Wrightington, Wigan and Leigh Teaching Hospitals
NHS Foundation Trust

STANDARD OPERATING PROCEDURE	**MRSA Methicillin Resistant Staphylococcus Aureus**
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VERSION NUMBER	**12**
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AUTHOR(S)	**CONSULTANT MICROBIOLOGIST/ DEPUTY DIRECTOR OF INFECTION PREVENTION AND CONTROL (DIPC)**
DIVISION/DIRECTORATE	**CORPORATE**
ASSOCIATED TO WHICH POLICY?	**TW10/116 MRSA SCREENING POLICY**
CONSULTED WITH?	**INFECTION PREVENTION AND CONTROL**

DATES PREVIOUS VERSION(S) RATIFIED	**Version:1** **2** **3** **4** **5** **6** **7** **9** **10** **10.1** **10.2** **10.3** **11** **11.1** **11.2** **11.3**	**Date: June 2001** **September 2004** **March 2005** **August 2007** **March 2009** **June 2009** **June 2010** **July 2011** **May 2013** **March 2014** **July 2014** **November 2015** **November 2016** **October 2017** **January 2018** **March 2019**
DATE OF NEXT REVIEW	**January 2023, now extended to February 2025**	
MANAGER RESPONSIBLE FOR REVIEW	**Consultant Microbiologist/Deputy DIPC**	

The WWL Way

AT ALL TIMES, STAFF MUST TREAT EVERY INDIVIDUAL WITH RESPECT AND UPHOLD THEIR RIGHT TO PRIVACY AND DIGNITY

1. PURPOSE OF STANDARD OPERATING PROCEDURE (SOP)

1.1. To reduce spread of Methicillin Resistant *Staphylococcus aureus* (MRSA) to an absolute minimum.

1.2. To manage patients colonised with MRSA safely and appropriately.

2. INTRODUCTION

Methicillin-Resistant *Staphylococcus aureus* (MRSA) was first identified in the 1960's but continues to pose a problem to hospitals as it is resistant to antibiotics such as flucloxacillin, the standard treatment for *Staphylococcus aureus* infection. MRSA infection remains treatable but requires use of antibiotics such as vancomycin and teicoplanin. These agents are expensive, have to be given by injection and may have side effects. Resistance to these agents has also been reported. Because of these features, emphasis is placed on preventing the spread of MRSA between patients.

3. SCREENING OF PATIENTS FOR METHICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA) CARRIAGE

3.1. Screening method - See Appendix 2 for screening method.

3.2. Pre-admission Screening (Elective Admissions):-

3.2.1. All elective admissions, including day cases, must be screened for MRSA prior to admission unless in a category exempt from the requirement. Patient categories exempt from the screening requirements are detailed in Appendix 3.

3.2.2. Patients found to be colonised with MRSA should undergo effective decolonisation before admission. Patients remaining persistently MRSA positive (for example: remain MRSA positive following two complete courses of decolonisation therapy) or who require urgent admission should be discussed with the Infection Prevention and Control Team.

3.2.3. Patients listed for elective procedures should be screened for MRSA carriage before admission. This should be done 12 weeks (or less) in advance of the surgery. The patient should then be contacted two weeks before surgery and again on admission and asked if they have had any subsequent exposure to MRSA or had an overnight stay in a healthcare setting such as a hospital or nursing home. Patients who have ongoing exposure to MRSA (nursing home residents, health care workers, patients admitted to hospital in the interval between screening and their elective procedure) should be admitted to a side room pending the results of a further screen.

3.3. Admission Screening (Emergency Admissions):-

3.3.1. All emergency admissions must be screened for MRSA carriage at admission in the inpatient area unless in a category exempt from the requirement. Patient categories exempt from the requirements are given in Appendix 3. Screening should be performed as part of the admission procedure. The methodology is given as a flow diagram in Appendix 9.

3.3.2. Patients on the following clinical areas are at increased risk of poor outcome from MRSA infection and should be screened on admission to these units and thereafter as indicated.

3.4. Intensive Care Unit/High Dependency Unit (ICU/HDU):-

3.4.1. Screen all patients on admission and weekly thereafter. Admit all patients transferred from another hospital or other areas of high MRSA prevalence direct to a side room pending screening results.

3.4.2. Commence the MRSA decolonisation regime (see Appendix 5) whilst awaiting the results of the initial screen. This may be discontinued if initial screen is negative and patient does not have a past history of MRSA.

3.5. Special Care Baby Unit:
Screen all patients on admission and weekly thereafter. Admit all patients transferred from another hospital or other areas of high MRSA prevalence to a side room pending screening results. For colonisation in pregnancy see Appendix 7. For decolonisation of MRSA positive patients under four months old (and all those in NNU/SCBU) see Appendix 8.

3.6. Aspull Ward (Emergency Orthopaedic):
Admissions (elective and trauma) to Aspull Ward at the Royal Albert Edward Infirmary (RAEI) should be screened on admission.

3.7. Patients attending the Oncology Unit will be screened at start of treatment. Further screens will be performed at 3 to 4 weekly intervals as dictated by the frequency and duration of treatment cycles. Patients who are found to be MRSA positive will be decolonised and managed following existing trust guidance. This may necessitate involving district nurses to undertake rescreens.

3.8. Details of patient's MRSA history are recorded in the patient header on HIS.

3.9. Patients transferred from other health care facilities: - All patients transferred from other health care facilities must be screened for MRSA carriage on arrival on Trust premises.

3.10. Screening for MRSA in Areas with Increased Incidence:-

3.10.1. MRSA colonisations are continually monitored by the Infection Prevention and Control Team. Decisions to screen patient contacts will be made by the Team following assessment based on - ward type, number of new detections, staffing levels and availability of isolation facilities.

3.10.2. Staff screening is not routinely performed. However, staff will be asked about skin lesions. Staff with skin lesions, are at increased risk of MRSA colonisation and transmission. Staff with skin lesions will be referred to the Occupational Health Department for screening and management. See Appendix 6 for colonised or infected Health Care Workers.

