**SOP Objective**

To provide Health Care Workers (HCWs) with details of the precautions necessary to minimise the risk of MRSA cross-infection.

This SOP applies to all staff employed by NHS Greater Glasgow & Clyde and locum staff on fixed term contracts and volunteer staff.

**KEY CHANGES FROM THE PREVIOUS VERSION OF THIS**

- **Update to SAS Guidance for patient transport**
- **Update to wording Patient Placement**
- **Update to wording for Linen management**
- **Update to wording for PPE**

**Important Note:** The version of this policy found on the Infection Prevention & Control (eIPC Manual) on the intranet page is the only version that is controlled. Any other versions either printed or embedded into other documents or web pages should be viewed as uncontrolled and as such may not necessarily contain the latest updates, amendments, or linkages to other documents.

**Document Control Summary**

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| Developed by | Infection Control Policy Sub-Group |
| Related Documents | National Infection Prevention and Control Manual<br>NHSGGC Hand Hygiene Guidance<br>NHSGGC SOP Terminal Clean of Ward/Isolation Room<br>NHSGGC SOP Twice Daily Clean of Isolation Rooms |
| Distribution/ Availability | NHSGGC Infection Prevention and Control web page<br>www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control |
| Lead Manager | Director Infection Prevention and Control |
| Responsible Director | Executive Director of Nursing |

**Contents**

## MRSA Aide Memoire

**Consult SOP and Isolate in a single room with**:

- ✓ ensuite / own commode
- ✓ door closed
- ✓ IPC yellow sign on door
- ✓ dedicated equipment
- ✓ Care Checklist completed daily

**Patient Assessed Daily**

Has patient had two full, consecutive negative MRSA screens, taken 72 hours apart, following decolonisation therapy?

NB. No screening to take place while patient on treatment and should be taken at least 48 hours following completion of decolonisation therapy.

**NO**

**YES**

- ✓ Stop isolation
- ✓ undertake terminal clean of room

**SOP - Guidelines for patients in isolation:**

Hand Hygiene: Liquid Soap and Water or alcohol based hand rub

PPE: Yellow apron when in contact with a patients environment/equipment. Disposable gloves must be worn when exposure to blood and body fluids and non intact skin is anticipated or likely.

Patient Environment: Twice daily chlorine clean

Patient Equipment: Chlorine clean immediately after each use and twice daily

Linen: Treat as infectious

Waste: Dispose of as Clinical / Healthcare waste

Incubation Period: variable

Period of Communicability: As long as MRSA can be isolated from the patient's specimens and until two consecutive negative screens have been obtained

Notifiable disease: No

Transmission route: direct, indirect contact

## 1. Responsibilities

**Healthcare Workers (HCWs) must:**

- Follow this SOP.
- Inform a member of the Infection Prevention and Control Team (IPCT) if this SOP cannot be followed.
- Provide information on MRSA to patients and relatives as appropriate and document in patient records.
- Ensure that the clinical team with direct responsibility for the patient inform those who need to know of the patient's MRSA status, e.g other wards, departments, General Practitioners, District Nurses.
- Ensure that nursing staff commence an MRSA care checklist, update daily and complete the risk assessment for any aspect of transmission based precautions (TBP) for MRSA that cannot be implemented.
- Undertake MRSA Clinical Risk Assessment (CRA) on admission/transfer of each patient, where appropriate.

**Managers/Senior Charge Nurse must:**

- Ensure that staff are aware of the contents of this SOP.
- Support HCWs and IPCTs in implementing this SOP.

**Infection Prevention and Control Teams (IPCTs) must**:

- Keep this SOP up-to-date.
- Undertake MRSA CRA surveillance.
- Provide education opportunities on this SOP.
- Provide the NHSGGC clinical governance structure with routine surveillance data.
- Advise and support HCWs to undertake a Risk Assessment if unable to follow this SOP.

**Occupational Health Service (OHS) must:**

- Support and coordinate staff screening during an outbreak/investigation.

