

MEDICAL DIRECTOR'S OFFICE

POLICY FOR THE CONTROL OF METICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS

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Northern Lincolnshire and Goole Hospitals NHS Foundation Trust actively seeks to promote equality of opportunity and good race relations.

The Trust seeks to ensure that no employee, service user, or member of the public is unlawfully discriminated against for any reason, including their religion, beliefs, race, colour, gender, marital status, disability, sexual orientation, age, social and economic status or national origin.

These principles will be expected to be upheld by all who act on behalf of the Trust, with respect to all aspects of this document.

1.0 Purpose

1.1 Summary

This is an over-arching Northern Lincolnshire & Goole Hospitals NHS Foundation Trust (NLAG) Policy on the detection and management of MRSA.

1.2 Objectives/success factors

The objectives of this policy are:

- To ensure patients who are confirmed to have MRSA are managed safely and appropriately, and receive adequate information about their condition
- To ensure the spread of MRSA within NLAG is minimised
- To protect patients from infection or colonisation with MRSA

This policy includes:

- Detection of MRSA by screening patients
- Actions to be taken when patients who have or may have MRSA are admitted
- Appropriate placement of patients with MRSA
- Decolonisation of patients with MRSA
- Actions required to reduce the risk of infection in patients who are already colonised with MRSA
- Actions that should be taken to ensure safe, appropriate treatment of MRSA infection
Communication of infection status on transfer or discharge using the Inter Healthcare Infection Control Notification Form or discharge information leaflet as relevant to circumstances.

2.0 Area

This policy will apply to all patients and all disciplines of healthcare staff and allied professionals employed within Northern Lincolnshire & Goole NHS Foundation Trust (NLAG).

3.0 Duties

All staff working on Trust premises, including Trust employed staff, contractor's staff, agency and locum staff are responsible for adhering to this policy, and for reporting breaches of this policy to the person in charge and to their line manager.

Ward and Department Managers are responsible for ensuring implementation within their area, and for ensuring all staff who work within the area adhere to the principles at all times.

Consultant Medical Staff are responsible for ensuring their junior staff read and understand this policy, and adhere to the principles contained in it at all times.

Divisional Management Teams are responsible for monitoring implementation of this policy, and for ensuring action is taken when staff fail to comply with the policy.

Site Co-ordinators and Bed Managers are responsible for ensuring patients are placed in accordance with this policy, and for escalating any situations where safe placement cannot be achieved.

On-call Managers and Directors are responsible for providing senior and executive leadership to ensure implementation of this policy, and for ensuring infection risks are fully considered and documented when complex decisions need to be made regarding capacity and patient flow.

The Infection Control Team is responsible for providing expert advice in accordance with this policy, for supporting staff in its implementation, and assisting with risk assessment where complex decisions are required. They are also responsible for ensuring this policy remains consistent with the evidence-base for safe practice, and for reviewing the policy on a regular basis. On identification of a new case of MRSA the Infection Control Team will inform ward staff, arrange for the patient's records to be flagged and advise that decolonisation be initiated. All subsequent follow-up - including initiation of the MRSA Care Pathway - is the responsibility of the clinical team, with support from the Infection Control Team.

Infection Control Committee will receive reports from the IPCT and monitor compliance with and the effectiveness of this policy.

Non-compliance with this Trust Policy may result in disciplinary action.

4.0 Actions

Standards to be followed:

4.1 Antimicrobial Prescribing

Adhere to Antibiotic Policy.

4.2 Surveillance of MRSA

The Infection Control Team will perform surveillance for MRSA isolates routinely as part of alert organism surveillance. Clinical areas will be informed of all identified MRSA-positive patients by the laboratory/Infection Control Team.

The Infection Control Team will perform enhanced surveillance of MRSA Bacteraemia in line with the Department of Health requirements. The results of this surveillance will be fed back to Clinical and Management Teams for action.

Clinical and Management Teams are responsible for ensuring review/Root Cause Analysis of each clinical case of MRSA Bacteraemia and implementation of local action plans to improve practice.

MRSA surveillance data will be reported and reviewed via Divisional Governance arrangements/ICC.

4.3 MRSA Screening

Patients will be screened for MRSA in accordance with Department of Health guidance, for the following reasons:

- Patients found to be positive can be managed to minimise the spread of MRSA infection during their treatment. This may require different antimicrobial prescribing, topical decolonisation prior to a procedure, or other measures.

- To protect other patients from the risk of colonisation or infection with MRSA during their treatment.
- Follow up screening is confined to:
 - Inpatients. It is only necessary in the management of isolation facilities and does not directly influence patient management.
 - Pre assessment cases who are due to undergo implant surgery (orthopaedic, vascular and breast implant) and who are found to be MRSA positive at pre assessment screening.

4.4 MRSA Decolonisation

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. This is in addition to the Trust Triclosan for All Policy.