3.10.3. Staff screening may be instigated by the Infection Prevention and Control Team in the following circumstances:-

3.10.3.1. Continued transmission in a unit despite active control measures.

3.10.3.2. Epidemiology suggestive of staff carriage.

3.11. Informing Patients of Screening Results:
All patients should be informed of their MRSA screening results and given written information. For in-patients it is the responsibility of the clinician in charge of the patient to do this. For patients found to be MRSA positive who have already been discharged, the Infection Prevention and Control Team will write to the General Practitioner if the MRSA status is new and update HIS.

4. MANAGING A MRSA COLONISED PATIENT

4.1. Informing Patients about MRSA Carriage: (Patients should be informed of their MRSA status as in Section 3.10).

4.2. Decolonisation of MRSA Patients:
All inpatient MRSA positive patients should undergo decolonisation. Details are given in Appendix 5. Patients discharged prior to positive MRSA screening results becoming

available will not routinely be offered decontamination treatment unless listed for further surgical procedures. If inpatients remain MRSA positive after their third round of decolonisation, please discuss with Infection Prevention and Control who will assess the patient and provide advice regarding further decolonisation. Long term continuous decolonisation treatment might be recommended. In this situation, continuous treatment with Octenisan wash and nasal gel will be instigated with no breaks or rescreens while the patient is in hospital. This relates to MRSA screens only; clinically indicated swabs should still be taken as required. There is a 'long term continual decolonisation' form available on the intranet if required.

4.3. Infection Prevention and Control Precautions:
All MRSA positive patients should be managed using a combination of Standard Infection Prevention and Control Precautions and Contact Infection Prevention and Control Precautions. Details are given below.

4.4. Standard Infection Prevention and Control Precautions: - These measures apply to all patients, regardless of MRSA status.

4.4.1. High standards of hand decontamination are required to minimise the risk of cross infection. Hands should be decontaminated before and after every patient contact.
4.4.2. Hand washing should be with liquid soap and water. Alcohol hand rub may be used as an alternative (see Hand Hygiene TW10-042 SOP 10).
4.4.3. Visitors having only social contact with the patient do not need to wear protective clothing.
4.4.4. Maintain high standards of aseptic non touch technique (ANTT).
4.4.5. Maintain high standards of ward cleanliness.
4.4.6. Re-usable equipment must be decontaminated before use on another patient. The Trust Decontamination of Reusable Medical/Nursing Equipment TW10-042 SOP 14 should be followed.
4.4.7. Antibiotics should be used in accordance with Trust Antibiotic Treatment TW10-136 SOP 1.
4.4.8. Minimise inter-ward transfer of patients.
4.4.9. Avoid overcrowding of patients.
4.4.10. Maintain adequate and appropriately skilled nursing and other staff levels.

4.5. Contact Infection Prevention and Control Precautions: - In addition to the Standard Precautions given above, the following additional precautions should be used for all MRSA positive patients:-

4.5.1. Place patient in a single room with en-suite facilities (see Appendix 4 for further information).
4.5.2. If a side room is unavailable:-

4.5.2.1. Maintain additional precautions in the bed space.
4.5.2.2. Contact bed manager to see if the patient can be accommodated on another ward.
4.5.2.3. Contact Infection Prevention and Control Team (on call out of hours).
4.5.2.4. Complete a Datix.
4.5.2.5. Dedicate personal toilet facilities/commode if possible.
4.5.2.6. Ensure all staff are carrying alcohol gel.
4.5.2.7. Inform Facilities Team.

4.5.3. If a number of MRSA positive patients are present, these may be managed in a cohort. This should only occur following discussion with the Infection Prevention and Control Team.
4.5.4. Wear gloves and disposable plastic aprons when handling the patient or having contact with their immediate environment.

4.5.5. All waste should be regarded as clinical waste and to be disposed of according to the Trust Waste Management Procedure TW10-022 SOP 3.
4.5.6. All linen to be treated as contaminated/infected and to be disposed of in an inner red alginate bag or alginate seamed/stitched bag placed within a white plastic outer.
4.5.7. Gowns may be required where extensive contact with the patient is anticipated.

4.6. Oral Hygiene:-

4.6.1. All MRSA positive patients need to maintain good standards of oral hygiene to minimise the occurrence of parotitis and abscess.
4.6.2. Patients with particular oral problems (for example: decay, ulcers etcetera.) should be referred to the dental department for assessment. Patients unable to maintain their own hygiene, or need to be assisted in this by nursing staff, should have all interventions documented.

5. MRSA BACTERAEMIA

5.1. MRSA bacteraemia (MRSA grown in blood cultures) is reportable through the Department of Health's Mandatory Surveillance Scheme. Every episode of MRSA bacteraemia is entered onto the enhanced surveillance scheme website by a Consultant Microbiologist and verified monthly by the Chief Executive.

5.2. All episodes of MRSA bacteraemia should undergo a Post Infection Review (PIR). This is to be performed by the matron in charge of the area from which the blood culture originated, with the assistance of the Infection Prevention and Control Team. The Trust document on PIR together with the PIR data collection form are both available on the Infection Prevention and Control website or direct from the Infection Prevention and Control Team. Clinical teams will be formally informed of MRSA bacteraemia episodes by the Infection Prevention and Control Team, normally one working day from occurrence.

6. TRANSFER AND DISCHARGE OF MRSA POSITIVE PATIENTS

6.1. Transfers within the Trust (Excluding Transfers to Wrightington):-

6.1.1. The receiving ward or department must be informed of the patient's MRSA status.
6.1.2. Lesions should be covered with an impermeable dressing where possible.
6.1.3. Porters are only required to wear aprons and gloves where contact with the patient is likely.
6.1.4. The patient should be transferred to a bed with clean linen. The patient's original bed and bed linen should remain on the original ward for decontamination.
6.1.5. The trolley or chair should be cleaned after use with a chlorine containing agent ("SoChlor" 1000 ppm).
6.1.6. Staff should thoroughly wash their hands with soap and water after removing any gloves and aprons. Alcohol gel may be used as an alternative.

