Western Health and Social Care Trust

METICILLIN RESISTANT *STAPHYLOCOCCUS AUREUS* (MRSA) SCREENING AND MANAGEMENT POLICY

APRIL 2019

Western Health and Social Care Trust

Title:	Meticillin Resistant *Staphylococcus aureus* (MRSA) Screening and Management Policy		
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Links to Other Policies, Procedures, Guidelines or Protocols:	• Guidelines on the Management and Collection of Specimens • Aseptic Non-Touch Technique (ANTT) Guidelines • Infection Prevention & Control Standard Precautions Policy • Management of PVL-Associated MRSA/ MSSA Necrotising Pneumonia • Disinfection and Decontamination Policy (Patient Care Equipment) • Infection Prevention and Control Protocol for Peripheral Intravenous Cannulation and Access • Infection Prevention & Control Risk Assessment Guidelines for the Isolation/ Placement of Patients • Infection Prevention & Control Risk Assessment Form • Guidelines for the Care and Removal of Infected Bodies After Death • Guidelines for the Prevention of Infection in Central Venous Catheters (CVCs)		

	• Hand Hygiene Improvement Protocol • Support Services Infection Prevention Cleaning Procedures • Guidelines for the Prevention and Control of Infection Related to Urinary Catheter Care

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MRSA KEY POINTS

CLINICAL RISK ASSESSMENT (CRA) FOR MRSA SCREENING

For ADMISSIONS to High and Medium risk areas only

Please undertake a clinical risk assessment by asking the patient/ client the following questions. If unable to ask patient please consider known medical history (review patients medical notes) or ask next of kin if appropriate.
Exclude patients from low risk areas.

Question
Does the patient have a history of MRSA infection or colonisation (e.g. flagged on PAS system, patient centre, NIECR, TMS, GP reported, patient self-reported)? NB: Commence skin decolonisation as per WHSCT Antimicrobial Guidelines.
Is the patient being admitted from a long stay care facility or from any other hospital? This includes inter-hospital transfers (Altnagelvin Hospital, South West Acute Hospital, OHPCC and Waterside Hospital).
Wound/ ulcer or indwelling device present on admission?
Is the patient being admitted to a high risk area ICU, HDU, NICU, Renal and Dialysis, Oncology/ Chemotherapy and Haematology, Trauma and Orthopaedics, Vascular Surgery?
Is the patient attending a pre-op assessment clinic for planned surgery in elective orthopaedics/ cardiothoracic surgery, neurosurgery, vascular surgery, including stenting and major ENT surgery?
Frequent readmissions to any WHSCT healthcare facility? (3 or more admissions within the last year).
Inpatient for over 30 days?

If answering YES to any of the clinical risk assessment questions, then do Nasal and Groin swabs.

Transmission Based Precautions	• Isolate patient or cohort as per policy. Refer to the Priority for Isolation Risk Assessment Tool in Infection Prevention & Control Risk Assessment Guidelines for the Isolation/ Placement of Patients. If unable to isolate, the IP&C Team Mon-Fri 9am-5pm and Consultant Microbiologist 24 hours via switchboard can help you to risk assess. • Display and follow Contact precautions. • Enhanced daily room cleans. • Terminal clean on discharge.
Communication	• Inform all healthcare professionals involved in direct care regarding contact precautions including accepting wards/ depts. • Clinician responsible for care of patient should inform GP of new MRSA patient if discharged before result. • Provide and explain MRSA leaflet to patient.
Treatment as per **WHSCT Secondary Care Antimicrobial Guidelines**	
Colonisation: 5 or 10 Day Topical cream Treatment application for an adult patient colonised with MRSA	

Nasal	**<u>SENSITIVE</u>** Check lab report.	**<u>RESISTANT</u>** Check lab report.
	Apply to nasal passages 3 times a day for 5 days. The patient should be able to taste at the back of their throat after application.	Apply to nasal passages 4 times daily for 10 days. The patient should be able to taste at the back of their throat after application. **Note Caution on WHSCT Secondary Care Antimicrobial Guidelines.**
Skin and Hair Decolonisation		
Daily bath/ shower **Shampoo**	Bathe and shampoo hair daily for 5 or 10 days. The skin and hair should be moistened and the solution applied to all areas, especially known carriage sites such as axilla, groin and perineal area. Allow 15 seconds contact time. (Please note pump dispensers dispense 5 mls). Rinse off in bath or shower. Alternative as per **WHSCT Secondary Care Antimicrobial Guidelines**.	
Wound	Advice should be sought from the Tissue Viability Nurse, Consultant Microbiologist. Wounds should be kept completely covered until MRSA negative or wound has healed.	
Infection: Systemic Treatment for an adult patient <u>infected</u> with MRSA		
Intravenous	In addition to topical treatment the Patient will need systemic antibiotics, **as per WHSCT Secondary Care Antimicrobial Guidelines**. Discuss treatment regime with Consultant Microbiologist if necessary.	
History of MRSA Colonisation: Skin and Hair Decolonisation		
Daily bath/ shower **Shampoo**	Commence if the patient has a history of MRSA while awaiting swab results. Bathe daily and shampoo hair daily for 5 or 10 days. The skin and hair should be moistened and the solution applied to all areas, especially known carriage sites such as axilla, groin and perineal area. Allow 15 seconds contact time. (Please note pump dispensers dispense 5 mls). Rinse off in bath or shower. Alternative as per **WHSCT Secondary Care Antimicrobial Guidelines**.	
Post-Treatment: Treatment should stop after 5 or 10 days		
Rescreening	Weekly screens; Rescreen 3 times 48 hrs post completion of treatment and at weekly intervals.	

1.0 INTRODUCTION

1.1 Background

Staphylococcus aureus is a gram positive bacterium which is commonly found on the skin or in the nose of healthy people. At some point in their lives approximately 1 in 3 of the population carry *Staphylococcus aureus* without developing infection. While most of the *Staphylococcus aureus* group of bacterium are sensitive to Meticillin, known as Meticillin sensitive *Staphylococcus aureus* (MSSA), there is a sub-group resistant to treatment with Meticillin and other related antibiotics. This sub-group is known as Meticillin resistant *Staphylococcus aureus* (MRSA). If resistant to Meticillin, these strains of *Staphylococcus aureus* will be resistant to Flucloxacillin and all other β-lactam antibiotics.

MRSA may present itself on a person's skin without them being aware, and it may be of little risk to that individual. This is known as **colonisation**.

When a patient is first identified as MRSA positive they are flagged on the Patient Administration System (PAS) and Patient Centre system within the Western Health and Social Care Trust (WHSCT).

MRSA **infection** occurs when the bacterium enters the bloodstream or enters the body through a wound and usually follows colonisation.

1.2 Purpose

This policy document provides advice on the risk assessment and management of patients with MRSA. It aims to eliminate or minimise the risk of transmission to other patients, healthcare workers and others coming into contact with a person with MRSA.

2.0 SCOPE OF THE POLICY

This policy sets out details of the actions that need to be performed by all healthcare workers in the WHSCT when caring for a patient with a confirmed diagnosis of MRSA.

