Infection Prevention and Control

Policy for Meticillin Resistant *Staphylococcus aureus* (MRSA) screening.

**December 2010**

Ratifies: Infection prevention and control committee

Review date: December 2012
Contents

1. Introduction 3
2. Screening regimes 3
   2.1 Emergency admissions 3
   2.2 Patients not included in mandatory screening 4
   2.3 High risk patient screening 4
   2.4 Elective admissions 4
3. What to screen 4
4. When not to screen 4
5. Inter-hospital transfers 5
6. Known MRSA positive patients 5
7. Newly identified MRSA positive patients – inpatients 5
   7.1 Notification of positive MRSA status 5
   7.2 Responsibilities of ward doctor and ward sister/charge nurse 5
   7.3 Responsibilities of nurse in charge 5
8. Newly identified MRSA positive patients – pre-admission/out-patients 5
9. Pre-operative screening 5
10. The Elective Surgical Admissions Ward (David Evans) 5
11. Regular Day Attendees 6
12. Transfers to other NHS healthcare facilities including residential care homes 6
13. Discharge screening 6
14. Decolonisation regimen 6
   14.1 Introduction 6
   14.2 Decolonisation regimen 6
      14.2.1 Mupirocin Sensitive MRSA 6
      14.2.2 Mupirocin Resistant MRSA 7
   14.3 Decolonisation for different patient groups 7
      14.3.1 Newly identified MRSA carriers 7
      14.3.2 Pre-operative for known MRSA carriers 7
      14.3.3 Other known MRSA carriers 7
      14.3.4 Decolonisation on discharge 7
      14.3.5 Post decolonisation follow-up for Inpatients 7
      14.3.6 Day Surgery and Short Stay 7
      14.3.7. MRSA positive patients who have central lines, Hickman lines, PICC lines in situ 7
15. ITU screening and topical decolonisation programme 8
16. Staff screening 8
   16.1 Management 8
   16.2 Staff decolonisation treatment 8
   16.3 Follow-up of MRSA positive staff 8
17. MRSA Screening Data 8
18. References 8

Appendices
Appendix 1: Statement of Declaration on MRSA Screening for all Emergency, Daycase and Electively Admitted Patients 10
Appendix 2: Prescription for MRSA Decolonisation Protocol Mupirocin (Bactroban®)-Sensitive 12
Appendix 3: Prescription for MRSA Decolonisation Protocol Mupirocin (Bactroban®)-Resistant 13
1. **Introduction**

The Health and Social Care Act (2008)(updated Dec2010) requires all NHS bodies to minimise the risk to patients. Screening for MRSA and active decolonisation is a prime consideration in meeting these standards.

The initial commitment to introducing MRSA screening was stated in the 2008/09 and subsequent 2009/10 Operating Frameworks:

"Meeting the challenge of HCAI will require additional actions across the system… from April 2009, all elective admissions must be screened for MSRA in line with Department of Health guidance… extended to cover emergency admissions as soon as possible and definitely no later than 2011."

This was followed up in the 2010/11 Operating Framework which stated it’s commitment to introduce screening of relevant emergency admissions for MRSA.

"NHS providers and commissioners should ensure that: (they) screen all relevant emergency admissions for MRSA as soon as possible – and definitely by 2011."


Existing guidance includes:
  http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalletters/Chiefmedicalofficerletters/DH_063138

Operational guidance 2 (December 2008) (Elective Admissions)
http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_092844

MRSA screening - Operational guidance 3 (Emergency admissions)
http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/@dh/@en/documents/digitalasset/dh_1

The following trust policy statements implement the guidance and mandates listed above. The statement of declaration (Appendix 1) is uploaded onto the Trust webpage

2. **Screening regimens**

From 30th December 2010 all admissions to inpatient wards/units will be screened for MRSA – both elective and emergency with some exceptions (listed below). This is in line with Dept of Health guidance.

