

STANDARD OPERATING PROCEDURE METICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS (MRSA)

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Name of Trust Strategy / Policy / Guidelines this SOP refers to:	<ul style="list-style-type: none"> • Consent to Assessment, Examination and Treatment policy and procedure (N-052). • Transmission Based Precautions (SOP24-033).

VALIDITY – All local SOPS should be accessed via the Trust intranet

CHANGE RECORD

Version	Date	Change details
1.0	May 2024	New SOP to replace MRSA Policy (N-021). Approved at Healthcare Associated Infection Group (HAIG) (26 May 2024).

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1. INTRODUCTION

Meticillin-resistant Staphylococcus aureus (MRSA) remains a serious cause of Healthcare Associated Infection (HCAI) worldwide and the epidemiology of MRSA continues to change, resulting in MRSA being no longer limited to hospitalised patients or persons with predisposing risk factors.

Despite reduction in UK prevalence, MRSA remains to be a problem. They are challenging to cure because some strains have become resistant to many first-line antibiotics. Infections with this organism commonly may cause mild symptoms such as a boil or a wound infection but can then spread quickly to produce extensive, potentially fatal skin and soft tissue infections or through the bloodstream to the lungs, bones, kidneys or heart. MRSA infections are associated with substantial suffering and death.

This Standard Operating Procedure (SOP) has been developed to describe the accountability framework for implementation of the protocols that are recommended within the Trust for the prevention and control of MRSA, thereby reducing patient morbidity and mortality and supporting Trust compliance with the Health and Social Care Act 2008: code of practice on the prevention and control of infections and related guidance (2022).

2. SCOPE

This SOP applies to all health care workers employed by Humber Teaching NHS Foundation Trust (including contractors, agency / locum staff, students and visiting / honorary consultant / clinicians) that undertake patient care, or who may come into contact with affected patients.

3. DUTIES AND RESPONSIBILITIES

Chief Executive

The Chief Executive has a responsibility to ensure that the Trust complies with all its legal and regulatory obligations.

Director of Infection Prevention and Control (DIPC)

The Director of Infection Prevention and Control (DIPC) has the strategic responsibility for all infection prevention and control activity within the Trust.

Care Division Leads

The Care Division leads will:

- Ensure full implementation of this SOP within their sphere of responsibility.
- Promote effective antimicrobial stewardship in accordance with NICE (NG15) 2015.

Matrons

The Matrons will:

- Ensure that the SOP is being implemented within their sphere of management responsibility and take the necessary action to address staff not working in accordance with this SOP and escalate if necessary.
- Provide a quarterly IPC report that includes information regarding:
 - MRSA/MSSA Bacteraemia cases
 - MRSA screening compliance
 - Alert Organism Management

Service Manager

The Service Manager will:

- Support the implementation of this SOP.

- Address any issues raised in relation to the application of this SOP in practice.

Ward Managers / Deputy Managers / Clinical Effectiveness Lead / Team Leaders

The Ward Managers / Deputy Managers / Clinical Effectiveness Lead / Team Leaders will:

- Ensure that this SOP is fully implemented by all members of their respective clinical teams. Any concerns that cannot be resolved at team level should be highlighted to the Modern Matron and a member of the Infection Prevention and Control Team (IPCT).
- Ensure that all staff within their designated area of responsibility are aware of the MRSA SOP and have had appropriate training and always adhere to the principles.
- Ensure that any breaches of the SOP are dealt with effectively and if necessary as a clinical incident.

Infection Prevention and Control Team (IPCT)

The IPCT will:

- Renew this SOP as required, utilising up to date evidence and guidance.
- Provide expert advice, support and training in accordance with this SOP.
- Support all care groups and staff in the implementation of this SOP.
- Plan and deliver a programme of infection prevention and control education for all Trust staff which will include the principles of MRSA and its management.
- Monitor and review all patients with MRSA with the clinical team/staff.
- Lead an incident review in the event of an MRSA bloodstream infection.

