Contact Isolation Procedures

- The implications of MRSA colonisation, infection and treatment should be carefully explained to the patient and their relatives by the named nurse for that patient or infection control nurse (ICN). The ICN can be contacted to discuss the MRSA and implications if necessary. The MRSA leaflet (Appendix 2) available on all wards is a useful resource in this situation. Further copies can be obtained from the ICN.

- The patient should be isolated in a side room on contact precautions or contact precautions implemented in the bed space according to the risk category and as per care pathway (Appendix 3)
- Disposable aprons (yellow) and gloves should be worn by anyone having contact with the patient or their immediate environment. These should be removed when leaving the room or bed area and hand hygiene performed.
- Waste should be disposed in accordance with the Trust waste policy.
- Linen should be bagged up in a red alginate bag inside the room and transferred into a red linen bag outside.
- Masks are rarely necessary other than perhaps for procedures that may generate staphylococcal aerosols, such as sputum suction, chest physiotherapy.
- Visitors should wear aprons when entering the room but do not need to wear gloves unless assisting in care procedures (eg, doing dressings or helping with personal hygiene). Ward staff should advise accordingly. All visitors should be advised to perform hand hygiene when leaving the room.
- If the room has no toilet facilities a commode should be placed in the patients room or toilet facilities designated for their use.
- There should be dedicated bathroom facilities or the bath/shower disinfected by the nursing staff following use by a patient with MRSA.
- Any equipment e.g hoist slings, syphygmomanometers etc should be for dedicated use by MRSA patients. If this is not possible they must be disinfected with Tristel® solution.

4.7 Cleaning

All cleaning is carried out by the domestic staff and details are available in the environment and isolation Room Cleaning policy.

Daily cleaning (Source cleaning).

A sideroom (or bed area) that is used for isolation purposes should be damp dusted and disinfected with a Tristel® solution on a daily basis. Particular attention should be paid to the floor, all horizontal surfaces and bedframes. The cloth should be discarded after use. A dedicated mop and bucket is to be kept for the room for as long as the patient is in source isolation, with the mop stored in the upright position between uses. The mop head is to be removed and laundered at the time of the patient's discharge.

Terminal cleaning.

After a patient is discharged from isolation, the room (or bed area) should have a terminal clean. This is similar to the daily source clean, but should also include the removal and laundering of curtains. See the Policy for Isolation Cleaning for full details.

4.8 Management of MRSA positive health care workers

On identification of a MRSA positive health care worker (HCW) the ICN will liaise with the Employee Health department. Employee Health will be responsible for the follow up of the member of staff, this will assist in maintaining the HCW's confidentiality. A risk assessment will be performed to determine associated risks of the HCW remaining at work. It maybe necessary to remove the HCW from clinical duties, particularly if they work in a high risk clinical area. If a HCW is removed from clinical duties they maybe able to perform non-clinical work (e.g. audit work), this would be at the discretion of the unit/ward manager. The HCW should have an initial full screen performed as per 7.7. A history of any risk factors should be taken e.g. skin lesions or dermatological conditions. If these are present they should be referred to the appropriate department to treat the condition. They should then be provided with the decolonisation protocol (see 7.11) and given instruction on correct use. This should be used for 5 days, stop for 2 days and then return to Employee Health for repeat screen. Following the screen the eradication protocol should restart. If the screen result comes back negative the HCW may return to work (if excluded) and stop the protocol. They should return to Employee Health at weekly intervals for

a further 2 screens. If the staff member fails to clear Employee Health and the Infection Control Team will liaise in order to determine an individual treatment plan for the HCW.