4.5 Isolation

All patients found to be MRSA positive will have an alert placed on the PAS systems and a sticker placed on their notes. Responsibility for checking this rests with the medical and nursing staff who admit the patient.

All patients with MRSA will be managed with standard infection control precautions

Single room isolation will be implemented for all patients in accordance with facilities available. A risk assessment may need to be undertaken to prioritise single room use.

Where single room isolation cannot be achieved the Infection Control Team and Site Co-Ordinator must be informed. Following liaison with Bed Management a cohort bay may be established. An incident form must be completed where isolation cannot be implemented.

4.6 Documentation

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

4.7 Communication and Patient Information

Patients and visitors must be provided with accurate information on MRSA. This is the responsibility of the medical and nursing team admitting or providing care for the patient.

This includes information for all patients on the risk of infection during procedures, and information for those found to be positive on their management. Information leaflets are available on the public website of the Trust as well as the Infection Control Intranet web site.

Accurate information on MRSA status must be recorded and communicated to other wards and departments within NLAG in order to facilitate safe care.

Accurate information on MRSA status including information on topical decolonisation and specimen results, must be recorded and communicated to staff in primary and community care upon transfer to another organisation or discharge home using either the Inter Healthcare Infection Control Notification Form or the Discharge Instruction Leaflet for Patients and Carers.

Patients should be informed of the implications of their current MRSA positive status in relation to their management during future admissions.

5. Actions/Procedures

Controlling MRSA by Risk Areas and Susceptibility of Patients

5.1 Each ward/department can be categorised into a clinical risk area:

When patients from different categories are mixed on a ward/unit, the higher category applies to ALL patients

	CRITICAL CARE	HIGH	MEDIUM	CHILDREN & ROUTINE MATERNITY INPATIENT AREAS
Area	ITU SCBU/NICU CCU/HDU (DPOW)	Orthopaedic Trauma Vascular Breast Implants General Surgery Urology Gynae CCU (SGH)	General Medical Elderly Medical Obstetrics (LSCS and high risk cases only***) Haematology/Oncology (Inpatients) Stroke Units	Children **** Routine maternity/obstetrics****
Routine Admission Screening	All patients screened on admission and transfer (nose, perineum, lesions & manipulated sites) and weekly, whilst on unit ITU – Screen before transferring out of unit. SCBU/NICU - Standard neonatal screening is adequate. (Screening for Group B streptococcus is adequate for detecting MRSA)	All patients on admission. For all elective cases : Screen patients at pre-assessment and repeat at admission (nose & manipulated sites). For emergency cases: screen on admission (nose & manipulated sites)	Screen all patients on admission (nose & manipulated sites)	No admission screen required unless a child in an inpatient area in a high risk* group and/or previously MRSA positive (nose & manipulated sites)
Triclosan Prophylaxis for all patients	Adults: Commence washing with Triclosan on admission and continue for length of stay. NICU/SCBU: Prophylactic Triclosan not necessary.	Commence washing with Triclosan at least 5 days before admission where applicable (Orthopaedic, Vascular & Breast Implants). Commence/continue daily washes for the duration of hospitalisation.	Commence washing with Triclosan daily on admission. Continue daily washing for the duration of the admission.	Prophylactic Triclosan not necessary.

Treatment for MRSA positive Patients	<p>Follow MRSA Pathway.</p> <p>Continue with daily Triclosan body wash for length of stay.</p> <p>Add Mupirocin nasal for 5 days. Other antimicrobials if indicated ie MRSA infections.</p>	<p>Follow MRSA Pathway.</p> <p>Continue with daily Triclosan body wash for length of stay.</p> <p>Add Mupirocin nasal for 5 days. Other antimicrobials if indicated ie MRSA infections.</p>	<p>Follow MRSA Pathway.</p> <p>Continue with daily Triclosan body wash for length of stay.</p> <p>Add Mupirocin nasal for 5 days. Other antimicrobials if indicated ie MRSA infections.</p>	<p>For MRSA positive in patients :</p> <p>Follow MRSA Pathway</p> <p>Commence daily Triclosan body wash for length of stay.</p> <p>Add Mupirocin nasal for 5 days. Other antimicrobials if indicated.</p>
Follow-up screen of MRSA Positive Patients	<p>Following completion of the 5-day nasal decolonisation regime, wait for 48 hours and then screen nose, perineum and previous positive sites on 3 consecutive days.</p> <p>Do not discontinue Triclosan.</p>	<p>Following completion of nasal decolonisation, wait for 48 hours and then screen nose, perineum and previous positive sites on 3 consecutive days.</p> <p>Do not discontinue Triclosan.</p>	<p>Following completion of nasal decolonisation, wait for 48 hours and then screen nose, perineum and previous positive sites on 3 consecutive days.</p> <p>Do not discontinue Triclosan.</p>	<p>For MRSA positive inpatients:</p> <p>Following completion of nasal decolonisation, wait for 48 hours and then screen nose, perineum and previous positive sites on 3 consecutive days.</p> <p>Do not discontinue Triclosan.</p>
ISOLATION	<p>Isolate all known positive patients and previous positive infections.</p> <p>Isolate higher* risk patients whilst awaiting admission screening results.</p>	<p>Isolate all known positive patients.</p> <p>Isolate higher* risk patients whilst awaiting admission screening results.</p>	<p>Isolate all positive patients and higher risk patients*</p> <p>Consider cohort nursing**.</p>	<p>For inpatients:</p> <p>Preferred to isolate all positive patients**</p>
LENGTH OF ISOLATION	<p>For patients positive this admission:</p> <p>Isolate until 3 sets of negative post-treatment swabs obtained.</p> <p>Continue with daily Triclosan wash for duration of admission</p>	<p>For patients positive this admission:</p> <p>Isolate until 3 sets of negative post-treatment swabs obtained.</p> <p>Continue with daily Triclosan wash for duration of admission.</p>	<p>For patients positive this admission:</p> <p>Isolate until 3 set of negative post-treatment swabs obtained.</p> <p>Continue with daily Triclosan wash for duration of admission.</p>	<p>For patients positive this admission:</p> <p>Isolate until 3 set of negative post-treatment swabs obtained.</p>

