

MRSA POLICY

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<p>Controlled document</p> <p>This document has been created following the Royal Devon and Exeter NHS Foundation Trust Policies, Procedures, Protocols, Guidelines and Standards Policy. It should not be altered in any way without the express permission of the author or their representative.</p>	

Please *specify* standard/criterion numbers and tick ✓ other boxes as appropriate

The Strategic Directions 2007-2012 were agreed by the Board of Directors in October 2007 to support the Trust's vision "Respond, Deliver, Enable". The Key Milestones below will ensure there is a shared understanding about what needs to be delivered.

Monitoring Information		Strategic Directions – Key Milestones	
Patient Experience		Waiting	
Assurance Framework		Privacy and Dignity	
Monitor/Finance/Performance		Efficiency and Effectiveness	
Care Quality Commission Outcomes:	8	Delivery of Care Closer to Home	
		Infection Control	✓
NHSLA Risk Management Standards for Acute Trusts			
NHSLA CNST Maternity Clinical Risk Management Standards:			
Other (<i>please specify</i>):			
<p>Note: This policy has been assessed for any equality, diversity or human rights implications</p>			

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1. INTRODUCTION

- 1.1 *Staphylococcus aureus* is a bacterium that can be carried, asymptotically, in the nasopharynx, perineum and skin. *Staphylococcus aureus* can cause a spectrum of illness, ranging from trivial skin infections to life-threatening conditions such as bacteraemia, endocarditis and pneumonia. A small proportion of *Staphylococcus aureus* is resistant to meticillin. Meticillin is an antimicrobial agent used in the laboratory to determine sensitivity to flucloxacillin. Hence, Meticillin Resistant *S. aureus* (MRSA) is a strain of the bacterium that has developed resistance to flucloxacillin, the usual antibiotic used for treatment of staphylococcal infection, and all other related antibiotics e.g. cephalosporins. Other antibiotics that can be used to treat an MRSA infection may be expensive and difficult to administer. Additionally, they often have toxic side effects.

METICILLIN RESISTANCE = FLUCLOXACILLIN RESISTANCE

- 1.2 The aim of the policy is to ensure that arrangements are in place to reduce transmission of Meticillin (formerly known in the UK as methicillin) resistant *Staphylococcus aureus* (MRSA) within healthcare settings and reduce the risk of infection for those who are carriers of the organism. Previous guidance has been updated to reflect national guidance and, in particular, screening requirements. However, this policy continues to take into consideration the prevalence of MRSA in our local healthcare community, current systems of healthcare delivery and the impact of control measures on the patient's physical and psychological wellbeing. Thus, a flexible approach to MRSA control is described whereby the control measures may vary depending on the vulnerability of the patient and the acuity of the healthcare setting.

2. SCOPE OF POLICY

This policy will apply to

- all Trust staff, including bank staff, wherever they are working
- visiting clinical staff and employees of other organisations working on Trust premises
- patients of the Trust and visitors on Trust premises
- all clinical agency /locum staff
- volunteers

3. DUTIES

3.1 Corporate Responsibility

The Trust has a responsibility to promote a high level of compliance with best practice. The Trust will support and encourage compliance by:

- Regarding lapses in compliance with this policy as a serious issue.
- Supporting education at induction for all staff and appropriate updates for staff involved in direct patient contact.
- Ensuring all necessary facilities are provided for the management of patients with MRSA
- Involving the Infection Prevention and Control Team in the planning process for new construction and refurbishment work so that advice can be given on appropriate isolation facilities as emphasised by "Infection Control in the Built Environment" (NHS Estates, 2002) and the Health and

Social Care Act 2008 - Code of Practice on the prevention and control of infections and related guidance (DH 2010).

3.2 Directorate Manager, Clinical Director and Lead Nurse Responsibilities

Each directorate management team has a responsibility to actively encourage compliance with the Policy by all staff groups.