4.9 Guidelines for the management of carriers Decolonisation “Protocol” for colonised patients.

DIAGNOSIS	SUGGESTED REGIMENS	
	PRIMARY	FURTHER INFORMATION
MRSA colonisation (Adults in-patients)	<p>1% chlorhexidine to anterior nares 4% chlorhexidine to be used as daily soap (applied neat to the body)</p> <p>4% chlorhexidine twice weekly shampoo.</p> <p>Use for 5 days, stop for 2 and then re-screen. Start on protocol immediately after screening.</p>	<p>If a patient has had a recent positive swab in the last 6 months and has not any subsequent negative screens they should be started on MRSA protocol following the admission screen. There is no requirement to wait for a result from the admission screening swabs prior to starting protocol.</p> <p>Protocol to continue until 3 consecutive weekly screens.</p> <p>If allergic or unable to tolerate chlorhexidine use Skinsan® daily for washing and Naseptin® nasally 4xdaily.</p>
MRSA colonisation (Adults Pre-admission)	<p>Chlorhexidine 4% body wash daily Chlorhexidine 4% hair wash twice in 5 days (starting on day1) Mupirocin 2% nasally three times a day</p>	<p>Mupirocin must not be used for prolonged periods due to risk of resistance. If the patient’s surgery is delayed at short notice they must stop the protocol and re-start 5 days prior to surgery when a revised date is available.</p>
MRSA colonisation (Paediatrics)	<p>Mupirocin 2% nasally three times a day Octenisan® topically daily</p> <p>Use for 5 days, stop for 2 and then re-screen. Start on protocol immediately after screening.</p>	<p>Octenisan® (0.3% octenidine)</p> <p>Nasal mupirocin should only be used for 2 courses of protocol due to risk of resistance.</p> <p>If further courses of protocol are required discuss with infection control team and consider the use of Naseptin® 4x daily</p>
MRSA colonisation (Neonates)	<p>Mupirocin 2% nasally three times a day</p> <p>Use for 5 days, stop for 2 and then re-screen. Start on protocol immediately after screening.</p>	<p>Octenisan® (0.3% octenidine) topically daily. This should be assessed against risk of MRSA and gestational age of babies by clinical team and infection control.</p> <p>Nasal mupirocin should only be used for 2 courses of protocol due to risk of resistance.</p> <p>If further courses of protocol are required discuss with infection control team and consider</p>

		<p>the use of Naseptin® 4x daily</p> <p>If the umbilicus is colonised consider using CX Powder® (Chlorhexidine 1%) up to 3 times daily until the site is healed</p>
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If patients develop any reactions or dry skin that is controlled by the use emollients then the infection control team should be contacted for advice and Dermal 500® maybe considered for topical treatment.

If a patient has had a recent positive swab in the last 6 months and has not any subsequent negative screens they should be started on MRSA protocol following the admission screen. There is no requirement to wait for a result from the admission screening swabs prior to starting protocol.

Decolonisation “Protocol” for colonised staff.

DIAGNOSIS	FURTHER INFORMATION	SUGGESTED REGIME
MRSA colonisation “PROTOCOL”	This will be dispensed by the Employee Health department on identification of a positive staff member via PGD. If working in a high or moderate risk area the staff member must stay off clinical duties until they have completed the course of protocol. If working in other areas advice will be given by the infection control team based on a risk assessment. If a staff member fails to clear MRSA then advice will be given by the infection control team.	<p>2% nasal mupiricin to anterior nares</p> <p>4% chlorhexidine to be used as daily soap (applied neat)</p> <p>4% chlorhexidine twice weekly shampoo.</p>

Throat carriage in patients and HCW.

- Throat carriage can be difficult to eradicate. If the organism is doing the patient no harm and the patient’s clinical management is not affected by the carriage of the organism, it may not be necessary to look at eradication.
- If eradication is indicated the National Guidelines suggest that systemic treatment is nearly always required. We advise our patients to gargle with Corsodyl® (contains 1% chlorhexidine) mouth wash, three times a day for the duration of protocol.
- If this is not successful systemic treatment of rifampicin with fusidic acid may be given for 5 days. This must only be considered on the advice of microbiology.

4.10 Treatment of MRSA Infections

All cases MUST be discussed with the microbiologists.

IV teicoplanin is our treatment of first choice in anything other than mild, localised infection. In septicaemias additional antibiotics may be given at the advice of the Microbiologist (depending on sensitivities). In common with other *S.aureus* septicaemias, if the source is known or thought to be IV line related, then remove the line and prescription of at least a two week course of a

suitable agent will be advised. This course duration is strongly recommended in order to reduce the incidence of post-septicaemic infective sequelae⁷. Longer courses may be advised in individual patients depending on their clinical details and response to treatment.

In patients with soft tissue, bone or joint infections, additional antibiotics may be given at the advice of the Microbiologist (depending on sensitivities). A prolonged treatment course may be required.

Most of our strains of MRSA are susceptible to nitrofurantoin and trimethoprim. Both of these are useful oral antibiotics for the treatment of genuine uncomplicated MRSA UTI's.

4.11 Transfer of patients colonised or infected with MRSA

Within the Hospital

- Before transfer, there should be a risk assessment as to whether the patient should be transferred to a sideroom for barrier nursing or whether the patient can be safely nursed on the open ward. If the patient's requirements are such that the open ward (by definition, not a High Risk ward) is essential, then the needs of the other patients in the recipient bay should be assessed.
- Are they at increased risk of infection (ulcers, catheters etc)?
- Should they be moved to another part of the ward?
- Some thought as to the method of transport should be given:
- Lesions should be covered if possible with an impermeable dressing.
- Attendants, (nurses and porters, if they are to have contact with the patient), should wear a disposable plastic apron and gloves. These should be removed, disposed of as clinical waste and hand hygiene performed once the transfer is complete.
- The trolley or chair should be wiped over with a 1,000ppm concentration of Chlor-Clean® solution or 70% alcohol, before being used for another patient. Particular attention should be paid to horizontal, dust collecting surfaces, particularly under the chair or trolley. Linen should be dealt with according to the Linen Policy. Staff should wash their hands thoroughly after cleaning the chair or trolley.