SCREENING FOLLOWING DISCONTINUATION OF ISOLATION	For patients positive this admission: Weekly screen while remaining on unit.	For patients positive this admission: Weekly screen while remaining in hospital	For patients positive this admission: Weekly screen while remaining in hospital	For patients positive this admission: Weekly screen while remaining in hospital
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- * Higher risk patients (ie those most likely to be positive) include those transferred from abroad or transferred from any non-NLAG hospital, residential/nursing homes, frequent admissions to any hospital and previously positive patients.
- ** If side room availability is limited, undertake risk assessment to determine which patient has priority for isolation. Patients with skin conditions, wounds, intravascular or urinary device should be given priority over intact skin.
- *** 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.
- **** Excluded unless already in high risk group.

	DAY CASE
AREA	All day cases EXCEPT: Day Case Ophthalmology, Dental, Endoscopy, minor dermatological procedures (eg removal of warts).
ROUTINE ADMISSION SCREENING	All patients on admission. For all elective cases - Screen patients at pre-assessment and repeat at admission (nose swab & manipulated sites). For emergency cases: screen on admission (nose swab) PLUS frequent attenders to be screened at 3-monthly intervals (eg Haematology patients). Pathology request forms must be appropriately annotated so that a copy of the results is sent to the patient's GP.
TRICLOSAN PROPHYLAXIS FOR ALL PATIENTS	N/A
TREATMENT FOR MRSA POSITIVE PATIENTS	Follow up treatment will be decided by the patients' GP and Community ICT following risk assessment for infection.
FOLLOW-UP SCREEN OF MRSA POSITIVE PATIENTS	Routine follow up not necessary except for pre assessment cases who are found to be MRSA positive at the pre assessment clinic and who are due to undergo implant surgery (orthopaedic, vascular and breast implant).
ISOLATION	Where possible, isolate previously positive patients.
LENGTH OF ISOLATION	For the duration of patient's stay.

SCREENING FOLLOWING DISCONTINUATION OF ISOLATION	N/A
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5.2 Colonisation vs Infection

Definitions

Colonisation: when bacteria which are able to cause infection are isolated from non-infected sites, eg *Staphylococcus aureus* in the nose.

Infection: is the reaction to microbes lodging and multiplying in the tissues, for example abscesses, wound infections or chest infections.

A list of symptoms that may or may not be present in varying degrees is detailed below:

	Colonisation	Infection
Erythema	No	Yes
Pyrexia	No	Yes
Cellulitis	No	Yes
Odour	Yes	Yes
Positive swab results	Yes	Yes
Purulent discharge	No	Yes
Excess exudate	Yes	Yes
Local pain	No	Yes
Local oedema	No	Yes

5.3 Screening sites

	Specimen Screening Sites
Routine Pre-Admission Elective	Nasal & manipulated sites.
Routine Critical care area	Nasal, lesions, perineum & manipulated sites
Routine High risk area	Nasal & manipulated sites.
Routine Medium risk area	Nasal & manipulated sites.
Routine Childrens & Maternity Inpatient Areas	Nil required routinely.

Routine Day Case Areas	Nasal & manipulated sites.
MRSA positive patients	Any previous positive sites, plus nasal, perineum, wounds, lesions, insertion site of invasive devices, CSU if catheterised.

5.4 Pre-Elective Admission Screening

Patients requiring elective admission will be screened for MRSA prior to admission.

Screening should take place at pre-assessment whenever possible and should be included as part of routine pre-assessment procedures.