3.0 ROLES AND RESPONSIBILITIES

3.1 Trust Board and Chief Executive

Have an overall governance role in Infection Prevention and Control.

3.2 Senior Managers

Should ensure that staff have access to this policy and have assurance processes to ensure that staff are compliant with all aspects of this policy.

3.3 Ward Managers

Should ensure that:

- Staff have access to appropriate personal protective equipment (PPE) and are using it appropriately.

- An accurate record is maintained of patient placement within the ward at all times to facilitate accurate retrospective information gathering if required.
- Should ensure that staff have access to this and have assurance processes to ensure that staff are compliant with all aspects of this policy.

3.4 All Healthcare Employees within the WHSCT

Must be:

- Familiar with this policy and must comply with this policy.
- Encourage colleagues, patients/ clients and visitors to comply with IP&C precautions within this policy.
- Attend Induction/ Mandatory IP&C training.

3.5 Infection Prevention and Control Team (IPCT)

Will assist staff with risk assessing the need for isolation of patients.

3.6 Consultant Microbiologists

Will advise on IP&C issues for individual patients.

4.0 KEY PRINCIPLES

The overarching principle of this policy is to:

- Ensure safe standardised practice in relation to the management of patients infected and/ or colonised with MRSA in the WHSCT.

5.0 TRANSMISSION

There are two main ways MRSA can be transmitted:

Endogenous Spread: When someone is colonised with MRSA, they may spread it from an area of colonisation to another part of their body such as an open wound and cause an infection. This is why patients should be encouraged to wash their hands and be advised not to touch wounds, damaged skin or invasive devices.

Exogenous Spread: This occurs when organisms are transferred from person to person by direct contact. This can be via many routes – staff hands, dust, skin scales, environment and equipment. If the person is heavily colonised, or has a condition such as eczema; shedding/ distribution of skin scales may contaminate numerous surfaces, for example during bed making.

6.0 SCREENING

The transmission of MRSA and the risk of MRSA infection can only be prevented if measures are taken to identify carriers as potential sources, and then provide decolonisation treatment. Screening is one of a range of measures that the WHSCT has put in place to reduce transmission of MRSA. This requires screening of certain patient populations for MRSA carriage either before or on admission.

Prior to any screening taking place informed consent must be obtained and recorded in the patient's notes. If a patient refuses to be screened in a pre-assessment setting (after being given a full explanation of the reason for screening) they should still be offered a screen on admission. If they still decline on admission, document refusal in the patient's notes and inform the patient's consultant and the IPCT.

The decision as to who should be screened is influenced by:

- The patient's reason for admission,
- The risk status of the unit to which they are being admitted to,
- The likelihood that the patient is colonised with MRSA.

7.0 CLINICAL LOCATION/ SPECIALITY MRSA CATEGORISATION

Identify the risk status of the Clinical location/ speciality and if screening is required. They have been graded according to the risk of MRSA causing significant morbidity and mortality.

HIGH RISK AREAS **Screen all admissions including those identified through the Clinical Risk Assessment (CRA)**	• Intensive Care Unit • High Dependency Unit • Neonatal Intensive Care Unit/ Neonatal Unit • Orthopaedics • Trauma • Vascular • Haematology/ Oncology Ward • Radiotherapy • Renal and dialysis Unit (Altnagelvin and OHPCC) • Theatre Certain groups of patients housed in moderate and low risk areas can also be categorised as high risk: i. Those awaiting transplant surgery ii. Those awaiting orthopaedic surgery iii. Those awaiting cardiothoracic surgery iv. Those awaiting neurosurgery v. Those awaiting vascular surgery vi. Those awaiting pacemaker insertion vii. Those who have sustained extensive burns
MODERATE RISK AREAS **Use the Clinical Risk Assessment (CRA) to**	• CCU • Surgical • General Medicine • Ambulatory Care Unit • Urology • Elderly Medicine (including Sub acute Ward Waterside Hospital) • Day Procedure Units • Endoscopy Unit

assess need to screen an admission	• Maternity/ Labour Ward • Gynaecology • Children's Ward/ Children's Day Treatment Unit • A&E Department • Urgent Care and Treatment Unit • X-Ray Department • Physiotherapy Department • Outpatients Department • Acute Medical Unit (AMU) • Medical and Surgical Assessment (MSAU) • Elective Procedure Unit (EPU) • Admission and assessment wards
LOW RISK AREAS **Do not screen admissions into these areas**	• Tyrone & Fermanagh Hospital and Satellite Facilities • Gransha Hospital and Satellite Facilities • Adult Mental Health and Learning Disability Units • Nursing and Residential Homes • Health Centres • Spruce House, Altnagelvin site • Waterside Hospital (with the exception of Sub acute Ward) • Omagh Hospital and Primary Care Complex (OHPCC) (with the exception of the Renal Unit)

8.0 THE CLINICAL RISK ASSESSMENT (CRA)

The following clinical risk assessment (CRA) should be carried out to help target screening of patients who have a greater risk of MRSA colonisation in **High and Medium Risk** areas. **Exclude Low Risk Areas**

All of the following patients will require MRSA screening by charcoal swab (Not PCR swab)

Patients who have a history of MRSA infection or colonisation **N.B.** **Commence Skin Decolonisation as per WHSCT Secondary Care Antimicrobial Therapy Guidelines**	This may be identified by: • Patient/ relative reporting, • Flagged on PAS system, • Flagged on Patient Centre, • GP reported, • Other hospital, • Theatre Management System (TMS) • Microbiology results - available on Lab system and Northern Ireland Electronic Care Record (NIECR). These patients should be screened on admission.

Admitted from a long stay care facility or from any other hospital	This includes any other hospitals This includes inter-hospital transfers. This includes inter-ward transfer to a high risk area. **N.B.** PCR is not required. If an isolation room is not available a risk assessment for placement (including patient risks and receiving room risks) should be completed. Refer to Infection Prevention & Control Risk Assessment Guidelines for the Isolation/ Placement of Patients
Admission to high risk area as per Clinical Location/ Speciality MRSA Categorisation, • **ICU** • **HDU** • **NICU** • **Renal and dialysis** • **Oncology/chemotherapy and Haematology** • **Trauma and orthopaedics** • **Vascular surgery**	Screen all admissions and then weekly.
Pre-Operative patients for high risk planned surgery: • **Orthopaedics** • **Cardiothoracic surgery, Neurosurgery,** • **Vascular surgery including stenting and major ENT surgery**	Screening should be carried out in Outpatients when the patient attends the Pre-Op Assessment Clinic. It is particularly important to allow decolonisation to commence before the patient is admitted to hospital. If surgery is delayed by 12 weeks, the patient should be rescreened.
Patients with a wound/ ulcer or indwelling device	Full screen on all admissions who have an existing wound, ulcer or indwelling device on admission.
Regular hospital attendees	Patients who have been admitted to hospital on 3 or more occasions within 1 year.
All 'Long Stay Patients' - over 30 days	All patients who have been inpatients for over 30 days must have a full screen if they have not been screened for other reasons. This should be repeated every 30 days whilst they remain inpatients.

9.0 PATIENT SCREENING FOR MRSA


Charcoal swab

9.1 Full Screen

A full screen is required for any patient who falls into the above categories.