2.1 Emergency admissions

- All emergency admissions via Emergency Department and Acute Assessment Unit (AAU) must be MRSA screened.
- Emergency admissions via Medical Day Unit (MDU), or Outpatient Departments must be MRSA screened in these areas prior to admission to the ward.
- On the wards these patients will be nursed with standard precautions in bays, unless they are at high risk of being MRSA positive (see section 2.3).
- The MRSA positive microbiology result will be phoned through to the ward/unit by the Infection Prevention and Control Team (IPCT). They will risk assess the endogenous and exogenous cross infection risks to the patient and will advise on the infection control management of the patient.
- The IPCT’s advice will take into account the comparative cross infection risk the patient poses to him/herself and to other patients, the availability of isolation facilities and the location of the patient:
  - MRSA+ patients with flaky skin conditions e.g. eczema, psoriasis must always be isolated in side rooms because the cross infection risk to other patients is high.
  - Patients who are MRSA+ with wounds in surgical wards must always be isolated.
  - Patients with wounds in medical wards should ideally be isolated in side-rooms. If this is not possible strict isolation contact precautions must be taken in the bay to
minimise cross infection. This decision will be taken by the IPCT during normal working hours and by the Clinical Site Managers out of hours.

- Patients who are MRSA+ in their NAG (noses and groin) screens with no other risk factors in medical wards should ideally be isolated in side rooms. If this is not possible strict isolation contact precautions must be taken in the bay to minimise cross infection. This decision will be taken by the IPCT during normal working hours and by the Clinical Site Managers out of hours.

2.2 Patients not included in Mandatory MRSA screening
The following patient groups are the exceptions:
- Day case ophthalmology (unless in high risk group)
- Day case dental (unless in high risk group)
- Day case Endoscopy (unless in high risk group)
- Minor dermatology procedures, e.g., warts or other liquid nitrogen applications
- Children/paediatrics Maternity/obstetrics except for elective caesareans
Termination of pregnancy cases (unless in high risk group).

2.3 High risk patient screening:
The following patients are at higher risk for MRSA acquisition and must be screened:
- All paediatric and maternity admissions to ICU / PICU, Neonatal Unit, and Burns Unit
- All paediatric and maternity transfers from ICU, Neonatal Unit and Burns Unit.
- Paediatric and maternity transfers from wards where MRSA outbreaks are suspected (usually on recommendation from the Infection Control Team or Clinical Microbiologist)
- Paediatric and maternity transfers from other hospital in the UK or abroad (excluding patients transferred directly from another hospitals A&E)
- Paediatric and maternity patients who have had previous hospital admissions for one or more nights (>24hrs) in the UK or abroad.
- Any paediatric and maternity patient who is known to have been infected or colonized with MRSA in the past.
- Paediatric and maternity residents of residential care facilities.

2.4 Elective admissions:
All elective admissions must be screened pre-admission. See Section 9 for details.

3. **What to screen**
Screen swab/specimen requirements:
- Nose AND Groin (NAG) screen using the one swab technique:
  - Swab the nose, dip swab briefly into transport medium prior to swabbing the anterior nares of both nostrils. Gently insert swab into anterior nares (just inside the nostril) perform circular movement x3 and repeat in other nostril. Use the same swab for both sides of the groin.
  - CSU if catheterised;
  - IV infusion site swab; (including CVC site, or other invasive device site)
  - Wound(s) swab;
  - -Other i.e. eczematous skin lesions
  - Sputum if the patient has a productive cough
  - Umbilicus in all neonates

4. **When not to screen:**
- During topical eradication regimen and for 2 days after.
- During treatment, and for 2 days after completing treatment, with antibiotics to which the MRSA is sensitive: (Excepting routine periodic ITU screening)
  - Glycopeptides – Teicoplanin or Vancomycin.
  - Linezolid.
  - Rifampicin, Fucidin, Trimethoprim and Doxycycline.
5. **Inter-hospital transfers**
Patients transferred from other hospitals or healthcare facilities must have a full screen (NAG, wounds and any invasive device e.g. peripheral line, catheter). Ideally inter-hospital transfers will be admitted into a side-room, risk assess with the Infection Control Team if a side-room isn’t available. Standard contact precautions should be implemented.