Pre-assessment teams must ensure there are clear arrangements for checking, documenting and informing the GP of positive results so that action can be taken.

Adherence to this screening policy should be monitored annually. Results should be fed back through Governance arrangements to the Infection Control Team.

Laboratory request forms should be completed and clinical details should clearly state 'Pre-Admission Screen prior to X' (X = the type of surgery/treatment). Pathology request forms must also be appropriately annotated so that a copy of the results is sent to the patient's GP.

If a patient is found to be MRSA positive at pre-assessment the following actions must be performed:-

- The GP should be notified by the pre-assessment staff following review of the results. A copy of the results should be sent to the GP.
- The notes should be marked and the PAS and A & E Symphony systems alerted.
- An attempt should be made to decolonise the patient by the GP.
- Routine repeat screening is only necessary for patients undergoing implant surgery (orthopaedic, vascular and breast implant). Repeat screening should be performed a minimum of 48 hours after decolonisation treatment has stopped.
- The patient should be managed as MRSA positive if admission is deemed necessary. Dependant upon the isolation facilities available, standard precautions should be utilised for day case areas and Standard isolation procedures should be implemented for in patient areas.

The decision to admit is the responsibility of the clinician in charge. Advice can be sought from the Consultant Microbiologist.

5.5 Screening: Day Cases

Elective day cases: Screen for MRSA at pre-assessment and repeat at admission (nasal & manipulated sites).

Emergency cases: Screen on admission (nasal & manipulated sites).

Frequent attenders (eg Haematology regular attenders) to be screened at first treatment attendance and at 3-monthly intervals thereafter.

It is the responsibility of the clinical teams submitting the swab to ensure that the results are received and communicated to the GP so that decolonisation therapy is considered/prescribed.

5.6 Screening: Critical Care Area

- All patients screened on admission, transfer and weekly whilst on unit.
- **SCBU/NICU** – standard neonatal screening is adequate. Screening for Group B streptococcus is adequate for detecting MRSA.
- With the exception of NICU / SCBU, when a patient has been identified as being MRSA positive whilst nursed in a bay, contact screening will not be necessary in accordance with the Triclosan For All policy.

5.7 Screening: High Risk Area

- For all elective cases: screen patients at pre-assessment and repeat at admission.
- For emergency admissions, screen on admission.
- When a patient has been identified as being MRSA positive whilst nursed in a bay, contact screening will not be necessary in accordance with the Triclosan for All policy.

5.8 Screening: Medium Risk Areas

- Screen all patients on admission.

5.9 Screening: Childrens & Routine Maternity Inpatient areas

- No admission screen required unless child in an inpatient areas in high risk group and previously MRSA positive (nose & manipulated sites).

5.10 How To Screen

Swabs should be moistened in sterile saline and rubbed firmly over the area with 10 - 20 strokes, rotating the swab through 360° to ensure full coverage, and sent immediately to the laboratory.

5.11 MRSA Screening Method

Specimens to be taken:

1. Nose: One swab used inside both anterior nares (fleshy part of the nose).
2. Skin Lesions and/or Wounds: one swab from each site; clearly identifying sites. Label wound swabs "For culture and sensitivity (C & S)" rather than "MRSA screen".
3. Any other site that has been previously positive if the staff member has had MRSA previously, i.e. wound site
 - Indications for MRSA screening to be documented on the request form
 - Specimens must be correctly labelled with patient details. The laboratory will reject unlabelled or incorrectly labelled specimens.

5.12 Follow Up Screening of Specimens

It is the responsibility of the person sending the specimen to check the results and ensure this is clearly documented in the clinical records.

5.13 Communication of MRSA positive results

Patients should be informed about the need for screening and explanations provided about the implications of a positive result.

Patients who are colonised or infected with MRSA should be informed of their condition by their clinical team.

Inpatient notes and electronic patient record systems (including the A & E system) should be appropriately labelled to enable rapid recognition on subsequent admission.

Day case patients who have been discharged prior to the result will be informed by the GP.

No special precautions are necessary for visitors. Hand washing should be carried out on leaving the room.

5.14 Staff Screening

- **Routine staff screening for MRSA**

Screening of staff is not currently undertaken as a matter of routine 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. MRSA positive staff will be managed by Occupational Health.

- **Reducing the risks**

To reduce the risk of infection to both staff and patients, staff must not work in clinical areas while they have exposed broken skin. Skin which is broken should be covered with a waterproof dressing. Where this is not possible advice must be sought from Occupational Health.

Staff must not undertake self screening.

6.0 BASIC INFECTION PREVENTION & CONTROL MEASURES

6.1 General Principles

The general principles of Infection Prevention & Control apply to all wards and departments and are applicable to the control of MRSA:

- Correctly performed hand washing and disinfection.
- Wearing of gloves and disposable aprons for contact with body fluids, lesions and contaminated materials.
- Appropriate isolation of patients with, or suspected of having, a communicable infection.
- Rational use of antibiotics and an antibiotic policy.
- High standards of aseptic techniques.