Transfer to another Hospital

The presence of MRSA should *never* be a barrier to appropriate clinical care. The presence of this organism should not be a reason for a patient to "block" a bed, whether in a tertiary referral centre or a Nursing Home. There should be positive communication between clinicians and ICT's of the referring and accepting organisations. Both teams should co-operate with the other, especially if time may be needed to identify a sideroom in a high risk receiving ward. Again, the clinical situation should not be compromised. Emergency transfers will have precedence over infection control issues. Even in this situation, please ensure that the ICT are aware of the transfer.

The medical and nursing staff must inform the receiving clinical area and staff of the patients MRSA status before transferring the patient.

MRSA is endemic in all Health Care Units in the South-East and in Community and Residential Homes. Screening, and if appropriate, isolation on arrival is of far more benefit to the patient, than the unnecessary delay imposed when a transferring Unit has to screen the patient, process the swabs and fax reports to the receiving Unit, before the patient is moved. This process does not guarantee the patient as being free from MRSA, as they might well acquire it *after* swabbing.

4.12 Out-patients, specialist departments and diagnostic testing departments.

Movement outside the ward should be restricted if possible and patients seen on the ward if an in-patient. In anything other than an emergency, prior arrangements with the of the receiving department and portering staff should be made in advance before the MRSA positive patient is sent for their X-ray or Outpatient appointment

The following principles apply to all departments:

- 1) see the patient at the end of the session (if possible particularly in high risk environments where invasive procedures are informed.).
- 2) do not keep the patient waiting but send for the patient when the department is ready, thus limiting the time the patient is kept waiting with other patients.
- 3) staff requiring clinical contact with the patient should wear gloves and aprons. Hand hygiene should be emphasised.
- 4) surfaces with which the patient has been in contact should be wiped over with a 1000ppm Chlor-Cleanb® solution. The department should be cleaned routinely at the end of the working day. There is no need to ask the Domestic staff for a terminal clean, unless the patient is known to pose a particular risk (heavy skin shedder for instance.)
- 5) linen should be treated according to the Linen Policy
- 6) transport should be arranged as already described above and informed of the precautions required.

Foot health clinics in out-patients and community settings

Foot Health patients known to be MRSA positive who require cast removal and/or likely to be heavy shedders due to dressing changes should be seen in a dedicated room for all their dressing/plaster removal and change. In the hospital outpatients this is done with the approval of out-patient clinical leaders. This is to reduce the movement of the patient in out-patients, thereby reducing the risk of environmental contamination as well as free up the Foot Health clinic for continued use. The room where the procedure has taken place must then be terminal cleaned by domestic services prior to being used by another patient.

Orthopaedic and Dermatology Outpatients

Because of the especial risk of these particular patients acquiring or becoming infected with MRSA, it is strongly recommended that the Specialist attends the MRSA positive patient in the Ward if at all possible and for as long as the patient remains an in-patient. If the patient does need to visit the clinics they should be seen at the end of the list to assist in thorough cleaning of the area before other patients.

Ambulance transport

The following considerations should apply

- the ambulance staff should be notified in advance by the ward staff of the patient's carrier state.
- there is no evidence that ambulance staff or their families are put at risk by transporting MRSA positive patients.
- to minimise transfer of MRSA to other patients who may be carried in the same vehicle, the ambulance staff should practise good infection control. In the absence of handwashing facilities in the ambulance, an alcohol hand rub solution should be used after handling any patient.
- most MRSA positive patients can be transported with others in the same vehicle without special precautions other than changing the bedding after carriage. If an MRSA patient poses particular problems, e.g. a heavy disperser, or an infected lesion that cannot be covered, then the ICT should be informed. Arrangements may have to made to transfer the patient alone and for ambulance staff to wear gloves and aprons.

- disinfection of the equipment etc with 70% alcohol that the patient has been in contact with in the ambulance is required after transport.

