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

- **Updates to wording Section 2. General Information on Patients**
- **Updates to wording Section 3. Transmission Based Precautions**
- **Updates to Appendix 1**
- **Updates to Appendix 2**

Document Control Summary

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Related Documents	National Infection Prevention and Control Manual NHSGGC Hand Hygiene Guidance NHSGGC SOP Terminal Clean of Ward/Isolation Room NHSGGC SOP Twice Daily Clean of Isolation Rooms
Distribution/ Availability	NHSGGC Infection Prevention and Control web page 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

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: Disposable gloves and yellow apron

Patient Environment: Twice daily chlorine clean

Patient Equipment: Chlorine clean after use and at least on a twice daily basis

Laundry: Treat as infected

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, which is regularly reviewed and updated.
- 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

Communicable Disease/ Alert Organism	Meticillin 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. 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. 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	Refer to Appendix 1, page 11 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,
Persons who disperse large quantities of MRSA	MRSA positive patients who have large burns or widespread exfoliating skin conditions. Patients with upper respiratory tract infections who have nasal colonisation.

3. Transmission Based Precautions for Patients with MRSA

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, a risk assessment should be undertaken ASAP by the ward staff to identify what precautions are required at the bedside. This must be documented in the patient notes and reviewed daily, using the failure to isolate risk assessment. Inform the IPCT. Doors in single rooms should be kept closed. If this is not possible, a risk assessment should be undertaken and documented in clinical notes. Previously positive patients who achieve 2 or more full negative screens prior to admission do not require isolation but should be rescreened. 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	If recommended by the IPCT the clinician should prescribe and follow the decolonisation regimen. Appendix 2, page 13
Discharge Planning	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. This should not delay patient discharge or transfer.

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
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 soiled/ infected, i.e. place in a water soluble bag then a clear plastic bag, tied and then into a laundry bag. (Brown bag used in Mental Health areas) 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. 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)	Place a designated IPCT approved notice on the door
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. **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 PPE (disposable gloves and yellow apron) must be worn for all direct contact with the patient or the patient's environment/equipment.
Procedure Restrictions	There is no reason to place patients with MRSA at the end of operation/procedure lists. No restrictions are required in Out-Patient settings but strict adherence to SICPs is essential
Referral	It is the responsibility of clinical staff within the area to inform GPs and other hospitals or care homes of a patient's MRSA status when they are being discharged or transferred.
Screening on Admission / Re-admission	See Appendix 1, page 11.
Specimens required (MRSA full Screen)	• Both Nostrils • Perineum * • Skin lesions/ wounds. • Catheter sites, e.g. Central Venous Catheters, Hickman Lines • Catheter specimen urine • Sputum from patients with a productive cough. • Umbilicus (neonates only) * If patient refuses perineal screening they should be offered throat screening. Any modification to the standard screening should be recorded in the notes. **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.
Surgical/ Invasive procedures	Patients who are colonised with MRSA - prior to any planned invasive procedure efforts should minimise the risk of infection by using topical and systemic decolonisation and prophylactic antimicrobial therapy as advised by the microbiologist.
Terminal Cleaning of side room / bed area	Follow NHSGGC SOP Terminal Clean of Ward/Isolation Room
Transfer or	Patients colonised or infected with MRSA are classified into two

transport by ambulance, patient transport or pool cars	categories by the Scottish Ambulance Service: **Category 1** – Most patients colonised with MRSA or who have infected wounds or skin lesions that are covered by an occlusive dressing may be transported with others and require no special precautions. **Category 2** – 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. The ambulance service will implement appropriate precautions to this category. It is the responsibility of the ward or department to inform the ambulance service of patients who fall into Category 2 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 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 Pathfinder Programme SBAR Report to Scottish Government Health Directories: policy implications of further research studies for national rollout of MRSA screening.
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

Health Protection 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. (This does not mean that these categories of patient should not be screened if there is a clinical need to do so):

- 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)

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 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. Mupirocin should be used for five days, stopped for two then the patient should be re-screened. **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).** **Mupirocin Resistant MRSA** 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% **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 conjuction with nasal ointment as above. Wash hair with 25mls of liquid and rinse, at least twice per week. If any irritation occurs discontinue use and seek advice from the appropriate clinicians. Alternative products are available for patients with fragile skin conditions i.e. Neonates, radiotherapy patients. If required

	contact your local IPCT.