## 2. General Information on patients with MRSA

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| ***Communicable Disease/ Alert Organism*** | Methicillin Resistant *Staphylococcus aureus* is a Gram-positive bacterium, resistant to a variety of antibiotics. It is particularly challenging because it can survive well (up to 6 months) in dry conditions. |
| ***Clinical Condition(s)*** | Patients may be colonised without any signs of infection.<br>MRSA can cause a wide range of infections, e.g. wound infections, soft tissue infections, insertion site infections, bloodstream infections, endocarditis and osteomyelitis. |
| ***Mode of Spread*** | Contact (direct and indirect). MRSA can colonise the superficial layers of the skin of the hands and thereafter be transferred from patient to patient. MRSA can be disseminated in the environment, often on skin scales, particularly during procedures such as bed-making and during wound dressings.<br>MRSA positive patients who have large burns, widespread exfoliating conditions or patients with upper respiratory tract infections who have nasal colonisation have a greater risk of contaminating the environment. |
| ***Incubation period*** | Variable. |
| ***Notifiable disease*** | No. |
| ***Period of communicability*** | As long as MRSA can be isolated from the patient's specimens and until two consecutive negative screens have been obtained which are 72 hours apart. (See specimens required section on page 8). |
| ***Persons most at risk of infection*** | Patients who are colonised, have surgical wounds, pressure ulcers or invasive devices. Patients nursed in Intensive Care Units (ICU) have a higher risk of developing infection. |
| ***Persons who should be screened for possible MRSA carriage*** | Patients who have previously had MRSA infection or colonisation. Patients who have been admitted from care homes, institutions or another hospital etc. Patients with invasive devices, breaks in the skin and/or pressure sores.<br>Refer to Appendix 1<br>Refer to Appendix 3 |

## 3. Transmission Based Precautions for Patients with MRSA

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| ***Patient Placement*** | A single room, preferably en-suite, should be made available for all patients colonised/infected with MRSA. If a single room is not available or in instances where a patient's clinical condition may not support placement in a single room or doors in single rooms cannot be closed. A failure to isolate risk assessment should be undertaken immediately and documented in clinical notes and updated daily.<br><br>Previously positive patients who achieve 2 or more full negative screens prior to admission do not require isolation but should be rescreened on admission or transfer to a high impact speciality / other hospital.<br>See Appendix 1 – National Screening Policy for MRSA |
| ***Care Checklist available*** | Yes. MRSA Care Checklist |
| ***Clearance Criteria*** | Patients should not be removed from isolation/cohort until at least two full consecutive negative screens have been obtained. Screens should be taken at intervals of no less than 72 hours, beginning at least 48 hours after decolonisation therapy has been completed. (Please refer to the section on *Specimens Required*). |
| ***Clinical / Healthcare Waste*** | All non-sharps waste from patients with MRSA should be designated as clinical healthcare waste and placed in an orange bag. Please refer to the NHSGCC Waste Management Policy. |
| ***Contact Screening*** | Contact screening should only be carried out on the advice of the IPCT. |
| ***Decolonisation*** | Following advice from IPCT the patient should be prescribed the decolonisation regimen. Appendix 2 |
| ***Discharge Planning*** | At time of discharge the clinical team with overall responsibility for the patient must inform the General Practitioner and others in the community care team, of the patient's MRSA status. |
| ***Domestic Advice*** | Domestic staff must follow the SOP for Twice Daily Clean of Isolation Rooms. Cleans should be undertaken at least four hours apart. NHSGGC SOP Twice Daily Clean of Isolation Rooms |
| ***Equipment*** | Where practical allocate individual equipment, e.g. own washbowl, commode, hoist sling or sliding-sheet. Decontaminate equipment as per the NHSGGC SOP Cleaning of Near Patient Equipment |