6.2. Transfers from within the Trust to Wrightington Hospital – All Patients regardless of MRSA status:-

6.2.1. All patients being transferred to Wrightington Hospital must be screened on admission for MRSA carriage regardless of MRSA status.
6.2.2. Review notes to determine patient's past MRSA status.
6.2.3. Obtain a MRSA screen (see Appendix 2).
6.2.4. Negative MRSA screens will normally have results available on the laboratory system one working day from receipt.
6.2.5. If screening results are negative for MRSA in a patient not known to be MRSA positive in the past, transfer can occur within five days of taking these specimens unless they have been in direct contact with MRSA after the screen was taken.

6.2.6. If patient was known to be MRSA positive in the past or if screen reveals MRSA colonisation then commence decolonisation (see Appendix 5) and contact the Infection Prevention and Control Department for advice on further management.
6.2.7. Patients known to be MRSA positive requiring immediate transfer should be discussed with the Infection Prevention and Control Department.

6.3. Ambulance Transportation: - This will be in accordance with the Ambulance Service MRSA Policy. The following points should be noted:-

6.3.1. Most MRSA positive patients can be transported with others in the same ambulance without any special precautions.
6.3.2. If patient is a heavy disperser for example: discharging lesion that cannot be covered by an impermeable dressing, advice should be obtained from a member of the Infection Prevention and Control Team.
6.3.3. No additional cleaning of the ambulance is required.

6.4. Transfer to Hospitals External to the Trust:-

6.4.1. MRSA colonisation should not be a barrier to good clinical care and transfers for good clinical reasons should not be prevented.
6.4.2. Unnecessary movement should be avoided.
6.4.3. Before a transfer, the Infection Prevention and Control Team and the ward at the receiving hospital must be informed. It is the responsibility of the clinician to inform them directly or via the Trust Infection Prevention and Control Team.

7. VISITS TO OUTPATIENTS AND OTHER SPECIALIST DEPARTMENTS

7.1. Visits by MRSA positive patients should be kept to a minimum. However, MRSA colonisation must not prevent necessary investigations or treatment from being performed.

7.2. The ward referring the patient must inform the department of the patient's MRSA status at the time of request.

7.3. Patients should be dealt with at the end of the list if possible.

7.4. The patient should spend minimum time necessary in the department, being summoned from the ward only when the department is ready.

7.5. Staff coming into close contact should wear aprons and gloves. Hands should be washed in soap and water after glove removal. Alcohol gel may be used as an alternative.

7.6. Equipment and staff attending should be kept to a minimum.

7.7. Surfaces with which the patient had direct contact should be washed after use with a chlorine containing agent ("SoChlor 1000 ppm" can made up as directed in the Trust Decontamination of Reusable Medical/Nursing Equipment TW10-042 SOP 14).

8. SURGICAL/INVASIVE PROCEDURES IN MRSA POSITIVE PATIENTS

8.1. Elimination of MRSA colonisation should be attempted before admission for elective surgery using the decolonisation regime (see Appendix 5). If decolonisation fails, or in an emergency, the following should be undertaken to reduce the bacterial inoculum that may be introduced into the wound.

8.2. Daily skin and hair washes with an antiseptic agent should begin at least forty-eight hours pre-operatively (see Appendix 5 for method). Apply undiluted skin wash directly to wet skin to all areas and rinse off. Do not dilute skin wash in bath water.

8.3. Apply Octenisan Nasal Gel to the nose from at least forty-eight hours before the operation.

8.4. Cover affected lesions with an impermeable dressing immediately pre-operatively.

8.5. Antibiotic prophylaxis requirements should be discussed with the Consultant Microbiologist. Standard regimes do not cover MRSA.

8.6. Theatre surfaces in contact with, or near to the patient (for example: operating table, instrument trolley), should be washed with a chlorine containing agent ("SoChlor" made up as directed in the Trust Decontamination of Reusable Medical/Nursing Equipment TW10-042 SOP 14) after the procedure.

8.7. Theatre ventilation systems remove bacteria from the air within 15 minutes. Therefore, MRSA patients do not routinely need to be placed at the end of a list. However, it may be operationally simpler to place them at the end of the list to ensure there is adequate time to decontaminate surfaces.

8.8. If the patient is to be transported on their own bed, the frame must be washed with a chlorine-containing agent ("SoChlor" made up as directed in the Trust Decontamination of Reusable Medical/Nursing Equipment TW10-042 SOP 14) and clean linen put on prior to use.

8.9. Continue the decolonisation regime (see Appendix 5) post operatively and manage as per care pathway if patient remains in hospital.

9. DECEASED PATIENTS WITH MRSA

9.1. MRSA poses minimal risk to those handling deceased patients providing the same Standard Infection Prevention and Control precautions used with live patients are continued after death.

9.2. Lesions should be covered with impermeable dressings.

9.3. Cadaver bags are not necessary for MRSA positive patients.

10. DISCHARGE OF MRSA POSITIVE PATIENTS

10.1. Generally, there is no need for MRSA positive patients to continue with eradication protocols following discharge. This may be varied in the event of anticipated re-admission, especially for a planned invasive procedure.

10.2. Patients, and their appropriate contacts, should be given relevant information on MRSA, its significance and implications, prior to discharge, in order to reduce unnecessary anxiety and concern when returning to the home environment.

10.3. If the patient's MRSA status is considered relevant it must be included in the electronic patient discharge letter written by the Consultant's Team.

11. HUMAN RIGHTS ACT

Implications of the Human Rights Act have been taken into account in the formulation of this SOP and they have, where appropriate, been fully reflected in its wording.

12. ACCESSIBILITY STATEMENT

This document can be made available in a range of alternative formats for example: large print, Braille and audio cd.

For more details please contact Human Resources Department on 01942 77(3766) or email equalityanddiversity@wwl.nhs.uk.

APPENDIX 1

REFERENCES:

Guidelines for the Control and Prevention of Methicillin-resistant *Staphylococcus aureus* (MRSA) in Healthcare Facilities by the Joint BSAC/HIS/ICNA Working Party on MRSA. Journal of Hospital Infection, 2006; 63, Suppl: S1-S44.