A screen is taken using a charcoal swab. Positive results are shown within 48-72 hours. Swabs should be moistened with sterile water immediately before use, taking care not to contaminate them, and then placed in charcoal media following screen.

A screen will consist of:

- **Nasal (one charcoal swab both nostrils)**
- **Groin (one charcoal swab for both groins)**
- **Sites of insertion of invasive devices/ foreign bodies, e.g. intravenous catheters(remove dressing)**
- **Broken skin, wounds or ulcers, (individual swab per site)**
- **Catheter Specimen Urine (CSU):** If a patient has a urinary catheter in situ please send a urine sample for MRSA.
- **Sputum sample if the patient has a productive cough.**

9.2 Wound Swabs

The swab should be taken after the wound has been irrigated. Care should be taken not to contaminate the specimen with normal flora from the wound margins. Pre-moisten the swab in sterile water and rotate.

If the wound is showing signs of clinical infection, this could be a deep-seated infection; therefore it is important to sample the wound bed.

9.3 Screening Post Decolonisation Treatment

When a patient has received decolonisation treatment they require three separate sets of follow up screens. The first swab should be taken starting 48 hours post treatment, i.e. day 7 or 12 depending decolonisation treatment duration. The second and third swabs should then be sent at weekly intervals.

Before taking screens, clinical staff must check the previous screen result and if positive, do not send the next screen – commence further treatment. Please see: Patients Who Remain Positive Following Treatment.

9.4 How to Screen

- Inform patient and gain verbal consent.
- Decontaminate hands using 7 Step hand hygiene Technique
- Apply aprons and gloves.
- Tear top of sachet or remove the top off the ampoule of sterile water
- Remove swab from sterile pack by handle end.
- Moisten cotton end of swab with sterile water.
- Hold the swab between index finger and thumb and rotate the swab whilst wiping moistened cotton end on the inside of each nostril for approximately 5 seconds. This involves inserting the swab into the back of the nasal nares as far as the patient will tolerate and not at the tip of the nose.
- Moisten another swab; with a firm swipe, wipe this swab in both groins making sure to rub this area to disturb the normal flora.
- Place swabs into medium and label before insertion into microbiology lab form bag. Ensure the request form is labelled correctly with the patient's details including Health and Care number and sign the form.
- Remove apron and gloves, and carry out hand hygiene using 7 step technique.

NB: If it is also necessary to screen other sites due to indwelling devices (as mentioned above) a clean sterile swab moistened in the same way must be used for each site. The technique for these swabs must be in a rotating motion.

10.0 POLYMERASE CHAIN REACTION (PCR) SCREENING – ALTNAGELVIN HOSPITAL ONLY

As advised by the Microbiology Speciality Forum, the standard approach to MRSA screening across Northern Ireland is by culture.

MRSA PCR screening can aid in the risk assessment of a patient, but it does have limitations. A PCR test can produce false negative results; that is some samples negative by PCR will be culture positive. The responsibility for any actions taken on the basis of the PCR result lies with the requestor.

MRSA PCR service is available during the following times only:

- **Monday – Friday, 09:00 to 17:00**
- **Saturday, Sunday & Bank Holidays, 09:00 to 15:00**

For requests outside these hours the ward must contact the Consultant Microbiologist for authorisation (via Switchboard).

PCR may be requested for patients in the following areas:

1. Initial admission to ICU or HDU
2. Transfers to NICU from other hospitals
3. Emergency Orthopaedic/ Trauma admissions (not elective)
4. On request of the Consultant Microbiologist and/or IPCN (PCR should not be requested to determine positive carriage of MRSA for management of bed flow)

The following areas may also request MRSA PCR tests for **trauma patients only**:

1. Trauma Orthopaedic Unit (TOU)
2. Elective Orthopaedic Unit (EOU)
3. Elective Procedure Unit (EPU)
4. Fracture Clinic

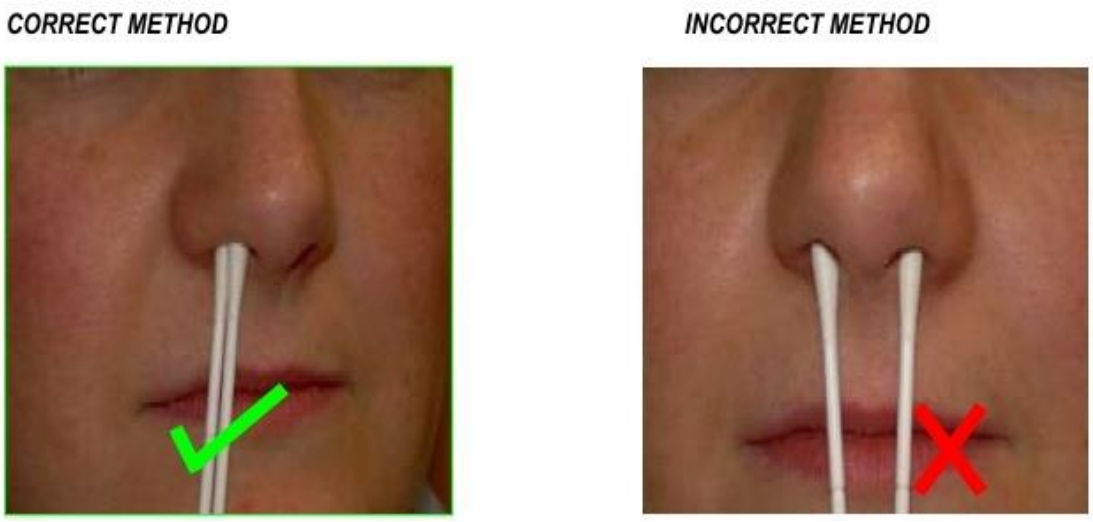
For requests from areas not on this list, contact the Consultant Microbiologist for authorisation.

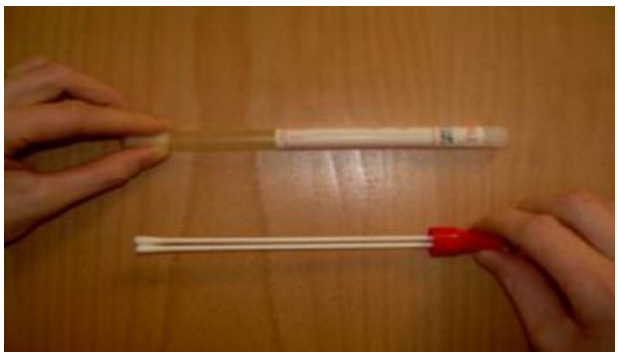
It is the responsibility of the requesting ward/ unit to clearly identify on the request form that the request falls into the categories listed above. If it is not clear, the swab will be tested by conventional culture method only. The Microbiology Laboratory must be notified by telephone that the specimen is being sent. All other admission screens will be carried out by normal culture techniques.

10.1 Procedure for Taking Nasal PCR Screen

Swab each nostril with the double swab; do not use one swab for the left nostril and one for the right nostril. It is important that staff use the proper technique when taking a nasal swab. This involves inserting the swab into the back of the nasal nares as far as the patient will tolerate and not at the tip of the nose. ***For babies in NICU place both swabs separately into each nostril.***

Please also refer to **How to Screen** applying method to both swabs.