4.13 Elective admission Screening Screening Process

- The screening policy of elective admissions for the Homerton is based on the 2008/09 Operating Framework.
- All elective surgical admissions will be screened pre-admission in the pre-admission clinics. Elective caesarean patients will be screened in antenatal when the ELSCS is booked (approximately 2-3 weeks prior to procedure)
- The only groups of patient not included in this are as below.
 - Day case ophthalmology
 - Day case dental
 - Day case endoscopy
 - Minor dermatology procedures, eg, warts or other liquid nitrogen applications
 - Children/paediatrics unless already in a high risk group
 - Maternity/obstetrics except for elective caesareans and any high risk cases, i.e. high risk of complications in the mother and/or potential complications in the baby, (e.g. likely to need SCBU, NICU because of size or known complications or risk factors.) Including ToP procedures.
- Screening will take place in the following clinic areas
 - Pre-admission one stop clinic for all surgical cases or patients referred there for screening.
 - Gynaecology pre-admission clinic for some gynaecology procedures.
 - Paediatric out-patients clinic when highlighted as high risk cases.
 - Antenatal clinic for elective caesarean sections at the point of booking the procedure.
 - Medical day unit will screen those patients who have been referred directly to them on admission and the regular attenders on a monthly basis on the unit.
 - Any other staff who are booking elective admission for patients must either screen the patients at the point of booking or refer the patient to the surgical centre.
 - If the patient has not been to the Homerton prior to the elective admission as part any pre-admission they must be screened on the day of the elective admission.
- Screening will consist on a nose, throat and groin swab. If patients have wounds these should also be screened.

Results

- Positive results will be communicated to the infection control nurses who will inform the pre-admission clinic staff, the patient's medical team and GP (in writing- Appendix 4).
- The clinic staff will contact the patient and assess the patient's ability to apply the decolonisation protocol. If the patient is deemed able to comply they will collect the TTA pack from the pre-admission clinic with an MRSA information leaflet and protocol instructions. A PGD has been developed in order for staff to give the decolonisation protocol out. If the patient is unable to apply the protocol the patient's GP must be informed and district nurse referral made to administer protocol.
- Positive maternity and paediatric results will be communicated to the delivery suite and Starlight OPD as appropriate and will be followed up by the staff in those clinics as per protocol.

- Orthopaedic joint replacement patients pre-assessed by the orthopaedic teams will be follow up by the orthopaedic nurse practitioners.
- The decolonisation protocol should be started 5 days prior to the day of surgery and used on the day of day surgery.
- The start date will be inserted by the clinic staff on the instruction leaflet (Appendix 5) as a reminder for the patient.
- In some cases a decision maybe made to delay surgery until negative screens have been obtained (e.g high risk orthopaedic implant surgery). If this decision is based on clinical or patient preference the AGM for DSO must be informed immediately.
- If a result is not available prior to a surgery the patients risk of being colonised with MRSA based on the following risk criteria must be assessed. If the patient is at high risk of being colonised then Decolonisation protocol maybe used prior to surgery with antibiotic prophylaxis.
 - if they have been previously positive for MRSA
 - been an in-patient in the last 12 months
 - are a health care worker (those who work in a hospital including volunteers, & workers in nursing/residential homes)
 - admitted from another hospital or nursing home.

Pre-operative Decolonisation protocol

See 4.8

Refusal to use decolonisation protocol

If a patient declines to use the decolonisation protocol this will be managed on an individual case basis. A risk assessment should be performed on the type of surgery and urgency and all risks discussed with the patient and documented.

Admission and surgery of all MRSA positive cases

- On admission the patient must be admitted directly to an in-patient ward and single room on, prescribed the in-patients decolonization protocol and theatres made aware of the patient's MRSA status.
- If the patient has not taken the decolonisation protocol then a risk assessment will need to be performed on urgency of surgery and risk of infection. The recommendation would be that for orthopaedic patients surgery is delayed until the patient has completed 5 days of suppression therapy. If surgery does go ahead for other patient groups then the patient must use the decolonisation protocol on the day of surgery.
- Prior to transfer to the Theatre suite, the following measures should be followed.
 - if the patient is high risk such as a skin shedder (with eczema or psoriasis) put the patient at the end of the list. This will allow staff more time to comply with the relevant cleaning procedures for the theatre.
 - cover affected lesions with an impermeable dressing.
 - apply protocol prior to surgery.
 - add IV teicoplanin 400mg to the routine prophylaxis at induction.
 - allow the patient to recover in operating theatre if time and staff allow, to reduce contamination of the recovery area. If this is not possible a risk assessment should be performed considering, sites colonised, if the patient is a heavy shedder, patient placement in recovery.
 - if the patient is recovered in recovery area the bed space area should have a deep clean and curtain change before admitting another patient into the area.
 - theatre surfaces in close contact or near the patient should be disinfected according to the Theatre cleaning policy. Particular attention should be paid to the operating table, instrument trolley, patient's trolley and bed.