Screening for Methicillin-resistant *Staphylococcus aureus* (MRSA) colonisation: A strategy for NHS Trusts: a summary of best practice. Department of Health, 2006 (accessed 15th May 2007 at www.dh.gov.uk/reducingMRSA).

MRSA Screening – Operational Guidance, Gateway Reference 10234 Department of Health, 31 July, 2008.

MRSA Screening – Operational Guidance 2, Gateway Reference 11123 Department of Health, 31 December, 2008.

Screening Elective Patients for MRSA – FAQs. Version 5. Department of Health, May 2009.

Screening Emergence Admissions for MRSA – FAQ version 1. Department of Health, March 2010.

MRSA Screening – Operational Guidance 3. Gateway Reference 13482. Department of Health, March 2010.

Implementation of Modified Admission MRSA Screening Guidance for NHS (2014). Department of Health, June 2014 (accessed at www.gov.uk on 19/10/16).

Use of Octenisan wash lotion and Octenisan wash mitts on children and babies. Schulke & Mayr GmbH. Communication, 12 December 2012.

Neonatal Guidelines 2017-19. Issue 6. The Bedside Clinical Guidelines Partnership, Staffordshire, Shropshire and Black Country Newborn and Maternity Network and Southern West Midlands Maternity and Newborn Network.

APPENDIX 2

SCREENING METHOD FOR MRSA

1. Routine microbiology swabs should be used.

2. Samples should be taken under the direct supervision of a member of Trust staff to ensure correct sampling technique is used.

3. The swab should be rubbed and rotated 10 to 20 times over the area to be sampled.

4. The swab should be labelled with patient name, number, date, ward, sampling site. Swabs taken for pre-admission screens for elective procedures must be appropriately labelled as being from a pre-admission clinic. They must not be labelled as originating from a ward area as this will lead to failure to identify them as pre-admission screening samples.

5. The following sites should be sampled in all cases:

5.1 Nose.
5.2 Perineum or groin (send a single swab only. Do not sample both sites).
5.3 Umbilicus (neonates only).

6. The following should also be sampled if present:

6.1 Lesions/wounds.
6.2 Catheter urine.
6.3 Intravascular catheter sites.
6.4 Tracheostomy site.
6.5 Sputum if productive cough present.

7. Other sites will not be routinely processed by the Laboratory.

8. The samples should be sent immediately, together with a completed request form to the Pathology Laboratory Reception at RAEI.

9. The minimum interval between MRSA screens is 48 hours.

10. Three sets of negative screens are necessary for clearance. They must all include the site(s) originally found to be positive for MRSA. The patient must have discontinued any treatment for MRSA (including antibiotics active against MRSA such as teicoplanin) at least 48 hours before the screens are taken.

11. Screening samples from those colonised with MRSA sent from community sources will only be processed if a relevant clinical indication is given for example: awaiting surgery.

APPENDIX 3

MRSA ELECTIVE SCREENING: PATIENT CATEGORIES TO BE SCREENED AND EXCLUSIONS

PATIENT GROUP:	PREADMISSION SCREEN TO BE TAKEN IN:	EXCLUSIONS:
Surgery, Adult Elective (including orthopaedics).	Adult Pre-op Clinic.	Day case Ophthalmology. Day case Dental. Day case Chronic Pain.
Surgery, Paediatric Elective (including orthopaedics).	Not normally required.	Screening not undertaken in this category unless: 1. Past history of MRSA colonisation or infection. 2. Patient is cared for by Community Complex Care Team. 3. Transfer from another hospital.
Rheumatology, Elective.	Department/Ward admitting patient.	Joint injections.
Medical, Adult Elective.	Department/Ward admitting patient.	1. Chronic Obstructive Pulmonary Disease (COPD) Unit attendees. 2. COPD patients attending as day cases. 3. Liver biopsy day cases. 4. Dermatology day cases including minor operative procedures. 5. Day case endoscopy [all types including: Nasoscope, Bronchoscopy, Cystoscopy, Colonoscopy, oesophago-gastro- duodenoscopy (OGD)].
Medical, Paediatric Elective.	Not normally required.	Screening not undertaken in this category unless: 1. Past history of MRSA colonisation or infection. 2. Patient is cared for by Community Complex Care Team. Transfer from another hospital.
Gynaecology, Elective.	Department/Ward admitting patient.	Termination of pregnancy.
Obstetrics, Elective.	**NOTE:** Majority are excluded from Elective MRSA screening requirements. Antenatal Clinic.	All elective Obstetric patients are excluded apart from: 1. Undergoing elective caesarean section. 2. High risk for MRSA carriage (for example: Health Care Workers). 3. Baby likely to require Neonatal Unit admission.
Haematology, Elective.	Department/Ward admitting patient.	Admission solely for transfusion.
Oncology, Elective.	Department/Ward.	Nil. Screen at commencement of treatment further rescreens will be dictated by the frequency and duration of treatment taking place. Usually at 3 to 4 week intervals thereafter.
Planned Investigation Unit (PIU).	Not screened.	All PIU attendees are excluded from elective screening requirements.
Neonatal Unit.	On admission.	Nil.

MRSA ELECTIVE SCREENING: PATIENT CATEGORIES TO BE SCREENED AND EXCLUSIONS

PATIENT GROUP:	ADMISSION SCREEN TO BE TAKEN IN:	EXCLUSIONS:
Surgery, Adult Emergency (including orthopaedics).	Admissions Unit or admitting ward.	Nil.
Surgery, Paediatric Emergency (including orthopaedics).	Not routinely required.	All patients are excluded apart from: 1. Past history of MRSA infection/colonisation. 2. Complex Care patients.
Rheumatology, Emergency.	Department/Ward admitting patient.	Nil.
Medical, Adult Emergency.	Medical Admissions, Clinical Decision Unit, Admitting ward/department for example: CCU, ICU. All patients to have MRSA screening performed within 48 hours of admission.	Nil.
Medical, Paediatric Emergency.	1. Not routinely required.	All patients are excluded apart from: 1. Past history of MRSA infection/colonisation. 2. Complex Care patients. 3. 'High risk' for MRSA for example: admitted from other hospital.
Gynaecology, Emergency.	Department/Ward admitting patient.	Nil.
Obstetrics, Emergency.	Maternity Ward/Labour Ward.	All elective Obstetric patients are excluded apart from: 1. Patients requiring emergency caesarean section. 2. Past history of MRSA infection/colonisation. 3. Baby likely to require Neonatal Unit admission.
Haematology, Emergency.	Department/Ward admitting patient.	Nil.
Oncology, Emergency.	Department/Ward admitting patient.	Nil.
Neonatal Unit.	On admission.	Nil.