- Ensure that all staff including junior medical staff undertake and complete infection control training and annual updates.
- Provide facilities and equipment for appropriate placement of patients with MRSA.
- Ensure the provision of infection control training and the release of staff to undertake training.
- Ensure that MRSA bacteraemia investigations/RCA's happen in a timely manner, involve the relevant clinical staff and any action plans are completed.
- Ensure that MRSA surveillance and any root cause analysis action plans are discussed at Directorate Governance Group meetings as part of the infection control standing agenda item

3.3 Infection Prevention and Control Team (IPCT) Responsibilities

The IPCT will:

- Provide advice on appropriate placement of patients with MRSA.
- Produce timely feedback on surveillance of MRSA acquisition for wards/units, directorates and Trust.
- Ensure that patients with first time isolates of MRSA have an IC alert placed on PAS.
- Produce reports to the Governance Committee and for the Trust Board on MRSA.
- Ensure that all MRSA bacteraemias are reported on the HPA mandatory enhanced surveillance system (MESS).
- Monitor the use of antimicrobial agents within the Trust and feedback on areas for improvement.
- Support the investigation of and learning from MRSA bacteraemia root cause analyses.

3.4 Microbiology Staff Responsibilities

- Ensure that appropriate tests are available for identification of MRSA.
- Ensure that results are communicated promptly to clinical teams.
- Provide timely advice to clinicians regarding appropriate treatment, where relevant.

3.5 Matron and Other Nursing Staff Responsibilities

- Ensure that relevant patients are screened for MRSA on admission or pre admission.
- Ensure that arrangements are in place to check for an IC alert on PAS/Whiteboard to identify patients with a history of MRSA carriage/infection.
- Ensure the infection control risk assessment form (part of the CID) is completed on admission.

- If no evidence exists to demonstrate three full negative screens following a positive result, an MRSA care plan should be implemented
- Ensure that patients are provided with adequate information, including provision of a relevant information leaflet.
- Administer prescribed treatment for MRSA colonisation or infection.
- Ensure that bed spaces/rooms vacated and associated equipment used by patients with MRSA are terminally cleaned and disinfected prior to new admission.
- Support the investigation of MRSA bacteraemias and learning from root cause analyses events.

3.6 Consultant and Other Medical Staff Responsibilities

- Use antimicrobial agents prudently.
- When antimicrobial use is necessary comply with Trust antimicrobial prescribing policy and guidelines taking into consideration MRSA history.
- Commence treatment of patients with MRSA in accordance with this policy or Microbiology advice.
- Support the investigation of MRSA bacteraemias and learning from root cause analyses events.

3.7 Site Management Team Responsibilities

- Assist ward staff to identify single room accommodation for patients with suspected MRSA where this is relevant.

3.8 Housekeeping Responsibility

- Routinely maintain a clean environment to reduce level of environmental contamination with MRSA.
- Provide terminal cleaning/disinfection of vacated bed spaces/isolation rooms on discharge/transfer of patients with MRSA using products advised by the Infection Prevention and Control Team.

3.9 Individual Responsibility

- All staff have a personal and corporate obligation to comply with best practice in the prevention of infection and comply with this and all other infection control related policies.

4. TRAINING

4.1 All staff working within the Trust receive infection control training. Provision and monitoring of training delivery is outlined in the Infection Control Policy. Where relevant this training will include information on MRSA.

5. DEFINITIONS: COLONISATION VERSUS INFECTION

5.1 Transient carriage occurs when MRSA is present on the hands, arms, face or inside the nose for a short period of time, i.e. a few hours. Staff often become transient carriers when caring for patients with MRSA.

5.2 Colonisation/carriage with MRSA occurs when it is present on, or in, the body for a significant period of time but causes no ill effects.

Patients may be colonised with MRSA, sometimes for several months or years, without it being a problem to them. However, if a colonised patient requires surgery or other invasive procedures, MRSA may be introduced inside the body where it may cause infection.

- 5.3 Infection** with MRSA occurs when the presence of MRSA causes clinical consequences, e.g. inflammation, swelling and pus formation. MRSA infection can occur in the skin and soft tissues, lungs, bones and joints or in the blood stream i.e. MRSA bacteraemia.

6. TRANSMISSION

6.1 Contact:

The main route of transmission in healthcare settings is via contact with the uncleansed hands of healthcare workers. Inadequately decontaminated shared equipment is also a vehicle for transmission.

6.2 Airborne:

This is usually a less important mode of transmission, however MRSA may be transmitted via the airborne route on skin scales but this is usually only a significant risk if the patient has an excessive exfoliating skin condition such as eczema or psoriasis. However, the organism may remain viable in the environment for a long period of time (i.e. months) – thus keeping dust to a minimum is crucial.