5 Training and awareness

All Infection Prevention and Control training sessions contain a section on MRSA management. Infection Prevention and Control training is part of the trust mandatory training programme contained in the Trust Mandatory training Policy available at:

http://homertonlife/uploaded_files/Policies_and_guidelines/mandatory_training_policy.doc

Managers are responsible for identifying staff training requirements, booking and following up attendance/non attendance of Infection Control mandatory training. Identification of what training staff require can be found in Appendix 3 of the Trust mandatory training policy:

http://homertonlife/uploaded_files/Policies_and_guidelines/mandatory_training_policy.doc

6 Monitoring/Audit

Measurable Policy Objective	Monitoring/Audit	Frequency of monitoring	Responsibility for performing the monitoring	Monitoring reported to which groups/committees, inc responsibility for reviewing action plans
<p>All emergency admission (excluding maternity and paediatrics) should be screened within 24 hours of admissions.</p> <p>All elective patients (excluding those in section 4.12 on page 12) should be screened prior to admissions</p>	<p>Screening reports on winpath are matched with appropriate patient admissions on EPR to determine if the patient was screened pre-admission or on admission as appropriate.</p>	<p>Monthly</p>	<p>Information team produce monthly reports</p>	<p>Ward sisters and unit managers responsible for following up results and lead/senior nurses for action plans within divisions.</p>

References / Bibliography

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Working party report. Revised methicillin-resistant *Staphylococcus aureus* infection control guidelines for hospitals. *J Hosp Infect* 1998.

Working party of the British Society for Antimicrobial Chemotherapy. Antibiotic treatment of streptococcal, enterococcal and staphylococcal endocarditis. *Heart* 1998;**79**: 207-210.

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http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_086687?IdcService=GET_FILE&dID=170026&Rendition=Web

Appendix 1

List of all staff consulted as part of policy development

Dr Alleyna Claxton (ICD/DIPC/Consultant Microbiologist)
Dr Daniel Krahe (Consultant Microbiologist)
Monique Laberinto (ICN)
Gema Martinez-Garcia (ICN)
Dr John Coakley (Medical Director)
Charlie Sheldon (Chief Nurse)
Dr Chris Griffiths (NED)
Andrew Panniker (Director of Environment)
Jenny Frost (Divisional Senior Nurse CWS)
Louise Olley (Divisional Senior Nurse GEM)
Rachael Halliday (Divisional Senior nurse DSO)
Sarah Addiman (Health Protection Team representative)
Diane Goodenough (Risk manager)
David Bridger (Head of Governance)

Appendix 2

Discharge

Patients with MRSA can go home when they feel well enough and the doctors are satisfied with their recovery. There is no need for any special precautions. However, it is important to continue good personal hygiene. If you live with someone who may be vulnerable due to open wounds, skin conditions such as eczema or some who is going to be having an operation soon, please ask for advice or discuss this further with the Infection Control Nurses. Please remember, if you are going to see your GP or coming back into hospital you should inform staff that you have had MRSA so that you can be re-tested.

Prevention of MRSA

The hospital has a detailed plan for patients with MRSA, which includes:

- staff wearing gloves and aprons when caring for patients with MRSA
- staff following strict hand washing with alcohol gel or soap and water when looking after infected patients
- staff routinely swabbing patients on admission to hospital
- cleaning of bed spaces and isolation rooms where patients with MRSA have been nursed.

Advice and Information

Advocacy

We have an in-house health advocacy service for patients and carers who do not speak or read English.

Patient Advice and Liaison Team (PALS)

PALS can provide information and support to patients and carers and will listen to your concerns, suggestions or queries. Leaflets are available on the wards.

Useful Contacts

If you have any further queries in relation to MRSA or infection control and prevention please ask one of the nursing staff to contact one of the infection control nurses or contact 020 8510 7557 directly.

Further information including all hospitals' MRSA rates can also be obtained from the Health Protection Agency website www.hpa.org.uk

Homerton University Hospital NHS Foundation Trust
Homerton Row, Hackney, London, E9 6SR
T 020 8510 5035
w www.homerton.nhs.uk

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Homerton 
University Hospital
NHS Foundation Trust

Methicillin resistant Staphylococcus aureus (MRSA)

What is MRSA?

MRSA stands for methicillin resistant Staphylococcus aureus. Staphylococcus aureus is a bacteria or germ. MRSA is resistant to some antibiotics – such as penicillin. This means that many commonly used antibiotics will not work against MRSA.

How is it spread?