Occupational Health Department

The Occupational Health Department will:

- Provide support in accordance with national guidance regarding staff screening.
- Work in partnership with the IPCT for the management of staff in the event of an MRSA outbreak.

Role of Individual Staff Members

It is everyone's responsibility to maintain and update their knowledge, ensuring they have read this SOP and to practice in accordance with and the National IPC Manual (NHS England 2022). Any breaches of this SOP must be reported to their line manager.

Clinical staff members who work in inpatient areas are to ensure the Infection Prevention and Control (IPC) Initial Risk Assessment is completed within 24-48 hours for each direct admission to their area. MRSA screening criteria is part of the IPC Initial Risk Assessment. Clinical staff members are also advised to ensure the IPC Initial Risk Assessment is fully completed for patients transferred to their inpatient area from other inpatient areas within the Trust.

4. PROCEDURES

4.1. Screening

Based upon the good practice recommendations within the Joint Healthcare Infection Society (HIS) and Infection Prevention Society (IPS) guidelines for the prevention and control of meticillin-resistant *Staphylococcus aureus* (MRSA) in healthcare facilities (2021) and the National IPC Manual in relation to patient placement, the Trust routine admission MRSA screening criteria for all inpatient units is the following:

- All patients previously identified as colonised with or infected by MRSA.
- All patients transferred from a hospital abroad.
- All patients who have an identified breach of skin integrity e.g. self-harm wound, surgical wound, chronic ulcer and pressure sore.
- All patients with an invasive device e.g. urinary catheter, gastrostomy tube.

All patients must have the IPC Initial Risk Assessment completed on admission and any patient who meets the eligibility criteria must undergo MRSA screening within the first 24-48 hours of admission. If staff are unable to obtain a screen this to be documented on the IPC Initial Risk

Assessment.

MRSA screening swabs processed at Hull Royal Infirmary laboratory:

- A routine body screen comprises one nasal swab (both nostrils one swab) and a combined axilla/groin swab.

Please see Appendix A for further guidance.

MRSA screening swabs processed at York Teaching Hospital NHS Foundation Trust laboratory:

- A routine body screen comprises one nasal swab (both nostrils one swab) and a separate axilla (one swab for both sides) swab and separate groin swab (one swab for both sides).

Please see Appendix B for further guidance.

In addition to the routine body MRSA screens above on admission, the following to be obtained when applicable:

- A swab from the wound site(s) (clearly state the wound site).
- A urine sample/specimen (if urinary catheter present).
- A swab from gastrostomy tube insertion site.

MRSA screening may be required when a patient displays signs of clinical infection or as part of an MRSA outbreak, but this will be on the advice of the IPCT or the Clinician managing the patients care.

All swabs/specimens must be labelled clearly and correctly with the patient's details and site of swab/specimen. For further advice on MRSA screening please contact the IPCT.

4.2. Diagnosis and Testing

MRSA swabs/specimens will be managed in accordance with the processing microbiological laboratory.

4.3. Consent

Consent must be obtained from the patient prior to undertaking an MRSA screen, in accordance with the Trust [Consent to Assessment, Examination and Treatment policy and procedure \(N-052\)](#). Patients must be informed of their results by an appropriate clinician at the earliest opportunity on the receipt of the MRSA results.

4.4. Treatment

MRSA Colonisation

Inpatient

The IPCT must be notified of any positive MRSA results obtained. This is to ensure an alert is placed upon the electronic patient record and to provide support in the management of the patient. All inpatients found to be colonised with MRSA will be considered for a course of a decolonisation treatment to reduce the MRSA carriage to control any existing clinical infection, to reduce risk of the patient developing a clinical infection with MRSA, or to reduce the risk of transmitting the MRSA to the environment, to other patients or to staff. National guidelines recommend Mupirocin for nasal decolonisation, chlorhexidine for body decolonisation, alternatives to consider where mupirocin and chlorhexidine are not feasible e.g. octenidine (Coia et al, 2021).

It is the responsibility of the nurse in charge to commence and manage the patient in accordance with the care outlined on the Trust approved MRSA care plan and screening record embedded within the Trusts electronic patient record system.