7. RISK FACTORS FOR MRSA COLONISATION/CARRIAGE

The following factors make risk of MRSA carriage more likely:

- Past history of MRSA
- Residence in a nursing or care home
- Chronic leg ulcers, pressure sores or other chronic wounds
- Presence of long term indwelling devices e.g. urinary catheter, gastrostomy feeding tube, central line
- Hospitalisation in previous 12 months
- Transfers from another hospital
- Children with special needs who regular attend residential respite care e.g. children at Honeylands, Meadowpark

8. IDENTIFYING MRSA COLONISATION OR INFECTION

8.1 Clinical Isolates

When any type of infection is suspected it is normal practice to obtain a relevant specimen for microscopy, culture and sensitivity. This may identify MRSA as the infecting organism. Subsequent screening of common carriage sites on the same patient may subsequently identify skin or nasal colonisation.

8.2 Screening to Identify MRSA Colonisation (Carriage)

MRSA colonisation can be identified by screening patients prior to or on admission. The rationale for screening is to identify MRSA carriers at the earliest opportunity. Identification will trigger the prescription and administration of topical MRSA decolonisation/suppression protocol, inform the selection of appropriate systemic antimicrobial prophylaxis for surgical

procedures, inform the selection of appropriate empirical antimicrobial treatment in the event of subsequent sepsis and inform decision making regarding appropriate patient placement in hospital.

The following patients will be screened for MRSA:

- all patients with a previous history of MRSA should have a full screen carried out on admission, whether they are elective or emergency admissions.
- all relevant emergency in-patient admissions as part of the admission process (refer section 10).
- elective orthopaedic, gynaecology, and surgical in-patients and orthopaedic day cases as part of the pre-admission process (refer section 11).
- regular attenders - i.e. patient attending regularly for programmes of treatment such as dialysis, chemotherapy (refer section 12)

The screening method involves swabbing body sites where MRSA is likely to be carried. The number of sites screened and the type of swabs used depends on the rationale for screening and the laboratory method.

N.B In the event that OCS is not working, please order an MRSA screen with a paper request form, either a general pathology form or an Elective Preadmission MRSA screening form.

9 SCREENING OF PATIENTS WITH AN MRSA HISTORY

9.1 Full Screening Method

If at any point prior to, on or during admission a patient with a history of MRSA carriage requires screening, make sure that a full screen is obtained

Make sure that the specimens are labelled with the patient's details and sent to the laboratory with a completed general pathology request form or make an electronic request on the order communication system (OCS). The swab labels will be ordered separately.

N.B. Please indicate in the clinical details section on OCS that the patient has a history of MRSA, otherwise perineum swabs are discarded.

If the full screen is taken prior to elective admission or on emergency admission then supplement the methods outlined in sections 10 and 11 with additional swabs as below:

Using charcoal swabs, take the following swabs

- Both anterior nares (use one swab for both nostrils– first moisten the swab with sterile saline)
- Throat
- Perineum (first moisten swab with sterile saline)
- Any wound, ulcer or other area of broken skin/skin lesion (moisten first if lesions are dry)

In addition obtain the following specimens:

- CSU - if catheterised
- Sputum - if expectorating

10. SCREENING OF EMERGENCY ADMISSIONS

10.1 Inclusion Criteria For Emergency Admission Screening

With a small number of exceptions, **all emergency admissions** will be screened as part of the admission process. The following sub sets of patients will not usually be screened:

- Children on Bramble Unit*
- Maternity*
- Patients in ED who are 'admitted for observation' (AFO)
- Gynaecology patients admitted for scan/similar investigations and then discharged immediately (i.e. those with a 'zero day' length of stay)

* If patients in these sub sets have risk factors for MRSA colonisation (refer section 7) they should be screened on admission.

10.2 Screening Method

Make sure the specimens are labelled with the patient's details and sent to the laboratory with a completed general pathology request form or make an electronic request on the order communication system (OCS). The investigation required is MRSA screen Emergency admission

10.2.1 Using charcoal swabs, a screen consists of:

- Both anterior nares (use one swab for both nostrils– first moisten the swab with sterile saline)
- Throat
- Any wound, ulcer or other area of broken skin/skin lesion (moisten first if lesions are dry)

In addition, if the patient has a chronic wound/skin lesion supplement the nose and throat swabs with a wound swab which will be ordered separately on OCS.