Special swabs are required for PCR screening. The Copan double swab for PCR is a red swab and is available from the Microbiology Laboratory, Altnagelvin Hospital, ext. 214017.

10.2 PCR Results

It is important to note that if a patient is found to be PCR positive or negative, a full screen is still required. Staff should then ensure that the Lab system is checked for the full swab culture result and sensitivities 48 hours after sample is taken.

This is the responsibility of the staff nurse caring for the patient. This is to ensure the patient is receiving the appropriate treatment. If a patient is PCR positive but culture negative the patient should still complete 5 days decolonisation treatment. If the patient is PCR negative but culture positive the patient should commence decolonisation treatment. If any queries the IPCT or the Consultant Microbiologist should be contacted.

11.0 CONTACT SCREENING

Applies to High and Medium Risk areas only

- When a newly diagnosed MRSA positive patient is identified in a multi bedded bay, the patient should be isolated as soon as possible with Contact Precautions applied. The bay should have a terminal clean with Actichlor Plus 1,000 ppm (1 tablet per litre of water) or Difficil-S and then should remain closed to admissions with Contact precautions.

- Once the MRSA positive patient has been isolated, the patients who have been in contact should be screened. If possible contact patients should not be moved to other wards until screens are found to be negative. If a contact patient is transferred to another ward prior to screen results being available the receiving ward should be made aware and the patient should be isolated. It will be the responsibility of the receiving ward then to follow up screen results

- Where clinical pressures are such that the area must continue to admit patients it is important that it is discussed with the Infection Prevention and Control Team (IPCT) or Consultant Microbiologist. The Team will help clinical staff risk assess and avoid admission and exposure of vulnerable patients. Clinical staff

must provide detailed information about the patients concerned to allow the IPCT to provide accurate and safe advice

- If staff are unable to isolate the patient who has been screened for MRSA or is MRSA positive, Bed Management (AAH) or Patient Flow Co-ordinator (in the SWAH) should be contacted to look for alternative isolation rooms. If this is not possible contact the IPCT to help risk assess isolation options.

- Until the patient is isolated they should remain in the bay with Contact Precautions applied. Where possible, any equipment in the room should be single use and any multi-use equipment should be cleaned using Actichlor Plus 1,000 ppm (1 tablet per litre of water)/ Difficil-S.

- In **ICU/ HDU** MRSA contact patients should commence skin decolonisation treatment Skin decolonisation, as per WHSCT Secondary Care Antimicrobial Therapy Guidelines, while in contact with the index patient. Swab the contacts as soon as the index case is isolated.

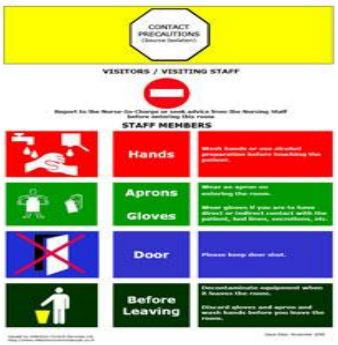
- **It is the responsibility of the patient's consultant/ GP to inform the patient of results. (For patients screened in hospital but discharged before the result is available it remains the consultant's responsibility to inform the patient and GP).**

12.0 PATIENT MANAGEMENT

12.1 Management of Newly Diagnosed MRSA Positive Patient

If a patient is newly diagnosed MRSA positive from any site, decolonisation treatment must be commenced As per WHSCT Secondary Care Antimicrobial Therapy Guidelines and CONTACT PRECAUTIONS must be applied.

- **Isolate Patient:** A Contact Precautions poster must be placed on the door. Patients should remain in isolation until they have received decolonisation treatment and had three consecutive negative screen results. When isolating a patient the door must remain closed to minimise the risk of transmission.



- **Personal Protective Equipment (PPE):** White plastic aprons and non-sterile gloves must be applied when entering the isolation room and removed prior to

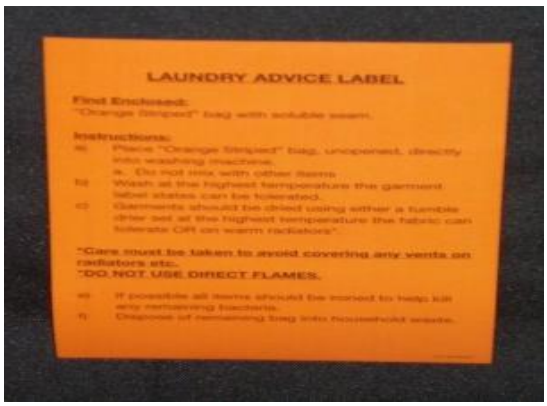
leaving. Gloves must be changed between dirty and clean tasks while in the patient area. All PPE should be disposed of in clinical waste bags.

- **Hand Hygiene:** 7 step hand hygiene technique should be carried out in conjunction with 5 Moments of Hand hygiene from the World Health Organisation (WHO). Soap and water or alcohol hand sanitiser can be used. Alcohol hand sanitiser is not appropriate if hands are physically contaminated or the patient has diarrhoeal/ vomiting symptoms.

- **Cleaning and Decontamination:** Isolation areas must have daily cleans carried out by Support Services using Actichlor Plus solution 1,000 ppm or Difficil-S. When the patient is discharged from the area a terminal clean using Actichlor Plus solution 1,000 ppm or Difficil-S must also be carried out. When a clean is complete it must be recorded on the Enhanced Cleaning Schedule by domestic services and checked by the nurse in charge. Disposable bed screens should be changed. Pillows and the mattress should be checked for damage.

- **Patient Equipment:** Any equipment that is not single use must be cleaned with Actichlor Plus solution 1,000 ppm or Difficil-S prior to use with other patients.

- **Linen/ Laundry:** Any bed linen or laundry to be removed from the patient area must be placed in a clear soluble bag with a pink strip (the neck of the bag should be tied using the pink strip) for NHS laundry and then into a red linen bag. Laundry that is to be sent home should be placed in a patient property bag and given to the patient's family/carer along with the orange information leaflet.



- **Information Leaflet:** Communication with the patient is very important so they have an understanding of MRSA and why staff must adhere to the precautions stated. Patients' anxiety is likely to be reduced by effective communication. It is the responsibility of the patient's medical team (if in hospital setting) or GP (if in community setting) to inform them of the result and give appropriate information. Patients must be provided with a MRSA leaflet and given an opportunity to ask any questions. When it is not appropriate to provide a patient with a MRSA leaflet the patient's next of kin should receive the leaflet.

- **Patient Movement:** Movement of MRSA patients should be minimised to reduce the risk of transmission. This should not compromise other aspects of care, for example clinical investigation, rehabilitation, etc.

12.2 Management in Outpatient Department

Patients/ clients with MRSA colonisation should be seen at the end of a caseload or clinic session spending the minimum time in the department.

Patients are identified by a * on PAS and clinic lists and should be booked last in the clinic. If they have been inadvertently booked earlier, the clinic list should be checked in advance and the patient contacted the evening before to delay their arrival.