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| ***Hand Hygiene*** | Hands must be decontaminated before and after each direct patient contact, after contact with the environment, after exposure to body fluids and before any aseptic tasks. Patients should be encouraged to carry out hand hygiene. |
| ***Linen*** | Treat used linen as infectious, i.e. place in a water soluble bag then a clear plastic bag (Brown bag used in Mental Health areas), tied and then into a red laundry bag. Please refer to National Guidance on the safe management of linen. |
| ***Moving between wards, hospitals and departments (including theatres)*** | Patient movement should be kept to a minimum. If required, prior to transfer, HCWs from the ward where the patient is located **must** inform the receiving ward, theatre or department of the patient's MRSA status.<br>When patients need to attend other departments the receiving area should put in place arrangements to minimise contact with other patients and arrange for additional domestic cleaning if required. |
| ***Notice for Door (side room only)*** | Yes<br>If patient is isolated, a yellow IPC sign should be placed on the door.<br>N.B. Keep door closed until precautions are lifted. |
| ***Patient Clothing (for home laundering)*** | If relatives or carers wish to take personal clothing home, staff must place clothing into a domestic water soluble bag then into a patient clothing bag and ensure that a Washing Clothes at Home Leaflet is issued.<br>**NB** It should be recorded in the nursing notes that both advice and the information leaflet has been issued. |
| ***Patient Information*** | The clinical team with overall responsibility for the patient must inform the patient and provide written information on MRSA to the patient and any persons caring for the patient, e.g. parent, guardian or next-of-kin, carer, as appropriate. The clinical team should document in the patient notes. See NHSGGC MRSA Patient Information Leaflets |
| ***Personal Protective Equipment (PPE)*** | To prevent spread through direct contact, a yellow apron should be worn when in contact with a patients environment/equipment. Disposable gloves must be worn when exposure to blood and body fluids and non-intact skin is anticipated or likely. |
| ***Screening on Admission /*** | See Appendix 1 |

| | |
|---|---|
| ***Re-admission*** | |
| ***Specimens required (MRSA full Screen)*** | • Both Nostrils<br>• Perineum *****<br>• Skin lesions/ wounds.<br>• Catheter sites, e.g. Central Venous Catheters, Hickman Lines<br>• Catheter specimen urine<br>• Sputum from patients with a productive cough.<br>• Umbilicus (neonates only)<br><br>***** If patient refuses perineal screening they should be offered throat screening. Any modification to the standard screening should be recorded in the notes.<br><br>**NB this may need to be modified for specialist units, e.g. ENT.** |
| ***Screening of Staff*** | If screening is advised it will be undertaken by the OHS. Refer to Staff Screening Policy. |
| ***Terminal Cleaning of side room / bed area*** | Follow NHSGGC SOP Terminal Clean of Ward/Isolation Room |
| ***Transfer or transport by ambulance, patient transport or pool cars*** | Patients colonised with MRSA or who have infected wounds or skin lesions that are covered by an occlusive dressing may be transported with other patients and require no special precautions.<br>Patients who are heavily colonised with MRSA and are considered to be heavy shedders, e.g. have severe psoriasis or eczema, large wounds or burns, should be transported by themselves. It is the responsibility of the ward or department to inform the ambulance service if the patient falls into this category when transport is arranged. |
| ***Visitors*** | Visitors are not required to wear aprons and gloves unless they are participating in patient care. They should be advised to decontaminate their hands on entering and leaving the room / patient. |

## 4. Evidence Base

Coia JE *et al*. Working Party Report. Guidelines for the control and prevention of meticillin-resistant *Staphylococcus aureus* (MRSA) in healthcare facilities. Journal of Hospital Infection
63S S1-S44. 2006.

Health Protection Scotland, 2019. Protocol for CRA MRSA Screening National Rollout in Scotland, V1.10

Health Protection Scotland, 2011. NHS Scotland MRSA Screening Pathfinder Programme.

National Infection Prevention and Control Manual

## 5. Useful Links

NHS Greater Glasgow & Clyde Prevention & Control of Infection Web Page.
www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control

Public Health Scotland
www.hps.scot.nhs.uk

## Appendix 1 – National Screening Policy for MRSA

### Introduction

The National MRSA Screening Programme includes a universal programme of Clinical Risk Assessment (CRA) as a first line screening test for all admissions >23 hours. The CRA identifies patients at high-risk of MRSA colonisation, who will be screened (nose and perineum).

**For completion within 24 hours of admission:**

**Part A:** **CRA (Clinical Risk Assessment) for all admissions >23 hours**

1. Has the patient ever had a previous positive MRSA result?
2. Has the patient been admitted from a care home/institutional setting or another hospital?
3. Does the patient have a wound/ ulcer or invasive device which was present prior to admission?