- High standards of ward cleaning.
- Careful handling of used linen and its transport in sealed bags of appropriate colour.
- 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 minimising intra and inter ward transfers of patients.
- Maintaining adequate and appropriately skilled nursing and other staff levels.
- Regular monitoring or compliance with Infection Control policies through effective audits.
- The requirement for urgent specialist care should not be compromised by control measures and the patient's overall needs should take precedence.
- Ward closure should only be recommended after risk assessment and after full consultation with relevant clinicians, hospital management and the Infection Control Team.

6.2 Hand Decontamination

Hand decontamination remains the primary strategy for reducing the spread of MRSA. Soap and water with a good technique will remove MRSA from the hands. Alcohol hand rub can be used on visibly clean hands as a substitute for soap and water and will destroy MRSA rapidly. (See Hand Decontamination Policy.)

6.3 Isolation

Isolation in a single room, ideally with the door closed and en suite toilet facilities, will limit spread by promoting hand decontamination and limiting environmental dispersal of the organism on skin scales. (See Isolation Policy.)

Where isolation is not achievable due to limited side room availability or concerns regarding patient safety the placement of the patient should be such that risks of transmission are minimised. Discuss with Bed Management and Infection Control.

Priority for isolation should be given to MRSA positive patients with the following factors:

- Eczema or psoriasis (skin shedder)
- Sputum where patient is coughing
- More than 1 site colonised with MRSA
- Uncovered wound
- Invasive devices including urinary catheter

Where isolation facilities cannot be identified, complete an incident form and consider placing patient:

- In a bay with other patients colonised with MRSA (cohort nursing.)
- In a bed adjacent to a sink.
- In a bay with patients who do not have devices/wounds/chronic skin conditions.
- In a bay with patients who require minimal assistance with care activities.

Bays with doors and en-suite facilities are preferable for cohort nursing.

6.4 Use of Protective Clothing

The use of protective clothing is an important principle of isolation care to prevent transmission of MRSA. Standard Universal Precautions should be implemented for patients in source isolation. The choice and use of protective clothing should be based on how pathogens are spread in order to minimise that spread to both other patients and the healthcare worker. The following is required for MRSA source isolation:

MRSA	Gloves	Apron/Gown	Mask and Eye Protection
Contact precautions required.	By staff on entering the room if there is potential contact/exposure to blood/body fluids/chemicals. Effective hand washing is necessary even when gloves are worn.	By staff on entering the room if contact with the patient or their environment is anticipated.	Only required as part of standard precautions: during procedures likely to cause contamination/aerosols of blood or body fluids

If in doubt, contact a member of the Infection Control Team.

6.5 Cleaning and Disinfection

Instruments or equipment (eg sphygmomanometers and cuffs, stethoscopes, lifting slings, physiotherapy exercise machines) should be designated solely for the use of the MRSA patient. If not possible, such items should be disinfected before use on another patient.

Daily cleaning of the room with Actichlor plus (damp dusting) will avoid accumulation of dust (skin scales) and is an important element of MRSA control.

The side room in which an MRSA patient has been cared for must undergo a terminal clean (see Infection Control Guidelines for Domestic Services) after the patient's discharge with special attention to horizontal surfaces and dust-collecting areas. Therapy beds need special cleaning and curtains must be changed.

If an MRSA patient is known to be a heavy shedder of skin scales (eg psoriasis, eczema), then a deep clean of the cubicle rather than a terminal clean must be undertaken

The IPCN should document that the above is required and should also communicate this to the Ward Manager. Where appropriate, the IPCN should inform the Deep Clean Team.

There should be planned, periodic, thorough cleaning of the whole ward, including bedding and curtains.

Where a patient has been found to be positive in a bay, the bed space should be cleaned and curtains changed prior to admitting the next patient.

7.0 TREATMENT: INPATIENTS

7.1 Treatment of Patients who are Colonised

When a patient is identified as carrying MRSA on any site, decolonisation should be commenced as soon as possible and, ideally, on the same day that the patient is identified as being colonised with MRSA.

The MRSA pathway should be implemented to facilitate compliance with treatment and screening regimens. Treatment can be performed using a shower, bath or sink or by using a bowl or bed bath.

Patients colonised with MRSA who need to use wash areas outside of their isolation room should do so after all other patients have used them. The area should not be used by other patients until thoroughly cleaned by Domestic staff. The Infection Control Nursing Team should be consulted where facilities outside the isolation room are to be used.

7.2 Procedure

Application of body wash

Patients should bathe (bed bath/bath/shower) every day with an antiseptic detergent (Triclosan-containing product approved by the IPCT) for the duration of their stay in hospital. For patients with skin sensitivities, Dermal cream/lotion should be prescribed.