6. **Known MRSA positive patients**
MRSA positive patients should be isolated whenever possible. Where it is not possible liaise with the Infection Control Team. Screen on admission and discuss further screening frequency with the Infection Control Team.
Once a patient has 3 clear **complete sets** of screens, each set 1 week apart, isolation may be discontinued only in liaison with the Infection Control Team.

7. **Newly identified MRSA positive patients - inpatients**
   7.1. **Notification of positive MRSA status**
   The infection control team will notify the nurse in charge or the nurse caring for a newly identified patient with MRSA. If an MRSA infection is suspected the clinical microbiologist will contact the appropriate ward doctor. Out-of-hours results will be reported by the on-call clinical microbiologist.

7.2. **The ward doctor and ward sister/charge nurse are responsible for:**
   a) Informing all staff who are involved in patient care: nurses, doctors, nursing and medical students, therapists;
   b) Informing the patient of MRSA status and what this means to them individually with regard to isolation, treatment (or not), family, discharge planning and any other relevant issue as raised by the patient.
   c) Explaining isolation procedures to porters, domestic and works department staff who have contact with the patient of isolation precautions.
   d) Commencing topical decolonisation once agreed with the Infection Control Team.
   e) The doctor should review any antibiotic therapy and modify as necessary following discussion with a microbiologist.

7.3. **The nurse in charge is responsible for:**
   - Ensuring isolation of positive patients in liaison with the bed manager/site manager.
   - Arranging terminal clean and curtain change of the patients’ bed space.

8. **Newly identified MRSA positive patients- pre-admission/out-patients**
Out-patients and pre-admission patients identified with MRSA must be informed by the staff who arranged for the screening to occur. The medical staff in these areas are responsible for prescribing the MRSA decolonisation protocol.

9. **Pre-operative screening.**
Elective admissions must be screened pre-operatively in the Outpatient Clinic. Patients must be screened within 3 months prior to surgery, ideally 2 weeks before admission for elective surgical admissions. If the patient has a hospital admission within that time period they must be screened ideally in advance of admission, if not-on the day of admission. If a patient is not screened within 3 months prior to admission re-screen prior to admission if possible if not screen on admission and take isolation precautions.

10. **The elective surgical admissions ward** (David Evans Ward)
MRSA positive patients are not to be admitted, or managed on the elective surgical admissions ward.
11. **Regular day attendees**
Patients who regularly attend the hospital as day cases e.g.; chemotherapy, pentamidine nebulisation therapy, dermatology, radiological attendees, should be screened at the beginning of their treatment and then monthly thereafter until their treatment period ends.

12. **Transfers to other NHS healthcare facilities including residential care homes**
Screening prior to discharge is not routine. However, the infectious status of any patient must be declared before transfer to any NHS or ‘other’ healthcare facility, including MRSA status, in order for the receiving trust to prepare adequate isolation or infection control precautions. This should be documented on transfer documents as well as any verbal ‘hand-over’.

There are sometimes concerns from **nursing and residential homes** about accepting patients back from the Trust once they have been identified with MRSA. The following Department of Health guidance is very clear:

“There is no justification for discriminating against people who have MRSA by refusing them admission to a nursing or residential home or by treating them differently from other residents”


Although private homes may refuse any patient according to their own policies, NHS homes must be guided by department of health policy. Difficulties with individual homes should be discussed with the Infection Control Team.

13 **Discharge screening**
Discharge screening of MRSA patients should only be done:
- If a known MRSA patient has not been screened within the last week following decolonisation treatment.
- If the hospital, nursing or residential home requests it prior to transfer.
- If an inpatient has to return for elective or urgent surgery in the near future (3 months)

14 **Decolonisation regimen for patients**

14.1 **Introduction**
Topical decolonisation protocol is suitable for nose, throat and groin colonisation (any combination of sites). Complete eradication of MRSA is not always possible but a decrease in carriage can reduce the risk of transmission in healthcare settings and can reduce the risk of inoculation to the patient’s own surgical wound during surgery (Coia et al 2006). For patients with eczema, dermatitis or other skin conditions, attempts should be made to treat the underlying skin condition.

