



General Healthcare Group



Management of Meticillin Resistant Staphylococcus Aureus (MRSA)

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GHG Restricted

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Management of Meticillin Resistant Staphylococcus aureus (MRSA)

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Management of Meticillin Resistant *Staphylococcus Aureus* (MRSA)

1.0 INTRODUCTION

- 1.1 Whilst Meticillin Resistant *Staphylococcus aureus* (MRSA) (formally known as Methicillin), remains endemic in many hospitals within the UK, General Healthcare Group (GHG) facilities remain relatively MRSA free, with only random cases isolated within its client group. The transmission and acquisition of MRSA is a multi-factorial process and as such control measures must cover all aspects of the patients care, commencing with identification of at risk patients and implementation of control measures.
- 1.2 The consequences of developing a serious infection with MRSA can be life threatening. The Department of Health (DH) specialist advisory group highlights that active prevention and control programmes continue to be the recommended approach to reduce the risk of transmissions of infections including MRSA in healthcare settings (Coia et al 2006.)
- 1.3 GHG Infection Control department wishes to maintain the low levels of MRSA detected within the hospital client group and has developed a strict Corporate MRSA policy that must be implemented at local level and followed by all staff. The Clinical Governance Board reserve the right to change this policy before the end of the stated period in light of any changing guidance issued by relevant bodies.

2.0 PURPOSE

- 2.1 The purpose of this policy is to provide all GHG staff with evidence based information about Meticillin (formally known as Methicillin) Resistant *Staphylococcus Aureus* transmission and the potential risk to patients, healthcare workers and visitors and to identify strategies to manage these risks safely and so reduce the risk of cross infection.

3.0 SCOPE

- 3.1 This policy applies to all GHG (BMI Healthcare and Netcare UK) employees, contract, bank or agency. This policy also applies to medical practitioners working within GHG operated hospitals/facilities and is covered within the GHG Practice Privileges document.

4.0 RESPONSIBILITIES AND DUTIES

4.1 Employees

- 4.1.1 All staff (including employed staff, agency and locum staff, medical staff at all levels, clinical and non clinical staff) are responsible for adhering to this policy and reporting breaches of this policy to their line manager. This policy should be read in conjunction with the following documents:

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- Hand Hygiene Policy
- Standard Infection Control Precautions Policy
- Patient Isolation Policy
- Safe Management of Clinical Waste Policy.

4.2 Senior Hospital Management

4.2.1 Senior hospital/facility management is responsible for ensuring this policy is implemented and observed within their hospital/facility, and ensuring appropriate action is taken when staff fail to comply with this policy.

4.3 Infection Prevention and Control Coordinators (IPCCs)

4.3.1 IPCCs are responsible for ensuring local procedures clearly reflect this Corporate policy and reporting non compliance to both Senior Management and the GHG Head of Infection Prevention and Control (HIPC), and to provide advice in accordance with this policy.

5.0 **MONITORING AND COMPLIANCE**

5.1 Monitoring of isolation practices within the annual infection control audits will provide evidence of compliance and effectiveness. Surveillance undertaken by the IPCCs is performed in order to monitor trends in MRSA and facilitate prevention and control measures. Reports of both activities are submitted to the Corporate Infection Control Department for analysis and feedback, which in turn is submitted to the GHG Clinical Governance Board. Enhanced surveillance of MRSA wound infections and bacteraemias is undertaken in line with Department of Health and Corporate requirements. MRSA surveillance data is reported to hospital Clinical Governance Committees/ Infection Control Committees and to Corporate Office where the reports will be reported and reviewed by the Group Clinical Governance Board.

6.0 **TRAINING**

6.1 All staff will receive training and awareness of MRSA both at induction and as part of annual mandatory training.

7.0 **DEFINITION**

7.1 **Staphylococcus aureus**

7.1.1 Staphylococcus aureus is an antibiotic sensitive bacterium that colonises the nose, throat and skin in 20%-40% of the population without causing an infection. Staphylococcus aureus has shown resistance to meticillin and a variety of antibiotics over the past 40 years. When the bacterium is resistant to Meticillin it is called Meticillin Resistant Staphylococcus Aureus (MRSA). The particular importance of MRSA is that as well as being resistant to Meticillin, it is usually also resistant to a wide range of other antibiotics, thus limiting treatment options.