- Hair should be washed twice weekly with the same solution. Ordinary shampoo or conditioner can be used afterwards if desired.
- Use solution as a liquid soap/shower gel/foam - do not dilute
- Apply directly onto skin moistened with water using a wet disposable cloth
- Pay particular attention to the hair, around the nostrils, axillae, groins and feet
- Ensure a contact time of 1 minute is achieved
- Rinse off thoroughly
- Dry the skin thoroughly using a clean hospital towel – treat towel as infected linen
- Where a patient has mobility or incapacity issues, assistance may be required to facilitate treatment
- Clean bed linen and clean clothing should be provided daily after treatment
- Hands of staff and carers should be decontaminated after this procedure

In patients who cannot tolerate Triclosan, consider Dermal ointment or lotion as an alternative.

Antiseptics should be used with care in patients with eczema, dermatitis or other skin conditions. A dermatologist should be consulted for advice on such patients. If MRSA not eradicated after 2 courses of treatment please contact the Consultant Microbiologist for advice

7.3 Application of nasal ointment

- Apply a small amount of nasal ointment (Mupirocin 2%, Bactroban) using a cotton wool swab or bud to the inner surface of each nostril.
- Apply 3 times a day for five consecutive days.

- The nostrils should be closed by pinching the nose together at each application (because this spreads the ointment throughout the nares).
- Hands should be decontaminated after this procedure

If the strain is Mupirocin-resistant or not eradicated after 2 courses of decolonisation, contact the Consultant Microbiologist for advice.

Antibiotics that may be required for systemic use should not be used topically (eg Fusidic Acid, Gentamicin and Vancomycin)

NB: An alternative to Mupirocin nasal ointment must be considered when the patient is receiving oxygen therapy. Mupirocin skin ointment, which is water-based, is a suitable alternative.

7.4 Follow Up

- After completing the course of decolonisation, nasal treatment should be discontinued for 48 hours. Screen then follow the MRSA pathway.
- Post-treatment screening swabs of the nose, perineum, wounds, manipulated sites and source of initial positive result (if different from those indicated) should be taken on 3 consecutive days.
- Nasal decolonisation treatment should be recommenced whilst awaiting results.
- If MRSA is eradicated the decolonisation treatment is discontinued.
- If MRSA is not eradicated treatment needs to be continued for a further cycle.

NB: Triclosan body wash should continue for the length of the stay.

7.6 Treatment of Patients who are Throat Carriers

These are difficult to treat and their role in the transmission of infection is uncertain. Systemic treatment is usually required. This should be considered only in exceptional circumstances, eg evidence of transmission from a throat carrier, or when it is contributing to a continuing outbreak. This must be clearly explained to the patient or member of staff.

If treatment is required, a course of appropriate antibiotics should be given for a period of 5 days, according to the susceptibility of the strain.

Courses should usually not be repeated since side effects are common and increase with the length of treatment. The risk of emergence of resistance is also increased.

The value of local treatment such as antiseptic gargles or sprays is uncertain, but it may reduce Staphylococcal load.

- **Sputum**
Sputum carriage need not necessarily be actively treated as it often represents upper respiratory tract colonisation. Topical decolonisation should be adequate. The Consultant Microbiologist should be contacted for advice.

7.7 Treatment of Patients with Infected or Colonised Skin Lesions

Mupirocin (2%) cream may be applied to small lesions but not to large raw areas such as burns or to indwelling plastic devices.

Treatment should not extend beyond 7 - 10 days and a repeat course should preferably be avoided since resistance may emerge.

Dressings containing Chlorhexidine or Povidone-iodine or silver may be applied to infected or colonised wounds. These are unlikely to eradicate the organisms but may help to reduce numbers of organisms and thus dissemination.

Liaison with the Tissue Viability Nurse Specialist, where available, is advocated in wound care management.

7.8 PEG Sites, Suprapubic Catheter Sites

- Insertion sites for indwelling devices such as PEG tubes and suprapubic catheters can provide a focus for infection, and provide a route for MRSA to track along and potentially cause deep infection.
- Where sites are well-healed they can be treated as 'normal' skin during topical decolonisation for MRSA, and washed using decolonisation solutions.
- If the insertion site is infected with MRSA medical advice should be sought as antibiotics may be required.
- Use of an appropriate dressing with anti-staphylococcal activity on the site/around the device should also be considered. Advice must be taken from Pharmacy on the compatibility of the dressing to be used and the material the device is made from, due to the possibility that some chemical agents may damage indwelling devices and cause them to rupture.