APPENDIX 4

ISOLATION OF MRSA PATIENTS

1. FACILITIES

1.1 MRSA patients should be managed in a single room with en-suite facilities. The door should remain closed, particularly if the generation of aerosols is likely.

1.2 If isolation facilities are unavailable:

1.2.1 Maintain additional precautions in the bed space.
1.2.2 Contact bed manager to see if the patient can be accommodated on another ward.
1.2.3 Contact the Infection Prevention and Control Team (on call out of hours).
1.2.4 Complete a Datix.
1.2.5 Dedicate personal toilet facilities/commode if possible.
1.2.6 Ensure all staff are carrying alcohol gel.
1.2.7 Inform Estates Team.

1.3 Consider cohort nursing when: single rooms/isolation rooms are not available and where several patients with the same confirmed organism have been identified, these patients may be placed together in a bay. Infection Prevention and Control must be consulted first. The patient must be isolated at the earliest opportunity.

2. BASIC SET-UP OF SIDE ROOMS FOR ISOLATION

2.1 Ensure side room has been terminally decontaminated on the discharge of the previous occupant.

2.2 The side room should ideally contain en-suite facilities and a clinical hand hygiene sink. If there is no toilet, a dedicated commode should be used.

2.3 Place appropriate information notices on the outside of the side room door (see Isolation of Patients with Infectious Diseases TW10-042 SOP 18).

2.4 The sink should have adequate supplies of liquid soap and paper towels. Alcohol hand rub may be used to augment hand hygiene.

2.5 Unnecessary furniture and equipment should be removed from the room before use.

2.6 Gloves, aprons and any other protective equipment required should be kept outside at the entrance to the side room. Don equipment on entry and dispose of within the side room on completion.

2.7 Hands must always be washed before leaving the side room. Alcohol gel may be used to augment this. Use of gloves does not remove need to wash hands.

2.8 Clinical waste bags should only contain clinical waste generated within the side room.

2.9 Used linen should be placed in red alginate bags or alginate seamed/stitched bags and placed within a white polythene outer bag within the side room. These should not be over filled.

2.10 Ensure all equipment used for the care of the patient is appropriately decontaminated on its removal from the room.

3. PROTECTIVE CLOTHING

3.1 Disposable aprons and gloves should be worn by all staff handling the patient or having contact with their immediate environment.

3.2 Masks – these are not required.

4. CLEANING AND DISINFECTION

4.1 Liquid soap must be available for hand washing.

4.2 Alcohol hand rub may be used as an alternative for hand hygiene (see Hand Hygiene TW10-042 SOP 10).

4.3 Hand hygiene must be performed before and after contact with the patient or their environment. The wearing of gloves does not remove the need for this.

4.4 Ward equipment for example: sphygmomanometers, stethoscopes, lifting slings etc. should be dedicated to the patient. If this is not possible, they must be decontaminated before use on another patient.

4.5 After the patient has vacated the side room, it must be cleaned, even if another MRSA patient is to use it. Curtains should be removed and sent for laundering before beginning to clean. If blinds are present, they should be sponged down. A chlorine containing agent ("SoChlor" 1000 ppm made up as directed in the Trust Decontamination of Reusable Medical/Nursing Equipment TW10-042 SOP 14) should be used for all cleaning. Horizontal surfaces and dust collecting areas require special attention. Pillows and mattresses should be checked for damage. Uncovered cloth pillows should be discarded. Covered pillows should be checked for damage and wiped down with 'SoChlor'. Therapy mattresses will require special decontamination methods as recommended by the manufacturer.

5. LINEN

5.1 Handle carefully to minimise the spreading of skin scales. Fold sheets carefully into the centre of the bed to prevent distribution of skin scales.

5.2 Place in a red alginate bag or alginate stitched/seamed bag then a white polythene outer for sending to laundry.

6. CLINICAL WASTE

6.1 Handle carefully.

6.2 Dispose of according to Trust Clinical Waste Management Procedure TW10-022 SOP 3.

7. CROCKERY

7.1 Disposable crockery is not required.

7.2 Used crockery should be returned to the kitchen for washing together with crockery from the rest of the ward.

8. VISITORS

8.1 Visitors should seek permission from the nurse in charge before entering the room.

8.2 Visitors only having social contact with the patient are not required to wear gloves or aprons.

8.3 If more extensive contact is anticipated then protective clothing should be worn.

8.4 Visitors must be instructed regarding hand hygiene on leaving the room.

8.5 Visitors should be discouraged from visiting other patients on the ward.

APPENDIX 5

DECOLONISATION OF MRSA POSITIVE PATIENTS: ADULTS AND CHILDREN OVER FOUR MONTHS OLD (IF IN NEONATAL UNIT CONTINUE TO FOLLOW METHOD IN APPENDIX 8)

1. DECOLONISATION METHOD

1.1 Use of Nasal Ointment:

1.1.1 Apply a small amount of Octenisan Nasal Gel to the inside of both nostrils with a cotton-wool swab twice daily for five days. Alternatively, the tip of a gloved finger may be used.
1.1.2 Octenisan Nasal Gel should always be used in conjunction with antiseptic skin wash (see below).
1.1.3 Do not re-sample the nose until treatment has been stopped for at least 48 hours.