7.2 Colonisation

7.2.1 MRSA that lives harmlessly on the skin, on hair follicles and in the nose of some people is described as colonisation, which is more common than infection. Carriage can be transient but in some cases persistent. Patients who have long-term invasive devices may have extended periods of colonisation, which may not resolve until these devices have been removed. Colonisation is not uncommon in chronic wounds e.g. leg ulcers and pressure ulcers. Patients who are colonised are at greater risk of developing infection.

7.3 MRSA Infection

7.3.1 MRSA infection occurs if the organism invades the skin or deeper tissues and multiplies to cause an immune response i.e. a local or systemic reaction causing pain, redness, swelling, pus, pyrexia, etc. MRSA infection should be suspected if wound exudate increases, or if healing is slow and for any infection that is not responding to antibiotics.

7.4 **MRSA Bacteraemia** MRSA bacteraemia is an infection in the circulating blood stream. This can be a life threatening sepsis that can lead to death if not diagnosed early and treated effectively.

8.0 PRINCIPLES

8.1 Antibiotic Prescribing

8.1.1 Avoid unnecessary antibiotic prescribing to reduce selection pressure for resistant organisms including MRSA. Reduce the use of broad-spectrum antibiotics to reduce emergence of multiple resistant organisms. Also consider the risk of MRSA as a potential pathogen and prescribe appropriate antimicrobial therapy or surgical prophylaxis when indicated, and limit the use of glycopeptides antibiotics to reduce development of resistant organisms.

8.2 Surveillance of MRSA

8.2.1 Surveillance will be performed in order to monitor trends in MRSA and facilitate prevention and control measures.

8.3 MRSA Screening

8.3.1 Screen patients by taking specimens from the correct sites and labelling them correctly. Screen as per policy (appendix 1).

8.4 MRSA Decolonisation

8.4.1 Prescribe and administer MRSA topical decolonisation correctly in line with policy and ensure patients who are MRSA positive prior to high risk procedures receive appropriate decolonisation; either to eradicate MRSA or to reduce the bioburden and risk of infection.



8.5 Source Isolation

8.5.1 Ensure all patients are cared for as required within this policy.

8.6 Documentation

8.6.1 Ensure the MRSA status of all patients is accurately recorded, including information on topical decolonisation and specimen results.

8.7 Communication

8.7.1 Provide patients and visitors with accurate information on MRSA, including the risk of infection and management of those who are positive. Every patient who has MRSA should be given a copy of the Corporate MRSA leaflet. Ensure accurate information on MRSA status including information on topical decolonisation and specimen results is recorded and communicated to staff upon transfer to another organisation or discharge home.

9.0 STANDARDS TO BE FOLLOWED

9.1 Antimicrobial Prescribing

9.1.1 All Hospitals must have a policy in place for effective antimicrobial prescribing. Hospital pharmacists will monitor adherence to the antimicrobial prescribing policy. Guidelines for surgical prophylaxis must include recommended choice of agents and regimens for patients at high risk of MRSA colonisation or infection, or known to be colonised or infected with MRSA. Nursing staff are responsible for ensuring prescribed antimicrobial agents are given at the correct time and correct dosage. This includes topical decolonisation agents.

9.2 Surveillance of MRSA

9.2.1 IPCCs perform surveillance for MRSA routinely as part of alert organism surveillance. Enhanced surveillance of MRSA wound infections and bacteraemias will be undertaken in line with Department of Health and Corporate requirements. MRSA surveillance data will be reported to hospital Clinical Governance Committees/Infection Control Committees and to Corporate Office where the reports will be reported and reviewed by the Group Clinical Governance Board.

9.3 MRSA Screening

9.3.1 Patients will be screened for MRSA in order to improve patient safety for the following reasons:

- Patients found to be positive can be managed to minimise the use of MRSA infection during their treatment. This may require different antimicrobial prescribing or topical decolonisation prior to a procedure.
- To protect other patients from a risk of colonisation or infection from MRSA during their treatment. See Appendix 1.

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9.4 **MRSA Decolonisation**

9.4.1 All patients found to be MRSA positive will be considered for topical decolonisation in an attempt to eradicate MRSA and reduce the subsequent risk of infection. See appendix 2.

9.5 **Isolation Care**

9.5.1 All patients found to be MRSA positive will have an alert placed on the Patient Administration System (PAS) and a MRSA Alert sticker placed on the **inside** of the patient notes. Carriage of MRSA may persist for months and years and may reappear in an apparently 'cured' patient. Therefore, MRSA stickers should not be removed from medical notes even on patients who have been declared 'clear' on screening. All patients with MRSA will be managed with standard infection control precautions. If admitted as in-patients Source Isolation management will apply.