Following each application of body decolonisation, staff to provide clean clothing, bedding, and towels.

Consider repeat MRSA screening two to three days following the end of decolonisation therapy, to determine whether decolonisation was successful or not. Do not delay a surgical procedure if the patient still tests positive (Coia et al 2021).

Community

For patients being managed in the community the GP will be responsible for risk assessing the need for decolonisation treatment. Advice can be sought from Infection Control Doctor and or the IPCT.

MRSA Infection

In cases of a clinical MRSA infection being identified decolonisation treatment plus a course of suitable antibiotics is required. Further guidance on antibiotic choice can be found in the Trust approved Guidelines for the Treatment of Infections or in discussion with the Consultant Microbiologist / Infection Control Doctor.

Some patients may require further treatment, this will be assessed by taking into consideration the risk factors for the individual patient and will be guided by the IPCT as part of the weekly review of the patient.

MRSA/MSSA PVL Infection

Patients identified to have a Panton-Valentine Leukocidin (PVL) producing strain of MRSA/MSSA infection will be managed in accordance with current national guidance (Health Protection Agency 2008) [Guidance on the diagnosis and management of PVL-associated Staphylococcus aureus infections \(PVL-SA\) in England](#). This guidance applies to both inpatients and community patients. Following an assessment of the patient and any close contacts and presenting risk factors as per the guidance, close contacts may receive a course of decolonisation treatment concurrently with the patient.

4.5. Infection Prevention and Control Measures – Inpatient areas

Some patients found to be MRSA positive will already have been nursed in clinical areas prior to diagnosis, the importance of maintaining a high standard of standard infection control precautions in accordance with the National IPC Manual (NHS England, 2022) within all clinical areas always cannot be over emphasised. This includes good hand hygiene practice, the appropriate use of personal protective equipment (PPE) and effective environmental cleaning. All infection prevention and control measures need to be taken in accordance with the Trust MRSA Guidance at Glance document, which can be accessed via the IPC [Document Store intranet page](#).

4.6. Isolation Precautions

It is recommended that any patient found to be MRSA positive in an inpatient setting are nursed in a single room preferably with en suite facilities particularly if they have a discharging wound, large open wound, abscess, exfoliating skin condition, productive cough or urinary incontinence associated with the condition. For patients known to be colonised / infected with MRSA, Contact Precautions are required for direct contact with the patient or their immediate environment. In all instances the period of isolation will be determined based on an assessment of the risk of transmission to other patients in the setting and consideration to be given to minimising any negative impact on the patient due to the need to isolate.

Factors to be considered as part of the risk assessment:

- Screening results e.g. patient may receive positive results for a wound(s) only and negative results for body sites.
- Concordance with decolonisation therapy.
- If a wound is found to MRSA positive, the assessment outcome, the wound to be managed in accordance with the wound management pathway for colonised / infected MRSA wound.
- Individuals understanding of the importance of maintaining precautionary measures such as hand hygiene.
- Potential risk factors posed by other patients residing on the ward i.e. invasive devices, wounds, immunocompromised status.

4.7. Infection Prevention and Control Measures – Community

When visiting patients in their own home who are known to be MRSA positive, good standard infection control precautions in accordance with the National IPC Manual (NHS England, 2022) the use of PPE and effective hand decontamination should be maintained to prevent transmission between patients. Any reusable equipment that is used in the delivery of the patient's care must be decontaminated prior to being used on another patient e.g. sphygmomanometer.

Isolation of patients is not necessary in the home setting. Patients may mix with friends and relatives and socialise outside the home provided any affected wounds are well covered. If there are concerns regarding the patient having contact with friends or family members who may themselves pose increased vulnerability to acquiring infection, advice may be sought from the IPCT.

4.8. Communication

Ensuring there is effective communication with the patient regarding their MRSA status is imperative. A patient information leaflet should be provided to each patient identified as MRSA positive, which can be accessed via the IPC [Document Store intranet page](#).