MRSA can be found in the nose and on the skin of some normal healthy people without developing an infection. This is known as being 'colonised'. If, however, the bacteria gets into the body through a break in the skin it can cause infection, commonly skin infections and boils. It is spread through direct contact, usually through vulnerable sites on the body, for example through wounds, catheters or intravenous lines/drips.

What are the symptoms?

Most people with MRSA who are 'colonised' feel fine, have no symptoms and will not need any treatment. If, however, MRSA causes an infection, the symptoms can include:

- boils and abscesses
- fever
- chest or urine infections
- skin infections

MRSA can affect anyone, but normally causes problems for people who are already unwell as they are more vulnerable to infections.

Hospitals have large numbers of patients who are unwell and vulnerable to infections, which is why it is more common to develop MRSA in hospital.

Screening for MRSA

To help control the spread of MRSA you may be screened on admission to the hospital or in the pre-assessment clinic. This involves taking swabs from the nose, throat and groin area and sending to the laboratory to test if MRSA is present. This is a painless procedure. If the swabs are positive and you are not yet in hospital you will be contacted and if necessary arrangements will be made for you to have treatment before being admitted. If you are in hospital, you will be given treatment and you may be moved to an isolation area.

How is it treated?

If you have tested positive for MRSA but with no signs of infection – this is known as being 'colonised' – you will be asked to:

- wash your body and hair every day with an antibacterial soap
- put an antibacterial gel inside your nose three times a day
- have swabs taken every week to see if MRSA is still there. This will continue throughout your hospital stay or until you have had three sets of consecutive negative swabs.

If you have tested positive for MRSA and have signs of an infection you will also be prescribed antibiotics, commonly given via an intravenous drip.

Preventing spread of MRSA

If you have been diagnosed with MRSA:

- You may be moved to a side room, however, in some cases you may remain on the ward in a bay area.

This decision is taken by the Infection Control Nurses and will depend on the risks to you, other patients and visitors.

- You will need to make sure you follow your treatment plan.
- You will need to maintain good personal hygiene.

You do not represent a particular risk to healthy people including babies and pregnant women, so you can continue to have visitors.

Visiting someone with MRSA?

If you are visiting someone in hospital who has MRSA:

- It is important that you clean your hands with the alcohol hand gel when entering and leaving the ward or side room. You will find this at every ward entrance.
- If you are helping in the care of the patient, for example with a dressing, you should wear gloves and an apron. Nursing staff will advise you on this.

MRSA CARE PATHWAY

Patient name.....
 Hospital Number.....
 Date of Specimen.....

- 1) Inform the patient that they are colonised/infected with MRSA, give reassurance and a patient information leaflet.
- 2) If the patient is on:
 A **surgical ward** then isolate them in a sideroom.
 A **elderly care/rehab/medical ward** then isolate them in a sideroom if possible, if not then cohort nurse them on contact precautions (trolley with gloves, aprons and alcohol hand gel).
- 3) Implement **CONTACT PRECAUTIONS** – yellow isolation card.
- 4) Aprons and gloves to be worn by all staff having patient contact and removed and hands washed/gelled before leaving the room/bed space.
- 5) Linen must be bagged in the room/bed space into an alginate dissolve bag. On removal from the room it should then be placed in a red plastic linen bag. Waste must be discarded into an orange clinical waste bag
- 6) Equipment should not be for communal use and stay inside the room/bed space. If removed they should be disinfected with Tristel® solution (Chlorine Dioxide).
- 7) A source isolation clean should be done daily by the domestic.
- 8) Visitors do not need to wear protective clothing for social contact, but should wash their hands when leaving the room.
- 9) Administer MRSA protocol as per Policy and per prescription
 - a. Chlorhexidine gel three times a day and 4% chlorhexidine washes daily, hair wash twice a week. For 5 days.
 - b. Break for 2 days and re-screen.
 - c. Restart protocol as in a) and repeat process until patient has had 3 negative consecutive negative results from all sites.
- 10) Screen sites include - nose, throat and perineum and any clinical sites (CSU, sputum, wounds).
- 11) This should continue until the patient has had 3 weekly consecutive negative screens or discharged.
- 12) If the patient requires more frequent screening then please contact the infection control nurses
- 13) Observe any wounds for clinical signs of infection and inform medical staff if suspected.
- 14) Remove and review invasive devices e.g catheters or IV lines as these increase risk of invasive infection.
- 15) Record the MRSA screen results.
- 16) If transferring the patient to another hospital, ward or department, they must be informed of the patient's MRSA status.
- 17) On discharge, contact the Domestic Supervisor for a terminal clean of the room.
- 18) On discharge most patients would not require protocol however in some cases where the patient is at high risk of developing infection the protocol may continue at home – contact the ICNs for advice.