*If the patient answers '**Yes**' move to **Part B**,*

**Part B:** **Full Screen – Swab Test includes:**

- Both nostrils
- Perineum * (If patient refuses perineal screening they should be offered throat screening. Any modification to the standard screening should be recorded in the notes)

Also if present:

- skin lesions/wounds
- invasive devices, e.g. Central Venous Catheters, catheter urine,
- sputum from patients with a productive cough

**Part A and B:** **High Impact Specialties:**

All admissions (>23 hours) to the following specialties (in addition to having a CRA completed) should receive a nasal and perineal MRSA screen within 24 hours of admission:

- ICU/ ITU/ HDU (Intensive Care/ Therapy/ High Dependency Unit)
- Orthopaedics
- Renal/ Nephrology
- Vascular
- Cardiothoracic Surgery

- **Exclusions:** Patients admitted to the following specialties are not required to be screened under the National Programme. Day cases or patients with a length of stay <23 hours (unless previously positive in which case a full MRSA screen should be taken)
- Psychiatry
- Obstetrics
- Paediatrics
- Continuing Care

## Admission Screening Criteria:

| Type of admission | When should they be screened? | How should they be screened? |
|---|---|---|
| Elective patients to high impact specialties | At pre-assessment or out-patient clinic where possible and within 18 weeks of procedure, if not, then on admission to hospital (within 24 hours of admission, and certainly prior to the elective procedure) | CRA and then two body site swabbing (nasal and perineal) regardless of the answers given in the CRA |
| Elective patients to non-high impact specialties | | CRA and if they answer yes to at least one question, two body site swabbing (nasal and perineal) |
| Emergency patients to high impact specialties | On admission to hospital, within 24 hours of admission. It is not recommended that screening is undertaken in Accident and Emergency. | CRA and then two body site swabbing (nasal and perineal) regardless of the answers given in the CRA |
| Emergency patients to non-high impact specialties | | CRA and if they answer yes to at least one question, two body site swabbing (nasal and perineal) |

**CRA should be completed on transfer into a High Impact Area from a Non High Impact Area or if patient is transferring from 1 hospital to another hospital.**

## Transfer Screening Criteria:

| Type of transfer | When should they be screened? | How should they be screened? |
|---|---|---|
| Transfer into a high impact specialty (from any source other than a high impact specialty) | Once they have been transferred into their new location (within 24 hours). | Two body site swabs (nasal and perineal). **Note**: If the patient has previously been swabbed and the result is awaited from the lab, there is no requirement to again swab the patient. |
| Transfer from one hospital into another hospital (within the same Board, regardless of the specialty) | | |
| Transfer from one Board to another Board | | |
| Transfer from one high impact specialty to another high impact specialty in the same hospital | There is no requirement to undertake another screen. | N/A |
| Transfer from one non-high impact specialty to another non-high impact specialty in the same hospital | | |