Before the patient enters the clinic room any unnecessary equipment should be removed which will then make it easier to carry out a clean of the room post appointment.

Examination/ procedure couches must be cleaned between each patient and clean paper roll applied.

It is not necessary to decontaminate the general environment unless the patient has undergone a procedure requiring the removal of their clothing, which increases the likelihood of environmental contamination.

Consideration should be given to the length of time spent in the area if the patient is known to be colonised and is a high shedder of skin scales, a terminal clean will be required.

12.3 Day Case Unit/ Endoscopy Setting

Patients/ clients with MRSA colonisation should be placed in a single room if available.

To allow for thorough cleaning after the case, it is preferable, to put the patient at the end of the list.

The patient can be recovered in Recovery with Contact precautions.

12.4 Theatres

MRSA patients requiring surgery will need decolonisation treatment, and if relevant to the procedure, appropriate prophylactic/systemic antimicrobial treatment. Please refer to WHSCT Secondary Care Antimicrobial Therapy Guidelines or contact Consultant Microbiologist if there are any queries regarding systemic treatment.

There must be communication between the Emergency Department and Clinical Wards with the Operating Department regarding the infection status of all emergency and planned admissions to theatre.

Where possible if a clinical area informs Theatres in advance, this will allow Theatre staff to prepare the area appropriately. When preparing the room the following should be considered:

- Removing any unnecessary equipment.
- Plan equipment needs according to the case to minimise movement of staff in and out of theatre.

In theatre environments there must be sufficient time available to ensure appropriate decontamination between each surgical case. This is to minimise the risk of transmission from one patient to another. This clean should include the following actions:

- A terminal clean must be complete using Actichlor solution (1000ppm)/ Difficil-S.
- Actichlor 10,000ppm/ Difficil-S should be used on blood and/or body fluid spillages and other potentially contaminated areas.

To allow for thorough cleaning of surfaces it is preferable to put patient at the end of the list. However, this is only to facilitate cleaning, and if it is more important clinically that the patient is operated on earlier in the list then clinical need takes priority, but enough time must be allowed prior to the next patient for cleaning.

13.0 VISITORS

In order to maintain patient confidentiality it is only necessary to inform a close relative if the patient is unable to communicate same. Visitors are **not** required to wear PPE when visiting if they are not involved with any direct patient care. All visitors should be advised regarding hand hygiene before and after visiting. The hand hygiene leaflet may assist with this. Visitors should also be advised not to sit on the patient's bed.

If a visitor is immuno-compromised or has any large open wounds they should be advised not to visit.

14.0 TREATMENT

14.1 Treatment of Mupirocin Sensitive Colonised Patient

As per WHSCT Secondary Care Antimicrobial Therapy Guidelines.

14.2 Patients who Remain Positive following Treatment

If any of the post treatment screens are positive further treatment should be commenced.

If the patient remains positive following two treatments per hospital admission, the patient is considered to be "chronically colonised" and must be isolated with Contact precautions. Contact the Consultant Microbiologist for advice regarding further management and IPCT for management of transmission.

14.3 Antibiotic Treatment for Patients Infected with MRSA

As per WHSCT Secondary Care Antimicrobial Therapy Guidelines.

14.4 Positive Wound Swabs

Treatment of a wound will depend on whether the wound is infected or colonised with MRSA. If a wound swab is positive for MRSA liaise with the Tissue Viability Nurse (TVN) for further advice. A full body screen should be taken, and

decolonisation treatment commenced. The primary aim is to promote healing and prevent infection.

Skin wounds that demonstrate signs of infection and are MRSA positive may require systemic treatment **as per WHSCT Secondary Care Antimicrobial Therapy Guidelines**.

Advice should be sought from the Consultant Microbiologist.

14.5 Waterside Hospital

1. Screen all admissions to Sub-Acute Ward for MRSA.

2. If the patient tests positive in a multi-bedded room and classed as a low risk for transmission (see table below), the room can remain open to admissions. In order to minimise the risks to the other patients in the room, the following actions need to be taken:

   a) Full screen of all contact patients.
   b) Commence **Skin Decolonisation as per WHSCT Secondary Care Antimicrobial Therapy Guidelines** for all contact patients and if results are negative discontinue treatment.
   c) Contact precautions must be in place

3. If a patient tests positive in a multi-bedded room and is classed as high risk for transmission (see table below), they must be isolated. The contacts identified must be screened and the room must be closed to admission until results are negative. Contact precautions must be in place.

Criteria for MRSA risk assessment to be followed:	
Low risk	No skin conditions, wounds, broken skin or indwelling devices.
Medium to High risk	Skin conditions, wounds, broken skin, indwelling devices, immunosuppressed due to medical condition or therapy.
IPCN can assist with risk assessment process.	

15.0 DISCHARGE OF MRSA POSITIVE PATIENTS

When a patient is medically fit to be discharged MRSA status should not postpone this. Colonisation with MRSA is not a contraindication to the transfer of a patient to a nursing, convalescent home or other hospital.

It is important that medical staff detail treatment requirements in the discharge letter to the patient's GP or doctor of the receiving hospital/ care setting.

If treatment is to be administered by the District Nursing Team the referral from nursing staff should detail treatment required.

Patients discharged to their own home will not normally require special treatment after discharge from hospital.

Patients should be advised that if they are re-admitted to any hospital, they should inform the admitting staff that they have previously been identified as MRSA positive.

If staff are contacted regarding a positive MRSA result on a patient, the consultant caring for the patient is responsible for ensuring they are informed about the positive result either directly or by request to the GP if already discharged.

16.0 TRANSFERRING PATIENTS WHO ARE MRSA POSITIVE

16.1 Transfer

Transfer of MRSA patients to other wards or departments should be minimised to reduce the risk of cross infection. The diagnosis, however, should not compromise the patient's care, clinical investigation, high dependency nursing or rehabilitation.

The receiving ward or department should be informed of the patient's MRSA status, allowing them to make the appropriate arrangements.

When transferring a patient, staff should minimise the need to handle any invasive devices and wounds during transfer. This can be achieved by the carer/ nurse ensuring the following:

- Urinary Catheters are emptied prior to transport
- Wound dressings are checked and padded as appropriate to absorb exudate
- Expectorating patients are provided with clean tissues

16.2 Advice for Portering Staff

Porters collecting patients should decontaminate hands before entering the room. Disposable gloves and aprons should only be worn when required to have direct contact with the patient, for instance helping with moving and handling. PPE is not required when transporting the patient.

After the patient has returned to the ward the trolley or chair must be cleaned down with Actichlor Plus 1,000 ppm/ Difficil-S. This should be provided by the clinical area. PPE should be worn when cleaning any equipment. Hand hygiene using the 7 step technique should be carried out after dealing with the patient, and again following cleaning the trolley or chair.

Confidentiality must be maintained at all times.

16.3 Transport Via Ambulance

Ambulance staff should be notified of MRSA status of the patient by the clinical team responsible. MRSA patients can travel with other patients in an ambulance.