7.9 Infected Peripheral IV Insertion sites in patients known to have MRSA

- Remove cannula and re-site if access is still required.
- Swab the site for culture and sensitivity.
- Dress the site using an appropriate dressing; if the patient has MRSA a dressing with anti-staphylococcal activity should be selected if possible.
- Document the VIP score of the site, and actions taken including choice of dressing

7.10 Tracheostomy sites

- Once the exposed edge of a permanent/long term tracheostomy site is 'healed' it should be carefully cleaned daily as part of normal hygiene of the stoma.
- There is nil else that can be specifically done to reduce MRSA colonisation from this site

7.11 Treatment of MRSA in Neonates

1% Triclosan foam/liquid solution should be prescribed as a soap substitute for bathing babies to prevent cross infection. Apply to wet skin using dampened cotton wool/balls/gauze. Pay particular attention to axillae, groins and perineum. Rinse thoroughly from skin before drying. Apply a small amount of mupirocin 2% ointment as prescribed to each nostril three times per day. Decolonisation should be continued for five days.

Cord care is extra important in these cases. Consider topical cord care.

NB: An alternative to Mupirocin must be considered when the patient is receiving oxygen therapy.

7.12 Treatment of Infections in Patients

Consult with the Consultant Microbiologist who will advise on the most appropriate treatment. This is of course dependent upon the antibiotic sensitivity pattern of the infecting organism.

8.0 TRANSFER & DISCHARGE OF PATIENTS COLONISED OR INFECTED WITH MRSA

8.1 Within the Hospital

Transfer of MRSA affected patients to other wards should be minimised to reduce the risk of spread but this should not compromise other aspects of care such as rehabilitation. (See also Infection Control Guidance for the Segregation & Intra-Hospital Transfer of Patients.)

The patient should have clean clothing before transfer.

The patient should be transferred to a bed with clean linen. The patient's original bed linen should be left behind on the ward and disposed of as infected linen.

Transport of the patient should be carefully supervised:

Lesions should be occluded whenever possible with an impermeable dressing.

Attendants who may be in contact with the patient should wear aprons when contact is likely. This is unnecessary if contact is unlikely. Aprons should be removed when contact with the patient has finished and disposed of as clinical waste.

Gloves should only be worn where risk assessment has indicated they are necessary.

The trolley or chair should be cleaned with Actichlor plus and dried thoroughly after use by the patient and before being used for another patient. All linen should be dealt with according to the Safe Management of Linen Policy.

Staff should decontaminate hands thoroughly with soap and water or alcohol hand rub after dealing with the patient and cleaning the trolley or chair.

8.2 Visits to Outpatients and Specialist Departments

Visits by MRSA positive patients to other departments should be kept to a minimum. If this is necessary, either for investigation or treatment, prior arrangements should be made with senior staff of the receiving department, so that control of infection measures for that department can be implemented. These should include:

Deal with these patients at the end of the working session if at all possible.

The patient should spend the minimum time in the department being sent for when the department is ready and not left in a waiting area with other patients.

Staff coming into direct hands on contact with the patient should wear disposable aprons. Disposable gloves must be worn for contact with infected dressings, secretions, excretions etc. The importance of hand washing should be emphasised. Staff should avoid direct contact with other patients whilst dealing with an MRSA patient.

Equipment and the number of staff attending should be kept to a minimum.

Surfaces with which the patient has direct contact should be wiped clean using Actichlor plus and dried thoroughly.

Linen should be treated as infected linen according to the Safe Management of Linen Policy.

Staff should decontaminate hands thoroughly with soap and water or alcohol hand rub after dealing with the patient.

Transport measures should be indicated as above.

8.3 Surgical Operations/Special Procedures

MRSA is not an absolute contraindication for patients undergoing surgery or special procedures. A risk assessment must be undertaken in conjunction with the Infection Control Team. However, every effort should be made to eliminate MRSA before surgery. If not possible the following should be performed prior to surgery:

Bathe the patient in a Triclosan-containing agent.

Cover any affected lesion with an impermeable dressing.

Apply Mupirocin to the nose before the operation if the patient is a nasal carrier.

Prophylaxis with Vancomycin or Teicoplanin should be considered in place of routine prophylaxis for patients undergoing surgery, particularly if high risk such as implant surgery, who may have been exposed to risk of acquisition of the strain during an outbreak on their ward. Advice can be obtained from the Microbiologist where required.

Patients should be allowed to recover after surgery in the Operating Theatre or an area not occupied by other patients to avoid possible contamination of the usual recovery area.

Theatre surfaces in close contact or near the patient, such as the operating table or instrument trolley, should be disinfected with Actichlor plus before being used for the next patient.

8.4 Ambulance Transportation

When ordering transport the Ambulance Liaison Officer (ALO) must be informed that the patient is colonised/infected with MRSA. It is helpful if staff assist the ALO to make a risk assessment according to the Ambulance Policy (see below).

The vast majority of patients fall into the following category:

- Patients that are able to keep their colonised/infected areas of skin enclosed by dressings or normal clothing. These patients may travel with other patients and no protective action is necessary.
- Patients should have received their decolonisation treatment and wear clean clothing before travel.