11. SCREENING AND MANAGEMENT OF ELECTIVE ADMISSIONS

Identification of MRSA carriage, perioperative decolonisation/suppression therapy and appropriate surgical prophylaxis will reduce the risk of MRSA infection for the carrier and reduce the risk of transmission to other patients. There is no intention to demonstrate clearance of MRSA carriage prior to the admission, therefore identification of MRSA carriage will not result in a delay to the admission, unless the consultant responsible for the patient assesses that this is justified clinically.

11.1 Inclusion Criteria For Preadmission Elective Admission Screening

The following patients will usually be screened prior to elective admission:

- All surgical in-patients
- All orthopaedic day case and in-patients
- All gynaecology in-patients
- All dialysis patients undergoing fistula or graft formation
- Any patient with risk factors for MRSA carriage who will undergo a surgical procedure (refer section 7)

These elective patients are referred to as relevant patients in the care pathways below.

11.2 Screening Method

Make sure the swabs are labelled with the patient's details and sent to the laboratory with a completed **Elective Preadmission MRSA screening** request form or make an electronic request on the order communication system (OCS).

11.2.1 Screening, for preadmission purposes, consists of:

- Both anterior nares (one swab will do for both – first moisten the swab with sterile saline)
- Throat
- Any wound, ulcer or other area of broken skin/skin lesion

In addition, if the patient has a chronic wound/skin lesion supplement the nose and throat swabs with a wound swab which will be ordered separately on OCS.

11.3 Pathway for Relevant Elective Admissions

11.3.1 Patient is referred to and seen in Outpatients Department

11.3.2 Consultant decides that an elective admission is required and indicates this using the outpatient 'Outcome Slip' (already in use)

11.3.3 Outpatient staff will screen the patient. This is recorded in the clinical record.

11.3.4 Patients will be provided with an information leaflet which explains the rationale for screening, the implications of both a 'positive' and 'not detected' result and the MRSA decolonisation/suppression protocol they will undergo if found to be MRSA positive.

11.3.5 Positive results are returned to relevant Consultant and the Infection Prevention and Control (IPC) Dept. The IPC secretary will enter an infection control alert on PAS which then automatically appears on e-whiteboard in the 'planned' column prior to admission and on the in-patient section once admitted.

11.3.6 IPC Team secretary will generate a letter to the patient's GP (cc Consultant, patient and medical records) advising that the GP should arrange for the patient to receive topical decolonisation/suppression treatment which should commence 2 days prior to planned date of admission and continue for 5 days (refer section 12).

11.3.7 'Not detected' results are available from the laboratory system/OCS.

11.3.8 Pre admission assessment clinic practitioners can check the screen has been completed and check the results if the patient attends for pre admission assessment. This can be achieved by:

- Asking the patient
- Checking the clinical record
- Referring to the 'Planned' list on the e-whiteboard which also lists results

- Checking on OrderCom or Integrated Pathology System (IPS)

If not already screened or any doubt about screening having been undertaken, it should be undertaken at this stage.

- 11.3.9 For those not seen for pre admission assessment the admitting unit/ward will check the MRSA status on admission and, for all MRSA positive patients, will check that the patient has commenced the decolonisation/suppression protocol.
- 11.3.10 In the event of a failure to screen prior to admission, screening will take place on admission and consideration given to starting decolonisation/suppression protocol. The decolonisation treatment will be stopped if MRSA is not detected. At least one dose of 2% mupirocin should be provided prior to surgery/invasive procedure.
- 11.3.11 If MRSA positive patients have not commenced decolonisation prior to admission, a 5 day course will be commenced on admission with at least one dose of 2% mupirocin provided prior to surgery/pacemaker insertion.
- 11.3.12 Patients identified prior to admission as MRSA positive will receive appropriate systemic antimicrobial prophylaxis, if relevant to their procedure.

12. SCREENING AND MANAGEMENT OF REGULAR ATTENDERS

12.1 Screening Method

Screening consists of:

- Both anterior nares (one swab will do for both – first moisten the swab with sterile saline)
- Throat
- Any wound, ulcer or other area of broken skin/skin lesion

Make sure the swabs are labelled with the patient's details and sent to the laboratory with a completed **Elective Preadmission MRSA screening** request form or make an electronic request on the order communication system (OCS).