9.6 **Documentation**

9.6.1 The MRSA status must be accurately recorded in medical and nursing notes including information on topical decolonisation therapy and specimen results.

9.7 **Communication and Patient Information.**

9.7.1 Patients and visitors must be provided with accurate information on MRSA and this is the responsibility of the nursing staff admitting or providing care for the patient. The Corporate MRSA information leaflet must be given to all MRSA patients.

10.0 **VISITING OTHER DEPARTMENTS**

10.1 **Theatres**

10.1.1 MRSA positive patients can be placed anywhere on the operating list provided all surfaces and equipment are cleaned between the MRSA positive patient and the next patient. Routine cleaning measure should be adequate providing 15 minutes elapses between the MRSA patient leaving the theatre and the next patient entering in conventionally ventilated theatres. This allows sufficient time for adequate air changes between patients. **Airflow in ultraclean theatres make a minimum time unnecessary.** MRSA positive patients may be recovered in recovery units providing contact precautions are adhered to, and equipment in contact with the patient is cleaned after use using detergent/ water or detergent wipes.

10.2 **Other departments**

10.2.1 All patients with MRSA may visit other departments for investigations or treatments providing the department is informed of the patient MRSA status in advance. Although standard precautions are usually adequate in most departments for most investigations, this information will allow the department to call the patient in a timely manner and to take additional infection control precautions if necessary during the procedure.



The patient can be seen at any time during the working session provided contact precautions are implemented by staff that have hands on contact with the patient. Equipment used on the patient must be cleaned after use. Gloves and aprons **should not be worn** to push the bed or trolley through the hospital. Hand hygiene using alcohol gel is sufficient in this situation.

10.3 **Staff and MRSA**

10.3.1 Screening of staff is rarely required. The decision to screen staff should only be made in consultation with the head of Infection Prevention and Control (HIPC), or in the case of an identified outbreak of MRSA with the local consultant microbiologist). This confidential screening should be undertaken through the occupational health. See appendix 3.

10.4 **Deceased patients**

10.4.1 The same standard infection control precautions should be used for the deceased and the living. Specific body bags are NOT necessary.

10.5 **Cleaning of patient environments**

10.5.1 Patient's rooms must be cleaned thoroughly each day using the normal protocols for patient environments. Dust should not be allowed to accumulate as this may harbour MRSA. On terminal discharge special attention must be paid to all horizontal, dust collecting surfaces. Normal cleaning solutions are sufficient. Disinfectants are not to be used. Pillows and mattress covers should be checked for damage and replaced if any damage seen. Curtains should be steam cleaned or replaced. Carpets and upholstery that cannot be wiped clean should be steam cleaned, or cleaned by water extraction after vacuum extraction cleaning.

11.0 **REFERENCES**

- 11.1 Coia JE, Duckworth GJ, Edwards DI, et al (2006); Guidelines for the control and prevention of Meticillin- resistant Staphylococcus aureus in healthcare facilities by the Joint BSCA/HIS/ICNA Working Party on MRSA. Journal of Hospital Infection. 63 (Supplement 1)
- 11.2 Royal College of Nursing (2004); Meticillin resistant staphylococcus aureus (MRSA) - guidance for nursing staff.

12.0 **BIBLIOGRAPHY**

- 12.1 Gloucestershire Primary Care Trust. Policy for Prevention and Control of Meticillin Resistant Staphylococcus Aureus (MRSA) 2008.
- 12.2 Southampton University Hospitals NHS Trust. MRSA Policy 2007. Department of Health (2003)
- 12.3 Winning Ways. Working together to reduce Healthcare Associated Infections in England. Report from the Chief Medical Officer.

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Appendix 1

Mandatory Screening Protocol Within GHG Facilities

1.0 Who

- 1.1 Any patient known to be previously MRSA positive.
- 1.2 All NHS patients admitted under contract (excluding endoscopy, ophthalmic day cases and dermatology minor procedures, in line with DH guidance)
- 1.3 Any patient transferring directly from another hospital in the UK or abroad.
- 1.4 Any patient admitted from a residential or nursing home.
- 1.5 Any patient known to have been discharged from any hospital (including BMI) following a medical or in patient surgery event within the last three months.
- 1.6 Any patient about to undergo surgery that requires
 - Insertion of one or more prostheses or grafts (excluding day case cataract surgery)
 - Requiring planned level 2/3 critical care management.