Date	Screen Result	Date	Screen Result

Appendix 4

Homerton University Hospital 
NHS Foundation Trust

Homerton University Hospital
Department of Clinical Microbiology
Homerton Row
London E9 6SR

Microbiology SpR tel: 020 851 5143
Or bleep 092 via Switch 020 8510 5555h
Fax: 020 8510 7183

Infection Control Nurse tel: 020 8510 7557
Or bleep 205 via Switch 020 8510 5555

Dear Dr

**Re: Patient Name / DOB
Address**

A swab was taken on from the above named patient during their inpatient stay/attendance at Homerton University Hospital. We are writing to inform you that, the result has come back as **MRSA positive** from the following swab:

Site of specimen:

This information is intended to update GP records and to guide GP's in appropriate management of skin/soft tissue infections in future. Please contact Microbiology SpR on the above number if there is clinical evidence of infection to discuss patient management.

If you would like to obtain advice for infection control management of the patient in the community, please contact your Infection Control provider.

If the patient is due to be readmitted to the Homerton in the near future and you would like to obtain Infection Control advice related to the readmission, please contact the Homerton Infection Control Team (contact details above).

Yours sincerely

.....
Infection Control Nurse

Appendix 5

Homerton University Hospital 
NHS Foundation Trust

Homerton University Hospital
Department of Clinical Microbiology
Homerton Row
London E9 6SR

Infection Control Nurse tel: 020 8510 7557
Or bleep 205 via Switch 020 8510 5555

Dear

While you were a patient or attending an appointment at Homerton Hospital a swab was taken onfor MRSA. We are writing to inform you that the result has come back as MRSA positive from the following swab:

Site of specimen:

Please find enclosed a patient information leaflet explaining what MRSA is. If you have any concerns or questions please contact the your GP or Homerton Infection Control Nurses on the number above

If you are due to be readmitted to the Homerton in the near future please inform the staff that you have had a positive MRSA result in the past.

Yours sincerely

.....
Infection Control Nurse

Appendix 6

Homerton University Hospital 
NHS Foundation Trust

Homerton University Hospital
Department of Clinical Microbiology
Homerton Row
London E9 6SR

Microbiology SpR tel: 020 851 5143
Or bleep 092 via Switc020 8510 5555h
Fax: 020 8510 7183

Infection Control Nurse tel: 020 8510 7557
Or bleep 205 via Switch 020 8510 5555

Dear Dr

**Re: Patient Name / DOB
Address**

The above patient has been screened for MRSA at Homerton University Hospital in the pre-admission clinic on the

We are writing to inform you the result has come back as positive from the following swab

The patient will be provided with decolonisation protocol and advice by the Homerton prior to admission to reduce the risk of contamination at the time of surgery and given appropriate antibiotic prophylaxis. This will reduce the risk of the patient developing post operative MRSA infection but will not eliminate the risk. Therefore any presentation with infections should consider the possibility of MRSA being the causative organism.

If you would like to obtain antibiotic advice for treatment of infections, please contact either the Microbiology SpR (contact details above).

Yours sincerely

.....
Infection Control Nurse

Appendix 7 – Instruction sheet for suppression protocol pre-admission

Dear patient,

The results from the MRSA swabs taken in the pre-admission clinic are positive. As a result we recommend that you use a suppression protocol prior to your surgery. The aim of the protocol is to reduce the amount of bacteria present prior to surgery. This will reduce the risk of MRSA on your body being introduced into the wound or site of surgery. In addition to this you will be given an antibiotic at the time of surgery to also reduce the risk of MRSA infection. The suppression protocol must be used 5 days prior to your surgery. If you are unable to do this it is essential that you contact the pre-admission clinic and discuss this with a member of staff.

Your booked date of surgery is

You should start the protocol on

On the day you start the protocol it is advisable to change bed linen, towels and wear newly washed items of clothing to increase the benefits of using the suppression protocol.

The protocol consists of using the following –

Chlorhexidine body wash daily.

This should be applied to the body neat paying particular attention to groin and armpits, left for 1 minute and then rinsed off.

Chlorhexidine hairwash twice in the 5 days.
Used as a shampoo.

Mupirocine nasal cream.

This should be applied 3 times a day into each nostril. A small amount of the ointment about the size of a match head is placed on the little finger and applied to the inside of each nostril. The nostrils are closed by pressing the sides of the nose together; this will spread the ointment throughout the nose. A cotton bud may be used instead of the little finger for the application. You may be able to taste the cream at the back of your throat.

On admission to hospital please advise staff that you have had MRSA positive swabs and if you have taken the protocol accordingly.

If you require any further advice on this or have any queries please contact one of the infection nurses on 02085107557.