12.2 Pathway for Oncology Day Case Patients Started on a Programme of Chemotherapy or Supportive Therapies

- 12.2.1 Preadmission screening will be undertaken in the outpatient setting when the decision to treat has been made. This will be recorded in the clinical record. Patients will be provided with an information leaflet which explains the rationale for screening and the implications of both a 'positive' and 'not detected' result and the MRSA decolonisation/suppression protocol they will undergo if found to be MRSA positive.
- 12.2.2 In the event of a positive result the infection control secretary will enter an infection control alert on PAS which then automatically appears on the e-whiteboard should the patient be admitted as an in-patient.
- 12.2.3 Cherrybrook staff will check the results of the MRSA screen on OCS or Pathology system on the first day of treatment. If there is no evidence that the patient has been screened previously, a screen will be undertaken at this stage.

12.2.4 Patients identified as MRSA positive will be provided with decolonisation/suppression products on Cherrybrook (small supplies will be kept on the Unit for this purpose).

12.2.5 Patients receiving ongoing treatment will need to be regularly screened over the course of their treatment. The frequency of screening will be approximately monthly but will be determined at a local level to fit in with attendance and treatment programmes. This will be recorded in the clinical record.

12.3 Pathway for Haematology Day Case Patients Receiving Chemotherapy, Blood Transfusion or Other Supportive Therapies

12.3.1 These patients will be screened on the first day of their programme of treatment, in the relevant treatment unit. This will be recorded in the clinical record. Patients will be provided with an information leaflet which explains the rationale for screening and the implications of both a 'positive' and 'not detected' result and the MRSA decolonisation/suppression protocol they will undergo if found to be MRSA positive.

12.3.2 In the event of a positive result the infection control secretary will enter an infection control alert on PAS which then automatically appears on the e-whiteboard should the patient be admitted as an in-patient.

12.3.3 Staff will check the results of the MRSA screen on OCS or Pathology system on the subsequent attendance.

12.3.4 Patients identified as MRSA positive will be provided with decolonisation/suppression products on Yarty Day case (small supplies will be kept on the Unit for this purpose).

12.3.5 All patients receiving ongoing treatment, regardless of the result of the initial screen, will need to be regularly screened over the course of their treatment. The frequency of screening will be approximately monthly but will be determined at a local level to fit in with attendance and treatment programmes. This will be recorded in the clinical record.

12.4 Pathway for Haemodialysis Day Case Patients

12.4.1 These patients will be screened at their first dialysis session. This will be recorded in the clinical record. Patients will be provided with an information leaflet which explains the rationale for screening and the implications of both a 'positive' and 'not detected' result and the MRSA decolonisation/suppression protocol they will undergo if found to be MRSA positive.

12.4.2 All patients receiving haemodialysis, regardless of the result of their initial screen, will be re screened on a monthly basis using the special laboratory form designed for this purpose. This will be recorded in the clinical record.

12.4.3 Positive results are returned to the relevant Consultant and the Infection Control Dept. The infection control secretary will enter an infection control alert on PAS which then automatically appears on the e-whiteboard.

12.4.4 Patients identified as MRSA positive will be provided with decolonisation/suppression products on the unit, when attending for their next dialysis session.

12.5 Central Venous Catheter Insertion For Dialysis

- 12.5.1 These patients will be screened on admission but prior to line insertion. This will be recorded in the clinical record. Patients will be provided with an information leaflet which explains the rationale for screening and the implications of both a 'positive' and 'not detected' result and the MRSA decolonisation/suppression protocol they will undergo if found to be MRSA positive.
- 12.5.2 All patients will receive nasal 2% mupirocin after the screen is obtained and prior to line insertion.
- 12.5.3 In the event of a positive result the infection control secretary will enter an infection control alert on PAS which then automatically appears on the e-whiteboard should the patient be admitted as an in-patient.
- 12.5.4 Patients identified as MRSA positive will be provided with decolonisation/suppression products when they next attend for dialysis.

13. TREATMENT

13.1 Systemic Antimicrobial Therapy

If the patient is clinically infected and not simply colonised, the duty medical microbiologist can be consulted for advice on appropriate systemic antibiotic therapy. Patients will also require topical treatment as described below.

13.2 Topical Treatment of Adults and Children

If the patient is only colonised, or as an adjunct to systemic antimicrobial therapy, topical treatment will be required. Eradication of MRSA is often not achieved particularly for the types of patients listed below but topical treatment is still useful to suppress the growth of MRSA and thus, reduce the risk of endogenous infection and the risk of cross infection to others.