A small minority of patients have MRSA with additional complications eg:

- Exposed areas of skin or where a heavy colonisation on multiple body sites is identified.
- Co-existent with extensive eczema or psoriasis.
- Coughs with sputum colonisation.

In these cases, it is recommended that the patient is transported on their own.

8.5 Transfer to Another Hospital

MRSA colonisation or infection should not be a barrier to good clinical care. Consequently, inter-hospital transfers for good clinical reasons should not be prevented. However, unnecessary movement should be avoided.

Identification of infected or colonised patients is the responsibility of the transferring hospital. Before transfer, the clinician responsible for the patient at the transferring hospital should inform the Clinicians and/or Infection Control Team at the receiving hospital.

Nursing staff should complete the inter-healthcare Infection Control Notification Form.

9.0 Discharge of Patients

MRSA patients should be discharged promptly from hospital when their clinical condition allows. MRSA carriage should not delay discharge.

The General Practitioner and other health care agencies involved in the patient's care should be informed by ward staff. Positive results received by the Infection Prevention & Control Nurses after the patient's discharge are to be communicated to the Community IPCN via telephone.

MRSA carriers will not normally require special treatment after discharge from hospital. However, primary treatment courses should be completed.

If the patient is discharged to a nursing or convalescent home, the care home should be informed in advance by the ward discharging the patient and the Inter-healthcare Infection Control Notification Form completed. Carriage of MRSA is not a contraindication to the transfer of a patient to a nursing or convalescent home.

Patients should be informed that there is no risk to healthy relatives or others outside the hospital.

There is no indication for routine screening before hospital discharge to the community.

As a prophylactic measure, all patients being discharged home with an invasive device should have a 28-day supply of Triclosan body wash prescribed as a TTO.

10.0 Deceased Patients

The Infection Control precautions for handling deceased patients are the same as those used in life. Any lesion should be covered with impermeable dressings. Plastic body bags are not necessary. There is negligible risk to relatives, Mortuary staff or undertakers, as long as basic Infection Control precautions are followed. See Last Offices Policy.

11.0 Monitoring Compliance and Effectiveness

Branch/Directorate Management Team/Site specific Infection Control Groups will be responsible for monitoring compliance with and assessing the effectiveness of this policy using specific Infection Control Audit Tools.

12. 0 Associated Documents

Infection Prevention and Control - Overview of Trust Approach and Arrangements

NLAG Triclosan for All Policy

NLAG Infection Control Guidance for the Segregation and Intra-Hospital Transfer of Patients

NLAG Decontamination Policy

NLAG Glove Usage Policy

NLAG Hand Decontamination Policy

NLAG Isolation Policy

NLAG Safe Management of Linen Policy

NLAG Last Offices Policy

NLAG Infection Control Guidelines for the Wearing of Personal Protective Equipment

NLAG MRSA Care Pathway

NLAG MRSA/HCAI Action Plan

NLAG Inter-healthcare Infection Control Notification Form

NLAG Infection Control Discharge Advice for Patients and Carers.

NLAG Infection Control Information Leaflets for Patients and Staff

13.0 References

Coia et al (2006). Guidelines for the control and prevention of meticillin-resistant staphylococcus aureus (MRSA) in healthcare facilities by the Joint BSAC/HIS/ICNA Working Party on MRSA. Journal of Hospital Infection; Vol 63, Supplement 1.

Dept of Health (2006). Going further faster: Implementing the Saving Lives delivery programme. Sustainable change for cleaner, safer care.

Dept of Health (2007). Clean, safe care: reducing MRSA and other healthcare-associated infections - a national update.

Dept of Health (2007). Screening for Meticillin-resistant Staphylococcus aureus (MRSA) colonisation: a strategy for NHS Trusts - a summary of best practice.

Dept of Health (July 2008). MRSA Screening – Operational Guidance. Gateway reference number 10324.

Dept of Health (December 2008). MRSA Screening – Operational Guidance 2. Gateway reference number 11123.

Epic 2. National Evidence-based Guidelines for Preventing Healthcare-associated Infections in NHS Hospitals in England. Journal of Hospital Infection (2007).

<http://www.clean-safe-care.nhs.uk/>

14.0 Definitions

N/A

15.0 Consultation

Infection Prevention & Control Team

Infection Control Committee

16.0 Dissemination

This policy will be placed on the Infection Prevention and Control section of the NLAG intranet

The Infection Control Team will also issue a briefing paper, highlighting the main changes in the revised policy, and this will be circulated to all divisions.

Education and Support Plan

Education sessions will be provided by the Infection Prevention & Control Team, and these will be available for all Trust staff. Infection Control link staff will be provided with education sessions about the policy at their meetings.

17.0 Implementation

It is the responsibility of each Division/ Directorate to identify relevant members of staff involved in patient care and to ensure that they are fully informed and competent in the practices outlined in this policy.