2.0 When

- 2.1 Screening should take place in pre-assessment clinics whenever possible and should be included as part of routine pre-assessment procedures. If this is not possible screening should be performed on admission, patient should be treated as MRSA positive until results obtained, and management is then determined by the result. **Screening should be undertaken within the 14 days prior to procedure being undertaken.**

3.0 Where to swab

- 3.1 Elective surgical admissions:
 - Nose- one swab used inside both anterior nares.
 - Groin – one swab used.
 - Axilla – one swab used
- 3.2 Emergency admissions, transfers in or if a potential outbreak identified:
 - Nose- one swab used inside both anterior nares.
 - Groin – one swab used.
 - Throat – one swab used
 - Insertion sites for devices in situ at time of screening (IVI, PEG sites, etc).



- Catheter Specimen of Urine- CSU taken from patients who have indwelling catheters in situ at time of screening. This must be taken using the correct technique, not from the bag.
- Skin lesions and/ or wounds – one swab from each site; clearly identifying sites.
- Sputum – if productive cough.
- Any other sites that has been previously positive if the patient has had MRSA previously i.e. stoma.

4.0

How

- 4.1 The sensitivity of detection of MRSA carriage depends on how well the swab is taken and the methods used in the laboratory to detect MRSA. The swab must be sterile with the packaging opened immediately prior to use, and outside of the container for the minimum amount of time possible required to take the swab.
- 4.2 If sampling a dry site, moisten the swab with sterile normal saline prior to sampling. If no saline available, the transport medium may be used to moisten the swab.
- 4.3 Use a single request form for all MRSA screening swabs from an individual patient. Specimens must be correctly labelled with patient details. Clinical details must contain antibiotic therapy if appropriate.



Appendix 2

If Patient is Found to be MRSA Positive

1.0 Pre-admission elective surgery patient

- 1.1 Patient, Consultant and GP to be notified. **Local procedures must be written to cover these activities.**
- 1.2 Notes marked and entry made on PAS.
- 1.3 Attempt made to decolonise the patient.
- 1.4 Repeat screening 48hrs after treatment has stopped. If the repeat screen is positive the patient should be managed as MRSA positive on admission.
- 1.5 If it is impossible to clear a patient of MRSA prior to the admission for surgery, if they have already had multiple decolonisation attempts previously, or if they have other factors which make successful decolonisation unlikely, bioburden reduction should be commenced 48hrs pre-operatively in order to reduce the level of MRSA at the time of the procedure. These patients must be admitted and managed as MRSA positive. When topical decolonisation is performed in an attempt to eradicate MRSA, the nose skin and hair must all be treated using the following regimen.

MRSA DECOLONISATION REGIMEN			
Procedure	Product	Directions	Duration
Daily shower/ bath/blanket bath	Chlorhexidine gluconate 4% or Octenisan	Apply product direct to wetted skin using a disposable cloth.	For 5 days (longer courses are not more effective)
Wash hair twice during regimen period	Chlorhexidine gluconate 4% or Octenisan	Wash hair with product in place of shampoo	
Nasal Clearance	Mupirocin cream 2% (Bactroban)	Applied to nostril 3 times a day	For 5 days



Appendix 3

Staff and MRSA

1.0 Screening of Staff

- 1.1 In line with national guidelines, screening of staff is not currently undertaken as a matter of routine, although following advice from a consultant microbiologist and Corporate office, groups of staff may be required to be screened based on clinical evidence and risk. This confidential screening must be taken through Occupational Health. Managers and other staff should not have access to this confidential information. Staff should not undertake any self-screening; if staff consider themselves to be colonised with MRSA they should contact Occupational Health for advice.

2.0 Staff found to be MRSA positive

- 2.1 Staff will be treated with empathy, respect and in confidence and will commence a topical decolonisation regime as per appendix 2.
- 2.2 Staff will not be able to undertake clinical work until 24hours after the commencement of the treatment. Non-clinical work may take place.
- 2.3 48hours after the completion of the treatment repeat MRSA screening. If these swabs are negative a further repeat of swabs will be required after a further seven days. If the second set of swabs is positive advice must be sought from a consultant microbiologist.
- 2.4 Staff found to be persistently colonised will be managed on an individual basis in confidence by Occupational Health.