4.9. Staff Screening

Screening of staff is not recommended on a routine basis. Staff will only be screened if there has been a particular problem on a ward or has been advised by the Consultant Microbiologist. The screening will be supervised by the Occupational Health Department. Staff **must not** screen themselves without prior permission.

4.10. Movement of Affected Patients

Patients affected by any infectious disease may be transferred to other wards and departments, but consultation with the IPCT may be necessary. MRSA colonisation / infection should not normally prohibit a patient's attendance at other hospital department where attendance is deemed as necessary e.g. Outpatients Departments, X-ray, Physiotherapy, and Occupational Therapy. If patient transfers or visits to other departments are considered necessary, the receiving area should be informed of the patient's status in advance. Where possible patients should be treated at the end of a session and their waiting time in the department kept to a minimum.

Patients who require transfer to any other healthcare setting should be documented and an **Inter Healthcare Infection Control Transfer Form** completed. It is essential that written and verbal information is given to the accepting area to ensure that the patient is placed in an appropriate location in the ward or department to minimise the risk. Further advice may be sought from the IPCT.

4.11. Discharge Planning

Affected patients may be discharged home as soon as considered medically fit. Effective verbal communication with other institutions / healthcare professionals is imperative before the patient is discharged and this should be supported by written information e.g. a discharge letter / Inter Healthcare Infection Control Transfer Form. MRSA colonisation is not a barrier to discharging patients to another health care setting, their home or residential care.

4.12. MRSA Bacteraemia Reporting

A bacteraemia may occur when MRSA or MSSA enters the bloodstream from a local site of infection (e.g. wound, ulcer or abscess) or via an invasive device (e.g. intravenous catheter / urinary catheter) placed there for medical care. If a patient is identified as having an MRSA or MSSA bacteraemia the IPCT need to be informed immediately to ensure the patient is cared for appropriately. If the result has been obtained out of hours the doctor responsible for the patients' care must speak to the Consultant Microbiologist / Infection Control Doctor at the hospital where the specimen was processed to ensure the patient is managed appropriately. This may include the necessity to transfer the patient to an acute setting.

Each case of MRSA bacteraemia will be managed in accordance with national guidance on the reporting and monitoring arrangements for MRSA bloodstream infections and local Patient Safety Incident Review Framework processes. A Datix is required to be submitted and an Initial Incident Review (IIR).

5. REFERENCES

Coia JE et al (2021) Joint Healthcare Infection Society (HIS) and Infection Prevention Society (IPS) guidelines for the prevention and control of meticillin-resistant Staphylococcus aureus (MRSA) in healthcare facilities. 2021. Journal of Hospital Infection; 118 S1-S39. [Page link](#) [Document link](#)

Department of Health (2022) The Health and Social Care Act 2008 Code of Practice on the prevention and control of infections and related guidance, London. [Page link](#)

Hull and East Riding Prescribing Committee (HERPC) (2017) Guidelines for Treatment of Infections in Primary Care in Hull and East Riding. [Document link](#)

Health Protection Agency (2008) Guidance on the diagnosis and management of PVL-associated Staphylococcus aureus infections (PVL-SA) in England [Page link](#)

H. P. Loveday et al. (2014) EPIC 3: National evidence –based guidelines for preventing healthcare-associated infection in NHS Hospitals in England. Journal of Hospital Infection 86S1 (S1–S70) [Page link](#)