1.2 Application of antiseptic skin wash:

1.2.1 Patients should bathe or shower daily for 5 days with antiseptic skin wash using the following method:

1.2.1.1 The skin should be moistened and the antiseptic skin wash applied directly to all areas before rinsing in a bath or shower. The skin wash should not be added to the bath water.
1.2.1.2 Particular attention should be paid to known carriage sites: axilla, groin and perineum.
1.2.1.3 The hair should be washed daily with the same antiseptic skin wash preparation.
1.2.1.4 The hair may subsequently be washed with conventional shampoo if desired.
1.2.1.5 If skin irritation develops, the Infection Prevention and Control Team should be contacted.
1.2.1.6 The standard antiseptic skin wash is “Octenisan” containing 0.3% octenidin hydrochloride.

1.2.2 Alternative preparations that can be used in case of intolerance/allergy or product non-availability include:

1.2.2.1 4% Chlorhexidine cleansing solution (Hibiscrub).
1.2.2.2 7.5% or 10% povidone iodine skin wash (Betadine, Videne).
1.2.2.3 2% Triclosan skin wash (Aquasept).

1.3 Patients who are pregnant, have abnormal thyroid function or are hypersensitive to iodine should not use skin washes containing iodine.

1.4 Patients with eczema, dermatitis or other skin conditions are likely to require treatment for these before MRSA eradication therapy. The Dermatology Department should be consulted for advice.

1.5 Clean clothing and bedding should be provided each day and at the end of a course of treatment.

1.6 For patients on the (Individualised Plan of Care) IPOC please contact Infection Prevention and Control.

2. DECOLONISATION REGIME

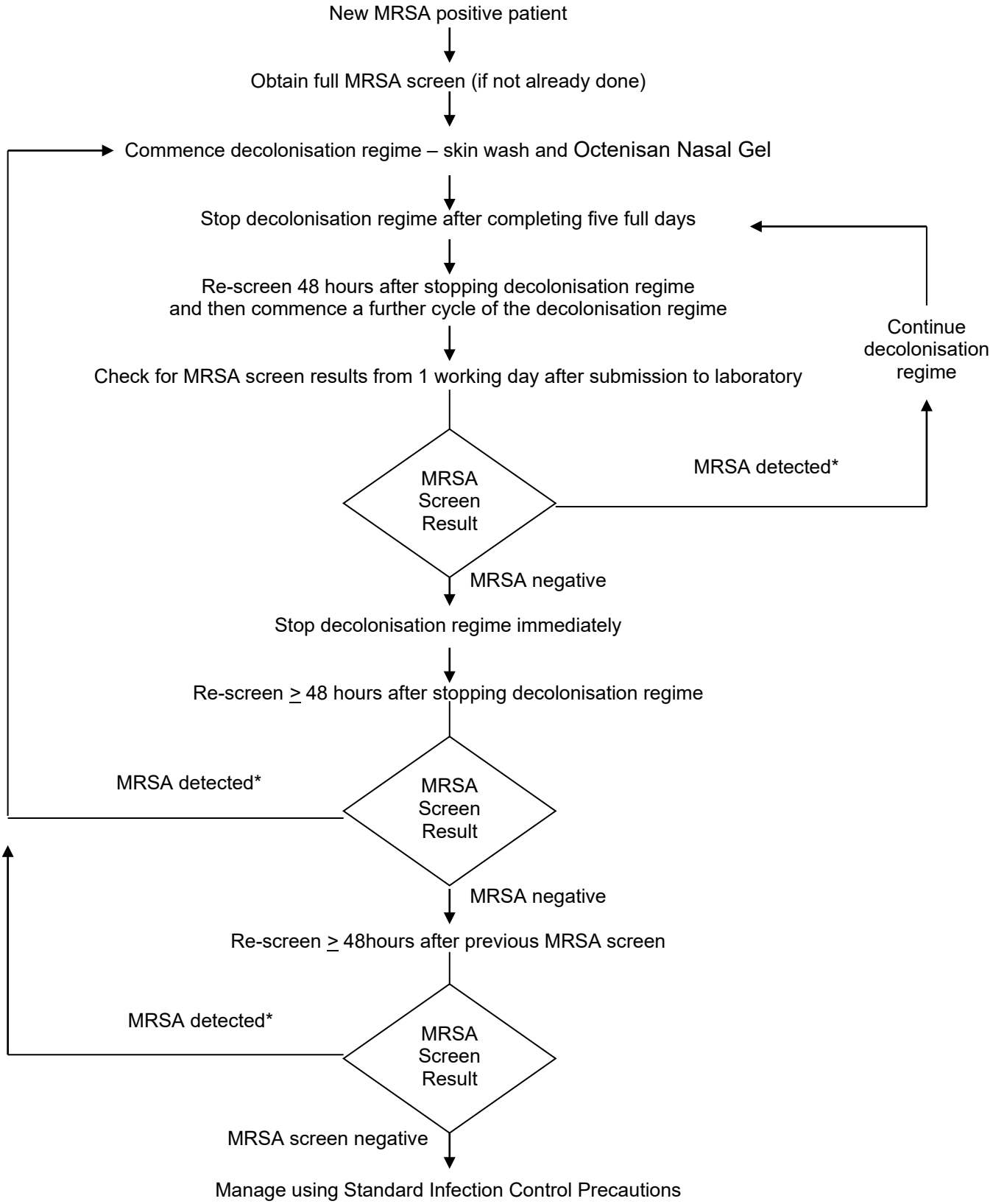
2.1 Follow flow charts below for either:

2.1.1 New MRSA positive patients (See Figure 1).

Or

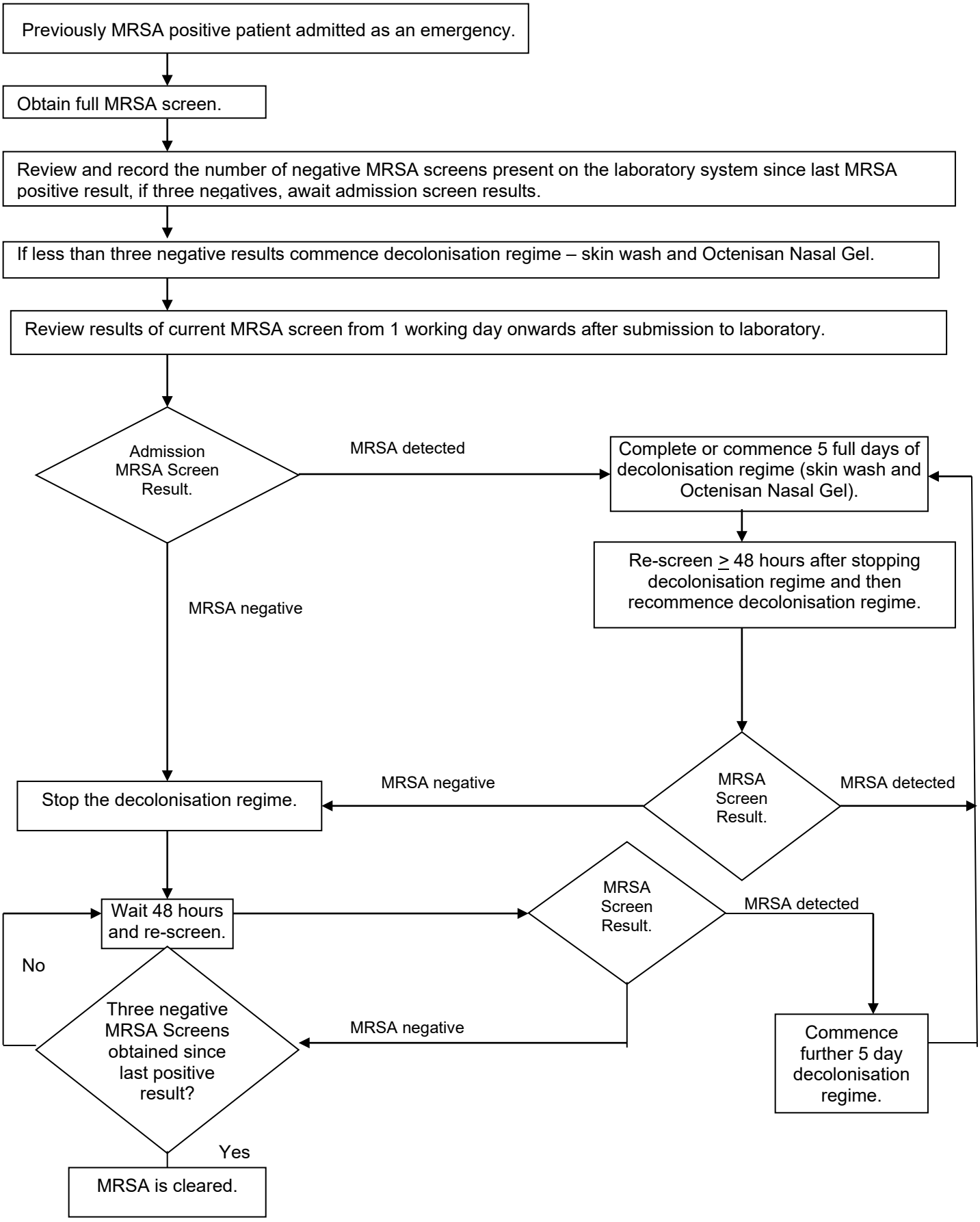
2.1.2 Emergency admission of patients known previously to be MRSA positive (See Figure 2).

FIGURE [1] - SCREENING AND DECOLONISATION OF NEW MRSA POSITIVE PATIENTS



* If unable to achieve three negative screens after three cycles of decolonisation treatment, discuss with the Infection Prevention and Control Team.

FIGURE [2] - SCREENING AND DECOLONISATION OF EMERGENCY ADMISSIONS KNOWN PREVIOUSLY TO BE MRSA POSITIVE



APPENDIX 6

MRSA COLONISED OR INFECTED HEALTH CARE WORKERS

1. Health Care Workers may be found to be colonised with MRSA either from screening during an outbreak or on routine clinical specimens taken for other reasons.

1.1 All MRSA colonised staff identified during screening should be referred to the Occupational Health Department (OHD) by their Line Manager and assessed in conjunction with the Infection Prevention and Control Team.

2. For Staff Working on 'High Risk' Areas (ICU/HDU, Neonatal Unit, Orthopaedic Surgery, Vascular Surgery):

2.1 A full screen for MRSA will be obtained (see Appendix 2).
2.2 The OHD will determine if infected lesions are present.
2.3 A decolonisation regime using antiseptic skin wash and nasal Octenisan Nasal Gel should be commenced (see Appendix 5).
2.4 Staff with infected or colonised hand lesions should remain off work until clearance is achieved or lesions have healed.
2.5 Staff with infected lesions (other than on the hands) may be moved to work in non 'high-risk' areas provided lesions are covered with an impermeable dressing and they have commenced nasal Octenisan Nasal Gel and antiseptic skin wash.
2.6 Staff without infected lesions may return to work 48 hours after commencing treatment with nasal Octenisan Nasal Gel and antiseptic skin wash.
2.7 Staff without infected skin lesions may also be moved to work on none 'high-risk' areas immediately upon commencing nasal Octenisan Nasal Gel and antiseptic skin wash.

3. For Staff Working on Other Clinical Areas:

3.1 A full screen for MRSA will be obtained (see Appendix 2).
3.2 The OHD will determine if infected lesions are present.
3.3 A decolonisation regime using antiseptic skin wash and nasal Octenisan Nasal Gel (see Appendix 5) should be commenced.
3.4 Staff with infected or colonised hand lesions should remain off work until clearance is achieved or lesions have healed.
3.5 Staff with infected lesions (other than on the hands) may continue to work provided lesions are covered with an impermeable dressing and they have commenced nasal Octenisan Nasal Gel and antiseptic skin wash.
3.6 Staff without infected lesions may return to work immediately upon commencing nasal Octenisan Nasal Gel and antiseptic skin wash.

4. Follow-up of Colonised/Infected Staff:

4.1 The OHD will make arrangements to obtain a full MRSA screen 48 hours or more after completing the decolonisation regime. Staff will be managed in accordance with Appendix 5 – Figure [1]. Three sets of negative screens indicate that clearance of MRSA has been achieved. However, in staff members with chronic conditions or previous relapse of MRSA carriage, additional screens may be judged necessary by the Infection Prevention and Control or Occupational Health Departments.