14.2 **Decolonisation Regimen:**
There are two regimes use for decolonisation treatment depending on the resistance pattern of the MRSA:

14.2.1 **Mupirocin Sensitive MRSA (see Appendix 2)**
- Mupirocin in paraffin base t.d.s. to anterior nares of both nostrils for 5 days.
- Chlorhexidine 4% skin wash / bath – daily for 5 days. Particular attention should be taken when washing the axillae, groin and skin folds. (The skin must be moistened with water before applying to reduce likelihood of reactions).
- Regimen of Chlorhexidine 4% hair-wash and rinse, every second day of the 5 days (i.e. twice). A normal shampoo and conditioner can be used after the Chlorhexadine each time.
- Linen and bed-wear should be changed daily (in hospital). Out-patients should change bed linen on the last day of treatment (Day 5).

A maximum of two Mupirocin sensitive MRSA decolonisation treatments should be given per hospital episode.
14.2.2 Mupirocin Resistant MRSA (See Appendix 3)
- 10 days of Neomycin (Naseptin) four times a day to both nostrils.
- Five days of 4% Chlorhexidine wash, used as a liquid soap. Particular attention should be taken when washing the axillae, groin and skin folds. (The skin must be moistened with water before applying to reduce likelihood of reactions).
- Hair should be washed with the Chlorhexidine, at least three times during the five days, if possible. A normal shampoo can be used after the Chlorhexidine each time.
- Linen and bed-wear should be changed daily (in hospital) out-patients should change bed linen at least on day 5 and day 10 of treatment.

If the patient has eczema, dermatitis or other skin conditions seek advice from a consultant dermatologist.

14.3 Decolonisation for different patient groups
14.3.1 Newly identified MRSA carriers.
Programme as above for five days. Screen on the 2nd day after completion (i.e. on Day 7). A maximum of two decolonisation treatment protocols should be prescribed per admission episode.

14.3.2 Pre-operatively for patients with known MRSA colonisation.
Patients should be decolonised for known MRSA colonisation as above to reduce risk of infection from own MRSA carriage. Ideally surgery should be scheduled for day five of decolonisation. If identified MRSA positive on admission, decolonisation should begin immediately.

14.3.3 Other known MRSA carriers.
As above, but only if the patient has not attempted decolonisation within the past year.

14.3.4 Decolonisation on discharge
Patients may be discharged with eradication regimen as a medication pack “to take away” (TTA) if they can complete the regimen for themselves. Patient advice on how long to continue the regimen is essential. Patients should be advised to return to their GP for further advice and for rescreening.

14.3.5. Post decolonisation follow-up for Inpatients,
Inpatients should be re-screened 48 hours after completion of the decolonisation treatment unless they are having antibiotic therapy. Three consecutive sets of negative MRSA results screen results, a week apart are required to discontinue isolation. (Only in rare cases is this period shortened. This can only be considered under the guidance of the Infection Control Team). Liaison with the Infection Control Team must take place prior to discontinuation of isolation.

14.3.6. Day Surgery and Short Stay
Day Surgery and Short Stay patients do not need to be re-screened by the hospital.

14.3.7. MRSA positive patients who have central / Hickman /PICC lines in situ must be electronically prescribed 2% Chlorhexidine washes once daily using 2% Chlorhexidine wash clothes (NHSSC order code:VJT127) for the duration the line stays in situ. However if this is anticipated to be an extended time period (longer than 2 weeks) then the prescription regime should be for 1 week then stop for a week, re-prescribe for a week, stop for a week, to continue whilst the line remains in situ.

If MRSA infection is suspected, the advice of the Microbiologists should be sought. Therapy for wounds or other indwelling devices, e.g. jejunostomy tubes should also be discussed with Microbiologists.
15. **ITU MRSA Screening and topical decolonisation programme**

Screen all patients on admission to ITU for MRSA. (Nose, groin, CSU, wounds, and IV cannula sites and sputum / endotracheal aspirate).