Many thanks

Appendix 8

Equalities Impact Assessment

This checklist should be completed for all new Corporate Policies and procedures to understand their potential impact on equalities and assure equality in service delivery and employment.

Policy/Service Name:	MRSA Policy
Author:	Vickie Longstaff
Role:	Nurse consultant
Directorate:	DSO
Date	8th February 2011

Equalities Impact Assessment Question	Yes	No	Comment
1. How does the attached policy/service fit into the trusts overall aims?	Yes		Compliance with health and social care act 2009, DH MRSA reduction strategy and reduced incidence of HCAI
2. How will the policy/service be implemented?			Education and dissemination of information. Advice from infection control team.
3. What outcomes are intended by implementing the policy/delivering the service?			Reduced risk of patients acquiring MRSA and developing infection
4. How will the above outcomes be measured?			Surveillance systems in place for MRSA colonisation and bacteraemia
5. Who are they key stakeholders in respect of this policy/service and how have they been involved?			Infection control committee given opportunity to comment
6. Does this policy/service impact on other policies or services and is that impact understood?		NO	
7. Does this policy/service impact on other agencies and is that impact understood?		No	
8. Is there any data on the policy or service that will help inform the EqIA?		No	
9. Are there are information gaps, and how will they be addressed/what additional information is required?		No	

Equalities Impact Assessment Question	Yes	No	Comment
10. Does the policy or service development have an adverse impact on any particular group?		No	
11. Could the way the policy is carried out have an adverse impact on equality of opportunity or good relations between different groups?		No	
12. Where an adverse impact has been identified can changes be made to minimise it?		N/A	
13. Is the policy directly or indirectly discriminatory, and can the latter be justified?		No	
14. Is the policy intended to increase equality of opportunity by permitting Positive Action or Reasonable Adjustment? If so is this lawful?		N/A	

EQUALITIES IMPACT ASSESSMENT FOR POLICIES AND PROCEDURES

2. If any of the questions are answered 'yes', then the proposed policy is likely to be relevant to the Trust's responsibilities under the equalities duties. Please provide the ratifying committee with information on why 'yes' answers were given and whether or not this is justifiable for clinical reasons. The author should consult with the Director of HR & Environment to develop a more detailed assessment of the Policy's impact and, where appropriate, design monitoring and reporting systems if there is any uncertainty.

3. A copy of the completed form should be submitted to the ratifying committee when submitting the document for ratification. The Committee will inform you if they perceive the Impact to be sufficient that a more detailed assessment is required. In this instance, the result of this impact assessment and any further work should be summarised in the body of the Policy and support will be given to ensure that the policy promotes equality.

Policy Submission Form

To be completed and attached to any policy or procedure submitted to the Trust Policy Group

1	Details of policy	
1.1	Title of Policy:	MRSA Policy
1.2	Lead Executive Director	Chief Nurse and Director of Governance
1.3	Author/Title	Vickie Longstaff – Infection Control
1.4	Lead Sub Committee	Infection control committee
1.5	Reason for Policy	To provide clear information on procedures to be followed to reduce risk of MRSA
1.6	Who does policy affect?	All emergency and elective patients admitted.
1.7	Are national guidelines/codes of practice incorporated?	Health and Social care act 2008. Department of health High Impact Interventions. Department of Health screening requirements
1.8	Has an Equality Impact Assessment been carried out?	Yes
2	Information Collation	
2.1	Where was Policy information obtained from?	National guidance
3	Policy Management	
3.1	Is there a requirement for a new or revised management structure if the policy is implemented?	No
3.2	If YES attach a copy to this form	N/A
3.3	If NO explain why	Clinical practice
4	Consultation Process	
4.1	Was there internal/external consultation?	Both – see appendix 1
4.2	List groups/Persons involved	Infection Control Committee – see appendix 1

4.3	Have internal/external comments been duly considered?	Yes
4.4	Date approved by relevant Sub-committee	
4.5	Signature of Sub committee chair	
5	Implementation	
5.1	How and to whom will the policy be distributed?	All clinical staff via infection control newsletter and will be posted on intranet
5.2	If there are implementation requirements such as training please detail?	Included in all infection control training for medical staff
5.3	What is the cost of implementation and how will this be funded?	None
6	Monitoring	
6.1	List the key performance indicators e.g. core standards	Health and Social Care Act 2009 – Code for reducing HCAI in the NHS
6.2	How will this be monitored and/or audited?	Information team reports
6.3	Frequency of monitoring/audit	Monthly

Date policy approved by Trust Policy Group:

..... 15/08/2011

Signature of Trust Board Group chair:

..... 