

# NHS GREATER GLASGOW & CLYDE BOARD INFECTION CONTROL COMMITTEE STANDARD OPERATING PROCEDURE METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA) Page 1 of 14 Effective From Review Date Version 9

The most up-to-date version of this SOP can be viewed at the following web page: www.nhsggc.scot/hospitals-services/services-a-to-z/infection-prevention-and-control

#### **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 <u>only</u> 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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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
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	www.nhsggc.scot/hospitals-services/services-a-to-
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Lead Manager	Director Infection Prevention and Control
Responsible Director	Executive Director of Nursing



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#### **STANDARD OPERATING PROCEDURE** METHICILLIN RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

Version

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#### **MRSA Aide Memoire**

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

- ✓ ensuite / own commode
- √ door closed
- ✓ IPC yellow sign on door
- ✓ dedicated equipment
- ✓ <u>Care Checklist</u> 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.

YES

- ✓ Stop isolation
- ✓ undertake terminal clean of room

### SOP - Guidelines for patients in isolation:

<u>Hand Hygiene:</u> 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.

<u>Patient Environment:</u> Twice daily chlorine clean

<u>Patient Equipment:</u> Chlorine clean immediately after each use and twice daily

Linen: Treat as infectious

Waste: Dispose of as Clinical / Healthcare waste

**Incubation Period: variable** 

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

Notifiable disease: No

<u>Transmission route:</u> direct, indirect contact

NO



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#### 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.



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#### 2. General Information on patients with MRSA

Communicable	Methicillin Resistant Staphylococcus aureus is a Gram-positive	
Disease/ Alert	bacterium, resistant to a variety of antibiotics. It is particularly	
Organism	challenging because it can survive well (up to 6 months) in dry	
	conditions.	
Clinical	Patients may be colonised without any signs of infection.	
Condition(s)	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	As long as MRSA can be isolated from the patient's specimens	
communicability	and until two consecutive negative screens have been obtained	
_	which are 72 hours apart. (See specimens required section on	
	page 8).	
Persons most at	Patients who are colonised, have surgical wounds, pressure ulcers	
risk of infection	or invasive devices. Patients nursed in Intensive Care Units (ICU)	
	have a higher risk of developing infection.	
Persons who should	Patients who have previously had MRSA infection or colonisation.	
be screened for	Patients who have been admitted from care homes, institutions	
possible MRSA	or another hospital etc. Patients with invasive devices, breaks in	
carriage	the skin and/or pressure sores.	
_	Refer to Appendix 1	
	Refer to Appendix 3	



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#### 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 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.  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.  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 <i>Specimens Required</i> ).
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 <a href="https://www.nhsch.org/ncbe/">NHSGCC Waste Management Policy</a> .
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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<b>Hand Hygiene</b> Hai	
pat exp	nds must be decontaminated before and after each direct ient contact, after contact with the environment, after osure to body fluids and before any aseptic tasks. Patients all be encouraged to carry out hand hygiene.
the tied	at used linen as infectious, i.e. place in a water soluble bag n a clear plastic bag (Brown bag used in Mental Health areas), d and then into a red laundry bag. Please refer to <u>National</u> dance on the safe management of linen.
wards, hospitals prid	ient movement should be kept to a minimum. If required, or to transfer, HCWs from the ward where the patient is ated <b>must</b> inform the receiving ward, theatre or department of patient's MRSA status.
are oth	en patients need to attend other departments the receiving a should put in place arrangements to minimise contact with er patients and arrange for additional domestic cleaning if uired.
Notice for Door Yes	
_	atient is isolated, a yellow IPC sign should be placed on the
dod	• •
N.E	. Keep door closed until precautions are lifted.
Patient Clothing If re	elatives or carers wish to take personal clothing home,
(for home sta	ff must place clothing into a domestic water soluble bag then
	o a patient clothing bag and ensure that a <u>Washing Clothes at</u> me <u>Leaflet</u> is issued.
	It should be recorded in the nursing notes that both advice I the information leaflet has been issued.
Information info the gua sho	clinical team with overall responsibility for the patient must form the patient and provide written information on MRSA to patient and any persons caring for the patient, e.g. parent, ordian or next-of-kin, carer, as appropriate. The clinical team full document in the patient notes. See NHSGGC MRSA itent Information Leaflets
<b>Personal Protective</b> To	prevent spread through direct contact, a yellow apron should
Equipment (PPE) be	worn when in contact with a patients
env	rironment/equipment. Disposable gloves must be worn when
exp	osure to blood and body fluids and non-intact skin is
ant	icipated or likely.
<b>Screening on</b> See	Appendix 1



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Re-admission		
Specimens required (MRSA full Screen)	<ul> <li>Both Nostrils</li> <li>Perineum *</li> <li>Skin lesions/ wounds.</li> <li>Catheter sites, e.g. Central Venous Catheters, Hickman Lines</li> <li>Catheter specimen urine</li> <li>Sputum from patients with a productive cough.</li> <li>Umbilicus (neonates only)</li> <li>* If patient refuses perineal screening they should be offered throat screening. Any modification to the standard screening should be recorded in the notes.</li> </ul>	
	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 <a href="Staff Screening Policy">Staff Screening Policy</a> .	
Terminal Cleaning of side room / bed area	Follow NHSGGC SOP <u>Terminal Clean of Ward/Isolation Room</u>	
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.  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.	



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#### 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



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#### 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



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- Exclusions: Patients admitted to the following specialties are <u>not required</u> 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



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#### **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,	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	then on admission to hospital (within 24 hours of admission, and certainly prior to the elective procedure)	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	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	undertaken in Accident and Emergency.	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)  Transfer from one hospital into another hospital (within the same Board, regardless of the specialty)	Once they have been transferred into their new location (within 24 hours).	Two body site swabs (nasal and perineal). <b>Note</b> : 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 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	N/A
Transfer from one non-high impact specialty to another non-high impact specialty in the same hospital	screen.	



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#### 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 <u>four times</u> 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%
	<b>Use</b> : 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.
	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.



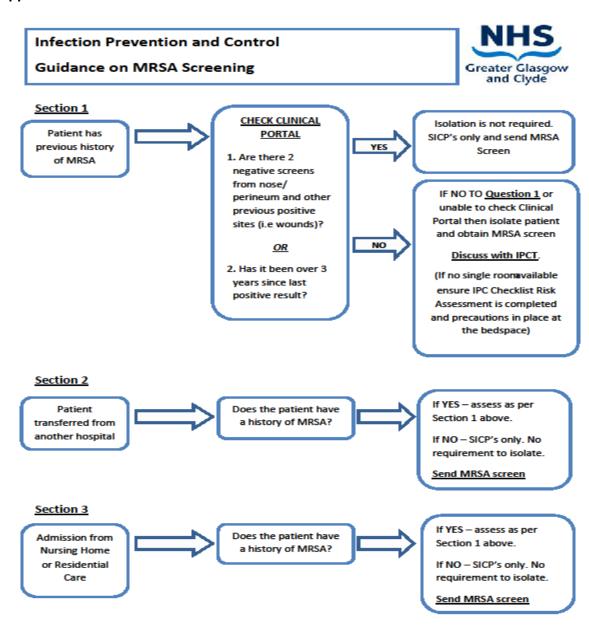
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#### **Appendix 3**



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