MRSA patients who are heavy skin shedders, who have an open weeping wound or are openly expectorating, should travel alone. Ambulance staff should be asked to adhere to contact precautions to minimise the risk of cross infection. While in the clinical environment, they should be advised to be bare below the elbow to allow hand hygiene as per the 7 step hand hygiene technique.

If further precautions are required it is the responsibility of the clinical staff to inform the Ambulance Service.

17.0 CARE IN THE COMMUNITY

Residents/ clients in the community who are MRSA positive should not be restricted from having contact with friends, children or the elderly. This applies regardless of whether the client lives in their own home or a community healthcare facility. In their own home MRSA carriers are of low risk to healthy family, friends, children, and staff providing that hand washing and basic hygiene measures are followed.

Carers and community nursing staff should apply standard precautions with all residents/ clients.

Residents of nursing, rehabilitation wards or residential homes should be placed in a single room with en suite facilities especially if they have chronic open wounds or invasive devices, e.g. urinary catheters. If this is not possible, and the room has to be shared, then a risk assessment should be made to reduce the risk for the resident sharing the room. They have none of the following:

- Broken skin areas, e.g. pressure sores, wounds or leg ulcers
- Skin conditions, e.g. psoriasis and eczema
- Indwelling devices, e.g. urinary catheters or P.E.G tubes in place.

The door to their room should remain closed whenever possible (especially during linen changes and any clinical care) isolation for daily living is not necessary. MRSA positive residents/ clients should have no restrictions placed on their movement within communal areas.

If a resident is admitted to hospital and is known to be infected or colonised, the nurse/ officer-in-charge should ensure that this information is given to the ward staff prior to admission, if possible, or written on the transfer letter accompanying the resident.

18.0 DECEASED MRSA PATIENTS

18.1 Precautions

Contact Precautions should be applied during last offices. There is no specific risk from the body to relatives, nursing staff or undertakers. Cadaver bags are only necessary if there is the potential for body fluid leakage during transportation. As with any cadaver any exudating wounds should be covered with an impermeable dressing.

18.2 Death Certification

In the event that a HCAI is documented as a primary cause of death, it is strongly recommended that the patient's Consultant review the clinical diagnosis with the Consultant Microbiologist or another colleague before confirming the cause of death.

HCAI Associated Deaths in WHSCT Hospital Wards

Where an **MRSA/ MSSA bacteraemia or *C. difficile* infection** related death has occurred in a WHSCT hospital ward, **the certifying doctor must ensure that a copy of the death certificate is filed to the patient's chart. A copy must also be forwarded to the Medical Director's Office within 24 hours.**

Medical Director's Office

On receipt of notification, the Medical Director's Office will contact the Consultant responsible to discuss and confirm the cause of death.

The Medical Director's Office will convene a HCAI Associated Death Review Group. Refer to the Protocol for Monitoring Deaths Associated with C. difficile, MRSA and MSSA for further details

19.0 STAFF SCREENING FOR MRSA

19.1 Staff Screening for MRSA is Not Routinely Performed within the WHSCT

Staff screening for MRSA will be initially co-ordinated by the IPCT. This will be requested by the Consultant Microbiologist during outbreaks. The ward manager will be asked to document a list of all staff to be screened.

Prior to carrying out screening on a staff member it is important that staff report any skin lesions or breaks to skin. The IPCT will refer these staff to the OHD. Staff with signs of a skin condition may also require a dermatological review.

Prior to any screens being carried out consent must be obtained from the staff member.

A full screen will be required. A full screen consists of:

- Nasal - anterior nares (1 swab both nostrils)
- Groin swab (1 swab both groins)
- Any areas of abnormal or broken skin

Each member of staff must take their screen as they come on duty prior to any patient contact.

Once all staff have been screened the ward manager will send a copy of the list to the IPCT and OHD.

Staff found to be positive for MRSA carriage will be commenced on MRSA decolonisation treatment as per WHSCT Secondary Care Antimicrobial Therapy Guidelines.

The IPCT will inform the Occupational Health Team of any positive screens and staff will attend OHD to collect post treatment swabs, lab forms and to collect a letter to take to Trust pharmacy for decolonisation treatment.

OH will follow up on post treatment screens and advise staff regarding work restrictions.

19.2 Guidance for Staff on Work Restriction

Work restrictions will be based on the individual staff member's risk of transmission to patients.

Work restrictions will be assessed on an individual basis and may involve restrictions with patient contact.

In principle only staff members with colonised or infected skin or hand lesions or staff working in high risk areas should be off work while receiving decolonisation treatment.

It is the responsibility of the staff member to inform their line manager regarding their work restrictions. The nurse manager will be responsible for reallocation of duties.

19.3 Re-Screening Guidance for Staff

This will be managed by OHD

- Staff will be advised to allow 48 hours to lapse after completing treatment before re-sampling the areas listed below. Send **three full sets** 7 days apart as detailed below:

  - Nasal - anterior nares (1 swab both nostrils)
  - Groin swab (1 swab both groins)
  - Any areas of abnormal or broken skin
  - Further sites may require screening from staff if these were found to be positive on initial screens

- Staff will be deemed MRSA negative when **three** negative sets of swabs have been obtained.
- It will take approximately 3-5 days to obtain results from the Laboratory.

Few individuals are found to have chronic carriage. These individuals are likely to have underlying skin conditions. This will be managed by OHD as they may require special management with further referral, e.g. ear, nose and throat speciality or dermatology.

20.0 IMPLEMENTATION

20.1 Dissemination

This guideline applies to all staff.

The guideline shall be available for staff to access on the Trust Intranet.

Staff shall be alerted via Trust Communication in relation to the availability of the guideline on the Trust Intranet.

20.2 Exceptions

There are no exceptions.

21.0 MONITORING

Compliance with this policy shall be monitored by the Ward/ Department Manager/ Team Leader/ Lead Nurse/ Head of Service. The IPCT may also independently monitor compliance.

22.0 REFERENCES

Coia J.E. et al, Guidelines for the Control and prevention of methicillin-resistant Staphylococcus aureus (MRSA) in Healthcare facilities. *J Hosp Infection* 2006 635, S1-S44.

MRSA Patient Information Leaflet, PHA website: http://www.publichealth.hscni.net/publications/hand-hygiene-information-patients-and-visitors-including-accessible-formats

Loveday H.P. et al, National Evidence-Based Guidelines for Preventing Healthcare-Associated Infections in NHS Hospitals in England. *J Hosp Infection 2014*; 86S1S1–S70.
Accessed via https://improvement.nhs.uk/resources/epic3-guidelines-preventing-healthcare-associated-infections/ [last accessed 08 November 2018].

23.0 CONSULTATION PROCESS

Infection Prevention and Control Team
Medical Microbiologists
Medical Director
Occupational Health Service
Staff Side Consultation Group
Medical Directorate Senior Management Team
Chief Executive HCAI Accountability Forum
Corporate Management Team
Trust Board

24.0 EQUALITY STATEMENT

In line with duties under the equality legislation (Section 75 of the Northern Ireland Act 1988), Targeting Social Need Initiative, Disability Discrimination and the Human Rights Act 1998, an initial screening exercise to ascertain if this policy should be

subject to a full impact assessment has been carried out. The outcome of the equality screening for this policy is: **PENDING**

Major Impact ☐
Minor Impact ☐
No Impact ☐

25.0 APPENDICES

Appendices to this policy are as follows:

Appendix 1: MRSA Patient Information Leaflet
Appendix 2: Hand Hygiene Patient Information Leaflet
Appendix 3: MRSA Care Pathway

26.0 SIGNATORIES

Signed for and on behalf of the Western Health & Social Care Trust:

Nyree McKenny — 9/4/19.