- Patients with long term indwelling devices (for example, urinary catheters and PEG feeding tubes)
- Patients with chronic wounds, such as pressure sores or leg ulcers
- Patients with throat carriage
- Patients who are sputum positive and still expectorating*
- Patients with large or deep unhealed wounds*

*Once sputum production has ceased (or reduced to patient's norm) or wound has improved, successful decolonisation may be achieved.

The 5-day decolonisation protocol consists of all or some of the following products, depending on colonised sites:

- **4% Chlorhexidine Skin Cleanser** for bathing/showering/washing for five days (for patients with nasal and/or skin carriage). Use as liquid soap with a disposable wipe. Do not use patient's flannel. If the patient's condition allows, also use to wash hair. Specialist dermatology advice should be sought prior to decolonising patients with skin disorders, e.g. eczema, psoriasis.

- **Mupirocin 2% (Bactroban) Nasal Ointment** applied to each nostril three times daily (for patients with nasal carriage and /or skin carriage). Apply using a cotton bud or gloved fingertip.
- **Mupirocin 2% (Bactroban) cream** applied to small superficial wounds three times a day. If wounds are healing despite the presence of MRSA, it will probably be more harmful to disturb the wound three times a day to apply mupirocin – in which case normal wound care should continue. Bactroban is not appropriate for large or complex wounds.

Other wound products can be used that may help suppress MRSA growth e.g.

- **Dressings containing povidone-iodine** e.g. Inadine or Iodosorb, applied daily to colonised wounds.
- **Silver dressings e.g.** Acticoat absorbent, Silvercell

N.B. It is important that the patient's bed linen and towels are changed each day in hospital following antiseptic bathing/washing/showering and as frequently as possible at home.

The decolonisation protocol is stopped for 2 days, at the end of which, if the patient is in hospital, the patient is re-screened as described in Section 9.2.1. Three consecutive negative screens are required for a previously MRSA positive patient to be considered MRSA negative. In the community setting, the need to rescreen is not usually necessary but may be undertaken at the discretion of the GP/community nurse taking into account the needs of the patient.

No more than two attempts will be made to achieve decolonisation in one episode of hospital care. If screens are positive after two attempts at decolonisation, the patient will be considered a chronic carrier.

13.3 Topical Treatment Of Neonates

The decision to decolonise will depend on the age and condition of the neonate. Octenisan may be used for skin cleansing. Chlorhexidine powder (CX Powder) can be applied to umbilicus, buttocks, perineum and flexures at every nappy change. Use of 2% mupirocin may be considered. However, the decision to apply some or all of these products must be made on a case by case basis by the neonatologist.

13.4. Clearance Screen Following Treatment

Clearance screening is often not indicated, particularly if the patient has been discharged from hospital. However, if clearance screening is indicated, use the full screening method detailed in section 9.2. Three consecutive negative screens **taken, as a minimum, at weekly intervals** need to be obtained before topical treatment can be considered to have been effective. Even if MRSA is not detected on three consecutive screens, the patient may recolonise over a longer period and therefore is always considered a high risk for MRSA carriage on subsequent admissions to hospitals.

First screen: Obtain swabs/specimens a minimum of 48 hours after the decolonisation regimen (and any oral/IV antibiotics) has ceased.

Second screen: If 1st screen results are negative then obtain second screen.

Third Screen: If 2nd screen results are negative then obtain third screen.

There are some occasions when this process may be expedited by obtaining three screens over a shorter period of time - but discuss with the Infection Prevention and Control Team first.

14. PATIENT/SERVICE USER INFORMATION

It is vital that patients/service users are provided with accurate information about MRSA and what it means for them and their family. Many will have heard about MRSA through the media and may be very worried. Patients/service users should also be given an explanation of how MRSA is transmitted, the rationale for isolation (if applicable) and why there are variations in the control measures required depending on the healthcare setting and level of contact.

Following the verbal explanation an appropriate leaflet must be offered to the patient/family. Four leaflets are available from the Photographics Department at the Royal Devon and Exeter Hospital:

- 1) A Guide to MRSA (Ref. DG 09 002 001)
- 2) MRSA screening - information for elective patients (Ref. No. DG 09 001 001)
- 3) MRSA screening (emergency admissions) - information for patients (Ref. DG 10 013 001)
- 4) MRSA screening - information for renal patients (Ref DG 09 005 001)

N.B. If the patient/family has further questions that cannot be addressed by the clinical team, the Infection Prevention and Control Team should be contacted.