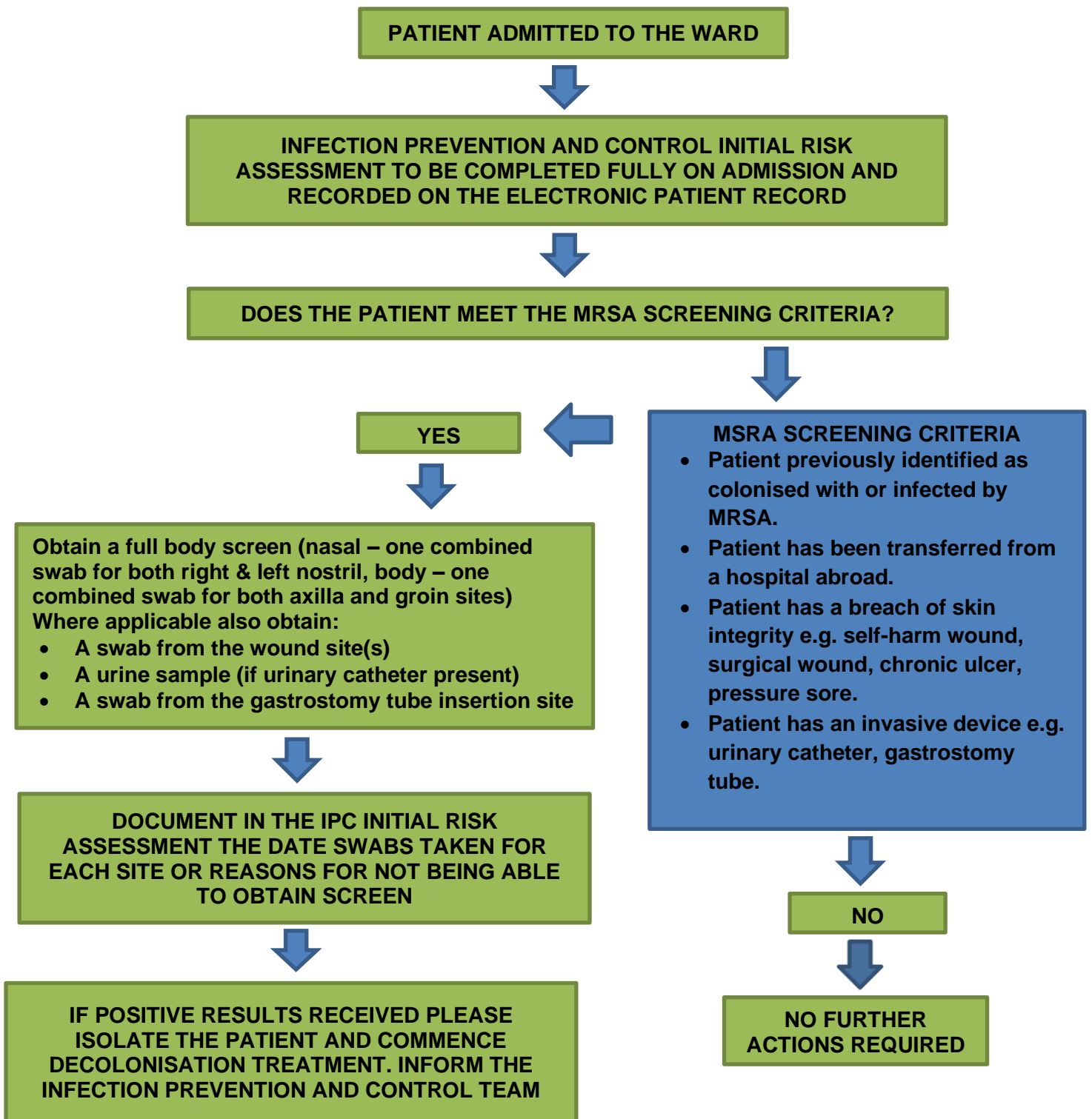
Humber Teaching NHS Foundation Trust Transmission Based Precautions SOP [Page link](#)

Humber Teaching NHS Foundation Trust [Consent to Assessment, Examination and Treatment policy and procedure \(N-052\)](#).