Mrs Nyree McKenny
Infection Prevention & Control Nurse

Date

Wendy Cross — 09/04/19

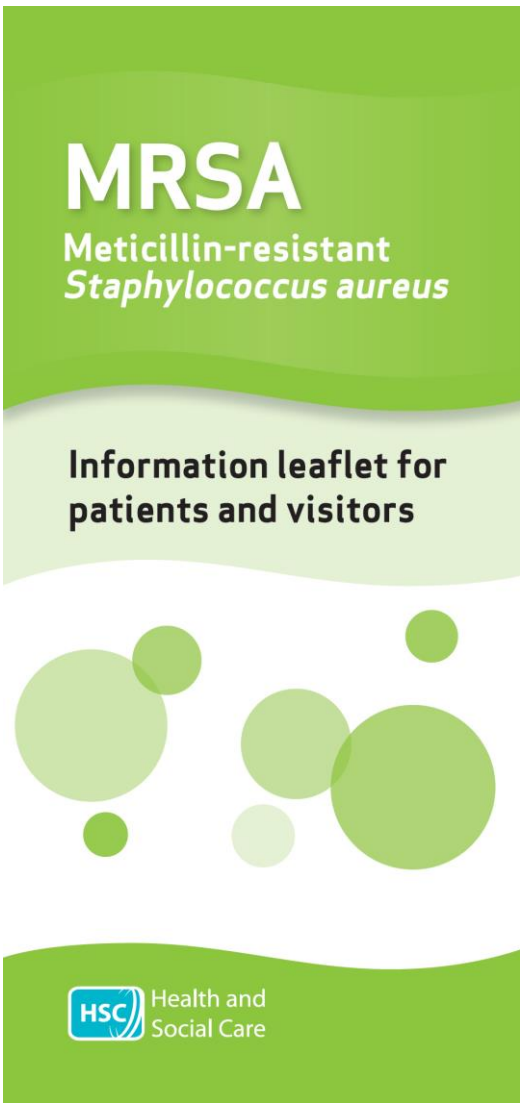
Mrs Wendy Cross
Head of Infection Prevention & Control

Date

Appendix 1

MRSA PATIENT INFORMATION LEAFLET

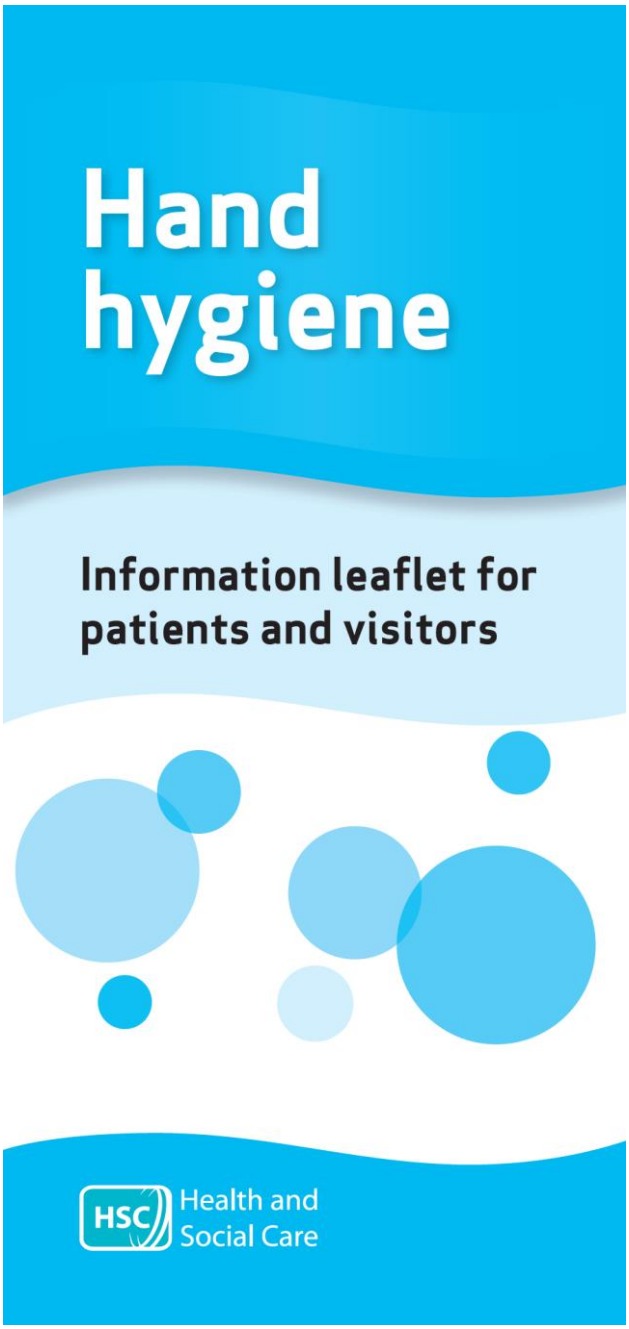
The MRSA patient information leaflet can be downloaded by clicking on the link which is located in the Infection Prevention & Control Guidelines section of the Trust intranet, or by contacting the Infection Prevention & Control Nurse at Altnagelvin Hospital or the South West Acute Hospital.



Appendix 2

HAND HYGIENE PATIENT INFORMATION LEAFLET

The Hand Hygiene patient information leaflet can be downloaded by clicking on the link which is located in the Infection Prevention & Control Guidelines section of the Trust intranet, or by contacting the Infection Prevention & Control Nurse at Altnagelvin Hospital or the South West Acute Hospital.



Western Health and Social Care Trust

Appendix 3

MRSA ADULT
INTEGRATED CARE PATHWAY 2018

Inclusion Criteria

This Integrated Care Pathway (ICP) is for use with known and newly diagnosed MRSA positive adult patients.

Exclusion Criteria

This ICP is not for use with patients 16 years or younger. Contact the Infection Prevention and Control Team for risk assessment.

This ICP is intended as a guide to care only and does not replace clinical judgement.

PLEASE ENSURE IF PATIENT IS TRANSFERRED TO ANOTHER WARD/ CLINICAL AREA THE CARE PATHWAY IS TRANSFERRED WITH THEM AND DOCUMENTATION IS CONTINUED.

Integrated Care Pathway Document Information
Date: November 2015
Reviewed/ Amended: January 2018, April 2019
Next Review: April 2023
Adapted from United Lincolnshire Hospitals NHS Trust Care Pathway Partnership

Addressograph
Patient Name
H&C No.
Hospital No.
Ward
Hospital Site

Signature Record

All members of staff who are using this Integrated Care Pathway should use **black ink** and complete this section. You can then use initials when recording care.