4.2 Staff members failing to clear MRSA after a third decolonisation course may require referral to other specialists such as a dermatologist. Further action will be decided upon on discussion between OHD and the Infection Prevention and Control Team.

APPENDIX 7

MRSA COLONISATION IN PREGNANCY

1. Routine screening of pregnant women is not performed due to the low incidence of MRSA in pregnancy. However, women who are booked for elective caesarian sections or at high-risk of complications in the mother and/or baby should be screened for MRSA carriage prior to admission for delivery. MRSA colonisation may also on occasion be detected in swabs taken for other reasons. Patients may also report, on attending for antenatal care, that they have previously been colonised with MRSA.

2. Patients found to be MRSA positive in the antenatal period or with a past history of MRSA should be managed as follows:

2.1 Obtain full MRSA screen (see Appendix 2).
2.2 Inform the Infection Prevention and Control Team.
2.3 Eradication of MRSA colonisation should be attempted as detailed in Appendix 5. Note that iodine containing products such as Betadine or Videne should not be used.
2.4 At least forty-eight hours after completing decolonisation treatment, a further full screen (including the initial site of colonisation) should be taken.
2.5 If MRSA negative, two further sets of screens should be obtained at a minimum interval of 48-hours.
2.6 If still MRSA positive, consult the Infection Prevention and Control Team to discuss further action.
2.7 A final screen should be performed at 38 weeks gestation (or within a 5 day period before an elective admission if less than 38 weeks gestation) to ensure patient remains clear of MRSA.
2.8 Patients with three negative screens post decolonisation and a negative screen at 38 weeks gestation can be considered as MRSA-negative and managed with Standard Infection Prevention and Control precautions during the delivery and post-natal care.
2.9 Patients known to remain MRSA positive at admission or who have not had a preadmission screen should be admitted to a side room and managed in accordance with the precautions detailed in Appendix 4. Procedures requiring antibiotic prophylaxis (for example: caesarean section) should be covered with agents active against MRSA. This would normally be teicoplanin 400mg IV at induction. Further advice may be obtained from the Consultant Microbiologist.

3. Patients found to be MRSA-positive postnataly should be managed as detailed in Appendices 4 and 5 of this SOP.

4. Babies born to mothers who are MRSA-positive should be managed as follows:

4.1 Obtain a full MRSA screen (nose, perineum, umbilicus, lesions) from the baby at birth.
4.2 Ensure that the team caring for the baby are aware of the potential for MRSA colonisation. This is of particular importance if being transferred to the Neo-natal Special Care Unit.
4.3 Contact the Infection Prevention and Control Department to discuss further management.

APPENDIX 8

DECOLONISATION OF MRSA POSITIVE PATIENTS: UNDER FOUR MONTHS OLD (AND ALL BABIES IN NEONATAL UNIT)

1. RECOMMENDATIONS

1.1 For infants under four months old (and all neonates regardless of age), nasal mupirocin is recommended for decolonisation if the MRSA isolate is susceptible.

1.2 If the neonate is >26 weeks gestation wash daily with Octenisan (Octenidine dihydrochloride) lotion.

1.3 Every case should be risk assessed prior to the treatment. (Octenisan has been previously used in babies and its active ingredient, Octenidine, does not cross into bloodstream. However, Octenisan comes under a cosmetic license and, therefore, requires an individual risk assessment. Octenidine has all the safety requirements for use on children less than 3 years old but the other components do not, hence the statement from the company saying they cannot recommend it for them).

1.4 A combination of washing the skin daily and application of Mupirocin nasal for a total of five days is used as detailed below. If MRSA reported as high level resistant to mupirocin, discuss with Consultant Microbiologist for alternative.

1.5 Chlorhexidine 4% disinfectant should not be used on the skin of premature infants, on account of the risk of burns and dermatitis.

2. PROCEDURE

2.1 These guidelines are appropriate for the treatment of babies with surface MRSA, however, discussion with the senior Clinician/Infection Prevention and Control Team, prior to use in very preterm infants is required.

2.2 The MRSA decolonisation must be prescribed in all positive cases.

2.3 The procedure has the potential to cause thermal instability, therefore risks and benefits must be considered prior to use.

3. EQUIPMENT REQUIRED

3.1 Octenisan (warmed) to be used as a skin wash.

3.2 Mupirocin nasal ointment 2% in soft white paraffin 2 - 3 times per day for 5 days.

3.3 Cotton buds to apply mupirocin ointment, silver dish, gauze swabs or cotton wool balls, clean hat, warm clean towel and warm clean bedding.

Action	Rationale
Discuss and agree procedure with medical staff to ensure it is safe to decolonise.	Patient safety.
Check prescription is signed in each box.	Patient safety.
Increase baby's temperature to 37.2 prior to procedure. Maintain humidity at level appropriate to the needs of the baby.	To minimize thermal instability.
Check baby's temperature at beginning of treatment.	To establish a baseline temperature.
Pre-warm clean bedding.	To promote thermal stability.
An assistant is very useful.	To expedite the procedure.
Ensure Octenisan solution is warm.	To prevent hypothermia.
Remove all leads except pulse oximetry lead.	For ease of treatment.
Place the infant on a clean warmed towel and remove bedding.	To maintain temperature.
Wipe the infants skin with gauze/cotton wool soaked in warmed Octenisan solution.	To ensure all areas are cleansed.
Leave the Octenisan in contact with the infant's skin for one minute and remove with warm clean water.	To maximize the effectiveness.
Dry the baby's skin with a warm towel.	To prevent thermal instability.
If the baby is nursed in a cot, ensure the room is warm and additional heating is close by.	To ensure thermal stability.
On day 1, 3, 5 wash the whole body, neck and face.	To ensure decolonisation of axillae, groin and skin.
On day 2 and 4 wash the whole body, neck, face and hair.	To ensure decolonisation of axillae, groin, hairline and skin.

APPENDIX 9

MRSA SCREENING OF EMERGENCY ADMISSIONS