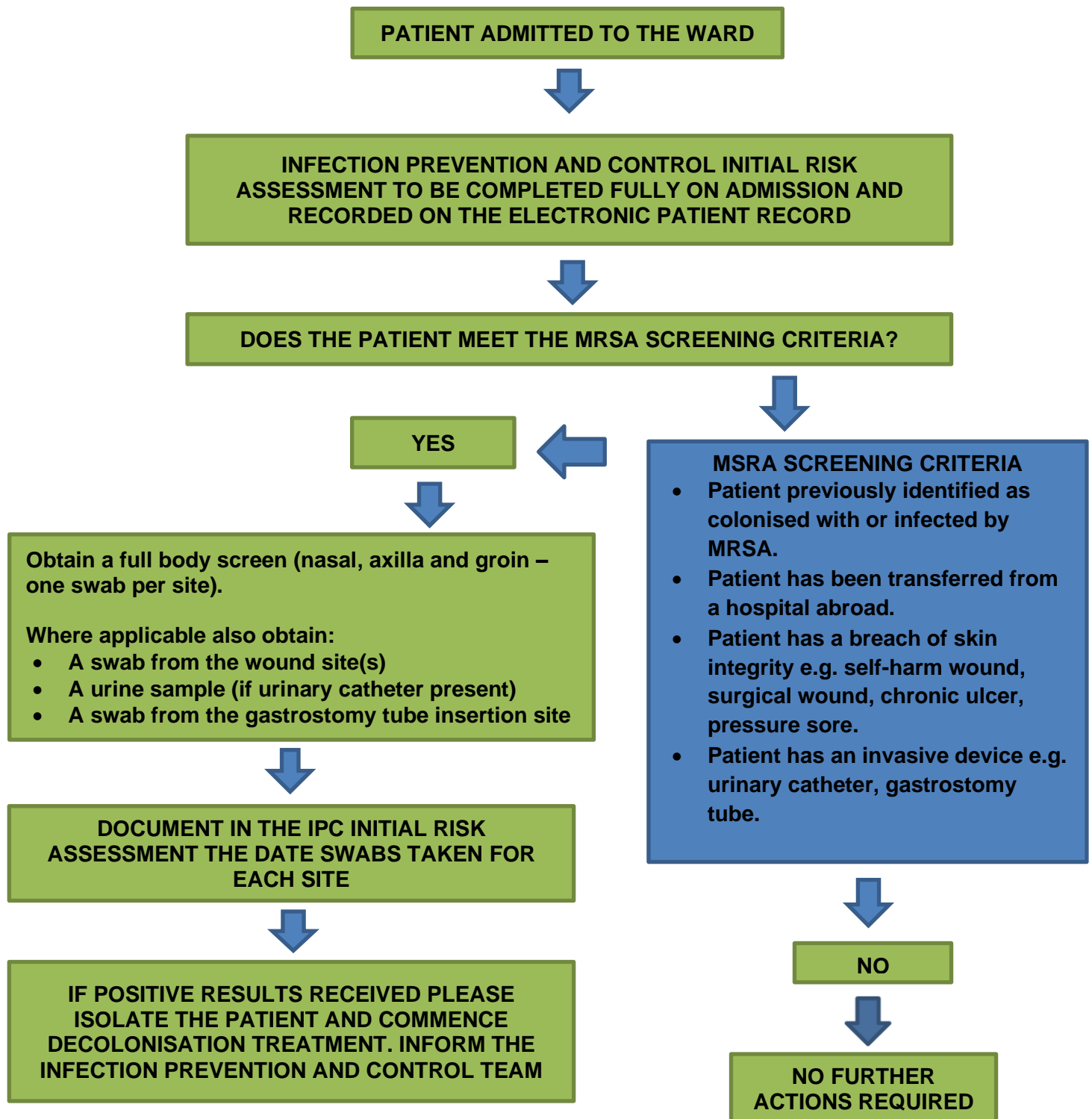
NHS England (2022) National infection prevention and control manual for England [Page link](#)

NICE (2015) Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use NICE guideline [NG15] [Page link](#)

Appendix A – IPC Initial Risk Assessment and MRSA Screening Guidance (Mental Health and Learning Disability Inpatient Units)



**Appendix B – IPC Initial Risk Assessment and MRSA Screening Guidance
(Whitby/Malton Inpatient Unit)**



Appendix C – Equality Impact Assessment

For strategies, policies, procedures, processes, guidelines, protocols, tenders, services

1. Document or Process or Service Name: MRSA SOP
2. EIA Reviewer (name, job title, base and contact details): Deborah Davies Lead Nurse Infection Prevention and Control. Mary Seacole, Willerby Hill, (01482) 389232.
3. Is it a Policy, Strategy, Procedure, Process, Tender, Service or Other? SOP.