Standard / Contact precautions for known positive MRSA patients.

Initiate decolonization regimen (section 4.2) for MRSA positive patients in liaison with the Infection Control Team.

16. **Staff Screening**

Screening of staff is not currently undertaken as a matter of routine which is in line with national guidance, although following advice from the consultant microbiologist, groups of staff may be required to be screened based on clinical evidence and risk. This confidential screening is undertaken through occupational health.

16.1 Management

- Swabs taken from the nose, groins and any skin lesions
- The staff member should be assessed for suitability for topical treatment and if possible this should be commenced
- The member of staff can return following completion of the decolonisation protocol after treatment has commenced.
- If an MRSA positive member of staff has a partner/close family member that is a health care worker, consideration should be given to taking screening swabs.

16.2 Staff Decolonisation Treatment

Topical treatment is for five days and consists of:

- Mupirocin ointment TDS to both nostrils
- Chlorhexidine body wash, with particular emphasis on axillae, groin and skin folds. (Skin should be moistened with water before applying to reduce the likelihood of reactions)
- Hair should be washed with the Chlorhexidine too, at least three times during the 5 days, if possible. A normal shampoo and conditioner can be used after the Chlorhexidine each time
- Linen and bedding should be changed daily

Staff will be given an advice sheet and any questions discussed.

16.3 Follow up of MRSA positive staff

- Repeat screening swabs should be taken 48 hours after completion of the decolonisation protocol and then at weekly intervals until three negative sets have been obtained.
- If the post-protocol swabs are MRSA positive, treatment should be repeated for a further 5 days
- Systematic treatment for chronic MRSA colonisation will be agreed on individual basis by the consultant microbiologist and the occupational health physician.

17. **MRSA Screening Data**

The MRSA screening target requires NHS trusts to demonstrate more MRSA screens than elective admissions per month. The Care Quality Commission will monitor trusts compliance with MRSA screening commitment because it is part of The Hygiene Code (2008). The Performance Dept are responsible for collating the MRSA screening data and for entering it onto the national database (HES) on a monthly basis. Each directorate is responsible for validating it’s MRSA screening data. Compliance with the screening commitment will be reported by the directorates into the Infection Control Committee.
18  References

http://www.his.org.uk//resource_library/mrsa.cfm?cit_id=435&FAArea1=customWidgets.content_view_1&usecache=false

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MRSA - What nursing and residential homes need to know

http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Professionalletters/Chiefmedicalofficerletters/DH_063138

MRSA screening - Operational guidance (July 2008) 
http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_086687

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http://www.dh.gov.uk/en/Publicationsandstatistics/Lettersandcirculars/Dearcolleagueletters/DH_092844

MRSA Screening Frequently Asked Questions (February 2009) 
http://www.dh.gov.uk/en/Publichealth/Healthprotection/Healthcareacquiredinfection/DH_094120

Impact Assessment of Screening Elective Patients for MRSA (2008) 

Screening for Penicillin Resistant Staphylococcus aureus (MRSA) colonisation: a strategy for NHS trusts - a summary of best practice 

December 2010
Review 2012
Statement of Declaration on MRSA Screening for all Emergency, Day Case and Electively Admitted Patients

December 2010

Introduction

Chelsea and Westminster Hospital Trust take its responsibility for the prevention and management of infection very seriously, being committed to the prevention and control of healthcare associated infections. Our aim is to ensure that patients, their families and the broader communities we serve feel reassured by the positive steps we have taken in providing clean, safe care to all patients.

We have a comprehensive infection prevention and control programme that is aimed at reducing infections and securing patient safety. As part of these measures we have implemented a revised Meticillin Resistant Staphylococcus aureus (MRSA) screening policy in line with recent Department of Health guidance.