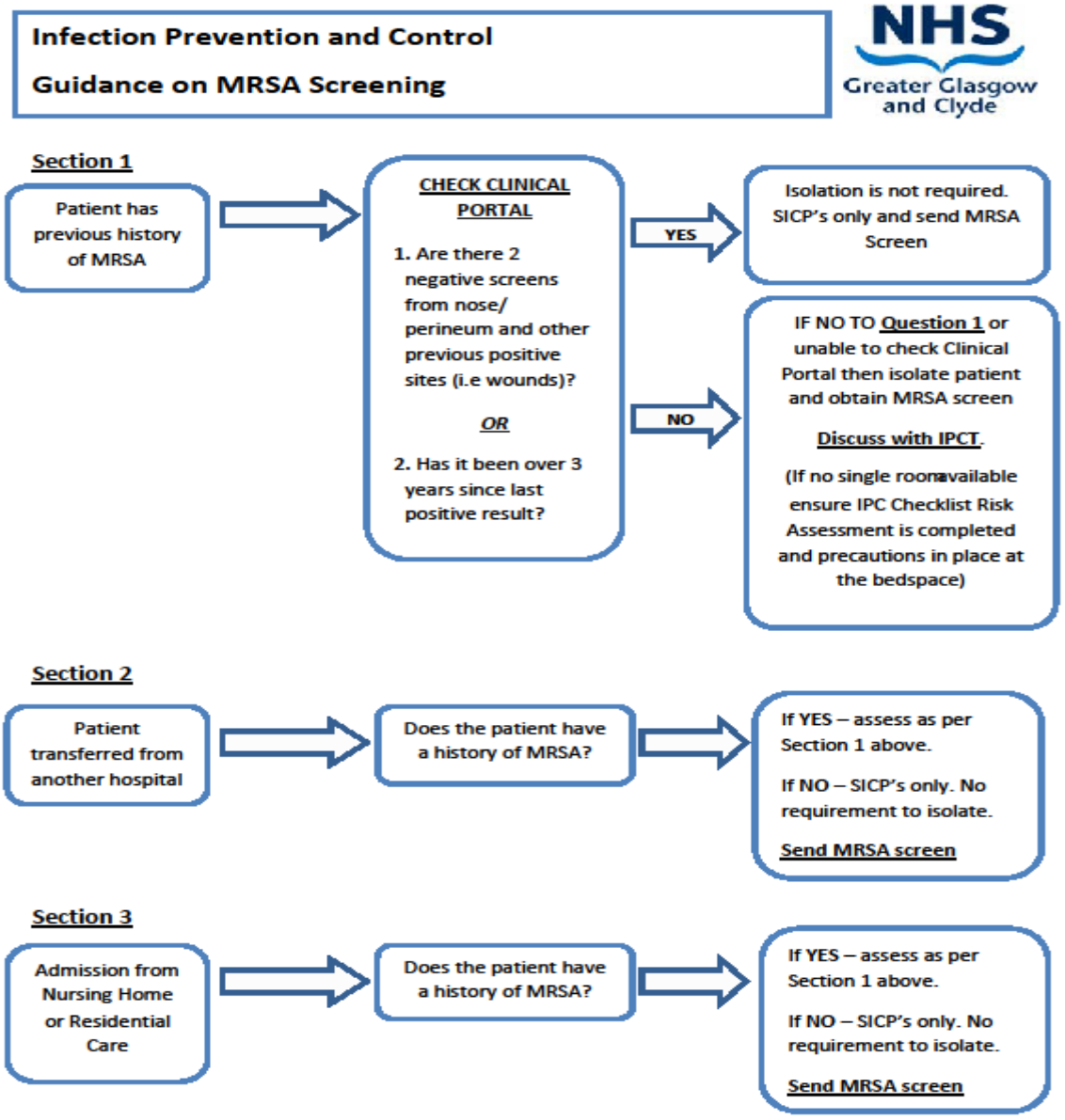
## Appendix 2 – Decolonisation Regimen

### Nasal and Skin Decolonisation

Prior to commencing any treatment, results from the patient's most recent MRSA screen must be available. If patients have exfoliative skin conditions any treatment must be reviewed by the clinician in charge of the patient care. If unable to commence decolonisation contact IPCT.

| Nasal Decolonisation | Treatment |
|---|---|
| | **Mupirocin Sensitive MRSA**<br>Mupirocin 2% in paraffin base should be applied to the inner surface of each nostril three times daily for five days. The patient should be able to taste the mupirocin at the back of their throat following application.<br><br>Mupirocin should be used for five days, stopped for two then the patient should be re-screened.<br><br>**Mupirocin should only be used for two five-day courses** (within a 6 month period) **and should not be used for prolonged courses or used repeatedly (>2 times).**<br><br>**Mupirocin Resistant MRSA**<br>Nasal Naseptin applied to the inner surface of each nostril four times daily for five days should replace Mupirocin. Naseptin should be avoided in patients with peanut allergy. Please discuss an alternative with a microbiologist. |
| **Skin Decolonisation** | **Treatment** |
| | **Chlorhexidine Gluconate 4%**<br><br>**Use**: 25mls of neat liquid should be used for each shower/ assisted wash, daily beginning with the face and working downwards, paying particular attention to the armpits (axilla) and groin area. Rinse and repeat washing with a further 25mls of liquid. Rinse and dry thoroughly. Use in conjunction with nasal ointment as above.<br>Wash hair with 25mls of liquid and rinse, at least twice per week.<br>If any irritation occurs discontinue use and seek advice from the appropriate clinicians.<br>Alternative products are available for patients with fragile skin conditions i.e. Neonates, radiotherapy patients. |

**Appendix 3**




**MRSA SCREEN consists of swabs obtained from Nose/Perineum & wounds/invasive devices as per Appendix 1 of the MRSA SOP**

Protocol for CRA MRSA Screening National Rollout in Scotland