<p>Main Aims of the Document, Process or Service</p> <p>This SOP is designed to provide procedural guidance for all staff to assist in the prevention and control of MRSA and directly manage any patient who is confirmed as positive consistently and safely to reduce the risk of cross transmission.</p>
<p>Please indicate in the table that follows whether the document or process has the potential to impact adversely, intentionally or unwittingly on the equality target groups contained in the pro forma</p>

<p>Equality Target Group</p> <ol style="list-style-type: none"> 1. Age 2. Disability 3. Sex 4. Marriage/Civil Partnership 5. Pregnancy/Maternity 6. Race 7. Religion/Belief 8. Sexual Orientation 9. Gender re-assignment 	<p>Is the document or process likely to have a potential or actual differential impact with regards to the equality target groups listed?</p> <p>Equality Impact Score</p> <p>Low = Little or No evidence or concern (Green)</p> <p>Medium = some evidence or concern (Amber)</p> <p>High = significant evidence or concern (Red)</p>	<p>How have you arrived at the equality impact score?</p> <ol style="list-style-type: none"> a) who have you consulted with b) what have they said c) what information or data have you used d) where are the gaps in your analysis e) how will your document/process or service promote equality and diversity good practice
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Equality Target Group	Definitions	Equality Impact Score	Evidence to support Equality Impact Score
Age	Including specific ages and age groups: Older people Young people Children Early years	Low	This SOP is consistent in its approach regardless of age.
Disability	Where the impairment has a substantial and long term adverse effect on the ability of the person to carry out their day to day activities: Sensory Physical Learning Mental health (including cancer, HIV, multiple sclerosis)	Low	This SOP is consistent in its approach regardless of Disability. Additional time may be required to provide information to patients with limited understanding about why they are isolated and the need for staff usage of Personal Protective Equipment for example masks are being worn as they may find this anxiety provoking. For patients with mental health conditions such as depression or anxiety, isolation may prove an additional issue, therefore care needs to be taken to ensure adequate interaction and support is provided.
Sex	Men/Male Women/Female	Low	This SOP is consistent in its approach regardless of patient's sex.
Marriage/Civil Partnership		Low	This SOP is consistent in its approach regardless of marital status.
Pregnancy/ Maternity		Low	This SOP is consistent in its approach regardless of pregnancy/maternal status.

Equality Target Group	Definitions	Equality Impact Score	Evidence to support Equality Impact Score
Race	Colour Nationality Ethnic/national origins	Low	This SOP is consistent in its approach regardless of race. It is acknowledged however that for any patient whose first language is not English, as information needs to be provided and understood, staff will follow the Trust interpretation policy.
Religion or Belief	All religions Including lack of religion or belief and where belief includes any religious or philosophical belief	Low	This SOP is consistent in its approach regardless of religion or belief.
Sexual Orientation	Lesbian Gay men Bisexual	Low	This SOP is consistent in its approach regardless of sexual orientation.
Gender Reassignment	Where people are proposing to undergo, or have undergone a process (or part of a process) for the purpose of reassigning the person's sex by changing physiological or other attribute of sex.	Low	This SOP is consistent in its approach regardless of gender reassignment.

Summary

<p>Please describe the main points/actions arising from your assessment that supports your decision.</p> <p>This SOP is consistent in its approach regardless to any of the target groups identified. The practices / actions recommended in this policy is based upon the potential for cross-infection of a potentially harmful bacteria from one individual to another. Factors for consideration will include microbiological data, extent of symptoms and the potential risk of the spread of infection to others in conjunction with other safety risk factors.</p> <p>Additional time may be required however to provide information to patients with limited understanding or language barriers to ensure adequate interaction and support is provided.</p>	
EIA Reviewer: Debbie Davies	
Date completed: 08/05/24	Signature: D. Davies