Process

At Chelsea and Westminster Hospital, all patients who are admitted will be screened for MRSA from December 2010. Those patients admitted for elective (planned) procedures will be screened for MRSA prior to admission as per existing policy. Those admitted as an emergency (unplanned) will be routinely screened when admitted through the following departments: the Emergency Department, Acute Admissions Unit (AAU), Outpatient Department, Kobler, Thomas MacCaulay Ward or Medical Day Unit (MDU). This is in line with the operational framework published by the Department of Health (DH) (15th Dec 2010) to ensure a robust MRSA screening programme for both planned and emergency admissions.

The Trust MRSA procedure, which is ratified by the Infection Prevention and Control Committee, reflects this guidance and is available to staff and patients on the Trust internal and external hospital websites.

Compliance

The Department of Health (DH) requires assurance from trusts that MRSA screening is taking place in line with guidance and the provision of evidence of this. Systems and processes are in place for monitoring compliance with the Trust’s MRSA screening programme and for providing assurance that these arrangements are effective. The Trust has ensured that it has the following controls assurance mechanisms in place to monitor compliance with MRSA screening through an assurance framework:

Compliance with the policy will be undertaken by the hospital through matching screening to patients and reporting to the Trust Board. In addition random daily audits are conducted in each inpatient clinical area.

The hospital Infection Prevention and Control Committee monitors compliance on a monthly basis and actions are taken to follow up any incident of non compliance with the MRSA screening procedure.

Screening compliance is reported to the Trust Board by the Director of Infection Prevention and Control through the board assurance framework.
Further Information
The Trust policy for MRSA Screening is publicly available on our website.

If you have any questions about our MRSA screening policy or about wider arrangements in the Trust for the prevention and management of infection, please ask your doctor or nurse providing your care.

Further information on MRSA screening is also available from the Department of Health.

We can confirm that screening of all patients admitted to Chelsea and Westminster Hospital is compliant with Department of Health Guidance.
PRESCRIPTION FOR MRSA DECOLONISATION PROTOCOL
Mupirocin (Bactroban®)-SENSITIVE

Patient Details:
Name: 
DOB: 
Hospital Number: 
Consultant: 

Allergies (include drug and nature of reaction):

Medication:
CHLORHEXIDINE GLUCONATE 4% SURGICAL SCRUB
• Use to wash the entire body ONCE daily for 5 days. Use like a shower gel or liquid soap, paying particular attention to the groin and other skin folds and creases. Moisten skin with water before applying.
• Use to wash hair at least THREE times during the 5 days. A normal shampoo may be used after the chlorhexidine each time.
Route: topical  Number of days: 5  GP to continue: NO
Quantity: 500mL

MUPIROCIN 2% NASAL OINTMENT (Bactroban Nasal®)
Apply to the inner surface of both nostrils THREE times daily for 5 days.
Route: nasal  Number of days: 5  GP to continue: NO
Quantity: 3g

Prescriber's name (Block capitals):

Prescriber's signature:

Date:

Pharmacy Medicines Helpline: 020-8746-8366 (Open Mon-Fri 10am-5pm)
PRESCRIPTION FOR MRSA DECOLONISATION PROTOCOL
Mupirocin (Bactroban®)-RESISTANT

Patient Details:
Name: 
DOB: 
Hospital Number: 
Consultant: 

Allergies (include drug and nature of reaction):

Medication:

CHLORHEXIDINE GLUCONATE 4% SURGICAL SCRUB
• Use to wash the entire body ONCE daily for 5 days. Use like a shower gel or liquid soap, paying particular attention to the groin and other skin folds and creases. Moisten skin with water before applying.
• Use to wash hair at least THREE times during the 5 days. A normal shampoo may be used after the chlorhexidine each time.
Route: topical  Number of days: 5  GP to continue: NO
Quantity: 500mL

CHLORHEXIDINE HYDROCHLORIDE 0.1%, NEOMYCIN SULPHATE 0.5% CREAM (Nasptin®)
Apply to the inner surface of both nostrils FOUR times daily for 10 days
Route: nasal  Number of days: 10  GP to continue: NO
Quantity: 15g

Prescriber’s name (Block capitals):

Prescriber’s signature:

Date:
Pharmacy Medicines Helpline: 020-8746-8366 (Open Mon-Fri 10am-5pm)