Print Name	Job Title	Bleep/Ext	Signature	Initials	Date

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

	Summary of MRSA Status and Actions	Initials	Date	Time
1	The initial date the patient was identified as being colonised was …….. Site of colonisation……. Was the patient diagnosed as having an MRSA infection? Yes ☐ No ☐ Site of infection …….			
2	All staff are aware of patient's status and are advised to follow Trust MRSA policy? Yes ☐ No ☐			
3	Does the patient have resistance to any of the treatment, check lab for sensitivities and resistance? Yes ☐ No ☐ Comments……			
4	What time did the Laboratory inform ward staff of the positive result?			
5	What time did the Infection Prevention and Control Team inform ward staff of positive result? (new positive result only)			
6	When was the patient isolated/cohorted with appropriate infection prevention and control precautions as per Trust policy?			

	Screening	Date	Time	Initials
7	A full MRSA screen (Nasal and Groin swabs) has been taken (with consent from patient), documented as per Trust policy and sent to Microbiology Laboratory.			

Initial Screening and Results					
	Site of Swab/ Sample	**Date Swab/ Sample Taken**	**Result**	**Date of Result**	**Initial**
8	Nasal				
9	Groin				
10	Wound……...				
11	IV site…….				
12	Other……..				

	Communication	Yes Initial	No Initial	Date	Time
13	The patient is informed of result and given information to explain MRSA, e.g. MRSA leaflet.				
14	The patient is informed of the isolation measures to be undertaken and the rationale and agrees with same. If answer is no, record in the document variance sheet and liaise with the Infection Prevention and Control Nurse.				
15	Does the patient have any questions? If yes, specify in patient's own words in the document variance sheet				
16	Isolation precautions as per Trust policy are implemented. Contact Precautions signage on door. If answer is no, record in the document variance sheet and liaise with the Infection Prevention and Control Nurse.				
17	Domestic Services staff are informed to commence daily enhanced cleans.				
18	The medical team responsible for care decisions are informed of the patient's positive MRSA status and appropriate treatment commenced as per WHSCT Secondary Care Antimicrobial Guidelines. Consultant Microbiologist's advice to be sought, if required.				

	Treatment/ Decolonisation of Positive Patients	Yes Initial	No Initial	Date	Time
29	Decolonisation treatment to be given as per WHSCT Secondary Care Antimicrobial Guidelines.				
20	Wounds contact Tissue Viability Nurse or Infection Prevention and Control Team.				
21	Screens- 1st screen 48hrs post treatment then weekly.				

Please remember

- Re-emergence of resistant strains is common. These patients should always be considered as MRSA positive.
- If surgery is required systemic prophylaxis may be necessary (contact Consultant Microbiologist).

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

Treatment of an adult patient **colonised** with MRSA
(**Colonised** - Organism is present but not causing symptoms of infection)

Management: 5 Day Topical Treatment Plan for Patients SENSITIVE to TREATMENT							
		1	**2**	**3**	**4**	**5**
Nasal	As per WHSCT Secondary Care Antimicrobial Guidelines. Apply to nasal passages 3 times a day for 5 days The patient should be able to taste treatment at the back of their throat after application					
Skin decolonisation Daily bath/ shower	As per WHSCT Secondary Care Antimicrobial Guidelines.					
Shampoo	Bathe and shampoo hair daily for 5 days. The skin and hair should be moistened and solution applied to all areas especially known carriage sites such as axilla, groin and perineal area Allow 15 seconds contact time. (Please note pump dispensers dispense 5mls) Rinse off in bath or shower Alternative as per WHSCT Secondary Care Antimicrobial Guidelines.					
Wound	Advice should be sought from the Tissue Viability Nurse, Consultant Microbiologist or Infection Prevention and Control Team. Wounds should be kept completely covered until MRSA negative or wound has healed.					
Is this the 1st ☐ or 2nd ☐ decolonisation treatment?						
Document Variance Please sign and date the reason and alternative action taken						

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

Management: <u>10 Day</u> Topical Treatment Plan for Patients <u>RESISTANT</u> to TREATMENT											
		1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Nasal	As per WHSCT Secondary Care Antimicrobial Guidelines. Apply to nasal passages four times daily for 10 days. The patient should be able to taste treatment at the back of their throat after application Caution: contains chlorhexidine Contra-indicated in peanut and soya allergy										
Skin decolonisation Daily bath/ shower	Chlorhexidine gluconate 4% Bathe and shampoo hair daily for 10 days. The skin and hair should be moistened and solution applied to all areas especially known carriage sites such as axilla, groin and perineal area Allow 15 seconds contact time.(Please note pump dispensers dispense 5mls) Rinse off in bath or shower Alternative as per WHSCT Secondary Care Antimicrobial Guidelines.										
Shampoo											
Wound	Advice should be sought from the Tissue Viability Nurse, Consultant Microbiologist or Infection Prevention and Control Team. Wounds should be kept completely covered until MRSA negative or wound has healed.										

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

Screening Schedule **Weekly screening**	**Date Taken**	**Site**	**Results**
48 hours after treatment **Day 7 (sensitive)** **Day 12 (resistant)**		Nasal	
		Groin	
1 Week after 1st screen **Day 14(sensitive)** **Day 19 (resistant)**		Nasal	
		Groin	
1 Week after 2nd screen **Day 21(sensitive)** **Day 26 (resistant)**		Nasal	
		Groin	

- **Patient is only clear when all 3 sets of screens are negative**
- **If any of 3 screens positive, start 2nd treatment cycle**
- **If positive after 2nd treatment contact Infection Prevention and Control Team**

Document Variance

Please sign and date the reason and alternative action taken

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

Systemic Treatment of an adult patient **infected** with MRSA
(**Infected** - organism is present and has resulted in signs and symptoms of infection)

Management	Initials	Date	Time
Patient will need systemic treatment, Please refer to WHSCT Secondary Care Antimicrobial Guidelines If necessary discuss treatment regime with Consultant Microbiologist. Consultant Microbiologist contacted by ……and appropriate treatment discussed.			
In conjunction with systemic treatment patient has been commenced on topical treatment. Please refer to WHSCT Secondary Care Antimicrobial Guidelines			
Document Variance Please date and sign the reason and alternative action taken			

Western Health and Social Care Trust

Addressograph
Patient Name
H&C No.
Hospital No.
Ward

Patient is Integrated Back into the Clinical Area	**Yes Initials**	**No Initials**	**Date**	**Time**
The patient has had 3 consecutive negative screens				
The negative results and changes to care are explained to the patient				
Does the patient have any questions? If yes, specify in patient's own words on the document variance sheet				
Contact precautions can be discontinued				
If patient is to be moved, shower and change clothes. Ensure bed, locker and other items to be moved have been terminally cleaned prior to moving.				
Inform Domestic Services of terminal clean of isolation room				

Patient is Discharged Back into Primary Care	**Yes Initials**	**No Initials**	**Date**	**Time**
Has receiving area been informed of MRSA status prior to discharge of patient?				
Has MRSA status been indicated on discharge/ transfer letter?				
If patient is being discharged to own home do they understand there are no restrictions to their home life?				
Does the patient still have a MRSA leaflet?				