15. CONTROL MEASURES

15.1 Standard Precautions

Strict adherence to standard infection control precautions and aseptic procedures is necessary to reduce the risk of transmission of MRSA to other patients and to vulnerable body sites on the same patient, in particular:

- adherence to the '5 moments' for hand hygiene (refer hand hygiene policy).
- appropriate use of personal protective equipment e.g. gloves and aprons. Gloves must be worn for contact with colonised/infected body sites e.g. wounds, PEG sites. Aprons must be worn to protect clothing for bed making and direct patient care.
- maintaining a clean environment to minimise dust accumulation.
- decontaminating shared equipment between patient uses.
- handling used linen carefully to reduce dispersal of skin squames.

15.2 Source Isolation

Source isolation is preferable or necessary in some settings. The extent of the measures necessary to control MRSA depends on a variety of factors including:

- the type of ward.

- the facilities available for patient isolation
- ward design
- whether affected patients are likely to be heavy shedders of MRSA, e.g. those with burns or infected eczema
- vulnerability of other patients in the same area to develop invasive infection, e.g. surgical patients may be more vulnerable than general medical patients who, in turn, are more vulnerable than those in rehabilitation settings.
- the patient's other physical and psychological needs, e.g. the need to mobilise and socialise in a rehabilitation ward or the need for close observation in a high dependency setting, both of which may be hindered by isolation in a single room.
- whether MRSA is endemic within the specialty

15.3 Acute In-patient Wards And Units

When a patient is known to be MRSA positive (or has a history of MRSA carriage but current status is as yet unknown) the following precautions should be taken:

- 15.3.1 Unless clinically contraindicated, commence topical decolonisation therapy (refer section 13) as this will minimise the risk of endogenous infection and transmission to other patients. This can be stopped if admission screens for those with a history of MRSA carriage subsequently transpire to be clear.
- 15.3.2 Wherever possible, place the patient in a single room and initiate source isolation precautions.
- 15.3.3 Single room isolation is more important in specialties where acquisition of MRSA is more likely to have serious consequences e.g. surgical specialties (in particular, orthopaedics, vascular surgery, breast surgery, major plastic surgery), ITU, the neonatal unit, Creedy ward.
- 15.3.4 Single room isolation is also important in wards/units where MRSA colonisation is a less common phenomenon within the patient group, to ensure that it remains so, e.g. neonatal unit, antenatal/postnatal ward, Wynard ward and Bramble Unit.
- 15.3.5 If the number of patients to be isolated exceeds the number of single rooms available you should do the following (with the assistance of the Infection Prevention and Control Team, if required):
- Review the existing patients in single rooms and decide if they need to be there. Move a patient out if possible.
 - If movement is not possible, consider making a cohort of patients with MRSA in a bay or double side-room
 - If neither of the above is possible, contact the site management team to determine if a single room is available on another ward.
 - If a single room is not available on another ward or it would be detrimental to move the patient to another ward, prioritise who should have a single room by assessing cross infection risks.

Examples:

- Transmission of MRSA from a patient with an exfoliating skin condition is extremely likely and therefore a carrier with such a condition takes priority for a single room over others.
- A patient with MRSA in multiple sites takes priority over a patient with nasal carriage only.
- Patients who are being decolonised (who do not have an exfoliating skin condition) are less of a risk than those who cannot be decolonised.

15.3.6 Having decided which patient will remain within the bay, assess the vulnerability of the other patients. Move particularly vulnerable patients, e.g. patients with central lines or open wounds, to another bay or at least as far away as possible.

15.3.7 Forewarn the patient remaining in the bay that s/he may be moved into a single room if one becomes available.

15.3.8 Ensure that alcohol hand rub and protective clothing is readily available to facilitate compliance with standard precautions.

15.3.9 Patients in high risk areas identified in 14.3.3 and 14.3.4 will usually stay in the single room for the duration of their hospital admission or until they have completed decolonisation and had three consecutive negative screens. Exceptions must be discussed with the Infection Prevention and Control Team.

15.4 Mardon

Isolation is not necessary. However, all open wounds should be covered with a dressing. Patients with MRSA should avoid sharing bedrooms with others who have an open wound or indwelling device, e.g. catheter, gastrostomy tube. The patient should be allowed to use the day room, dining room and other communal areas as any other patient would. Strict adherence to standard precautions is essential.

15.5 Theatres

15.5.1 MRSA positive patients requiring surgery will need prophylactic topical decolonisation and, if relevant to the procedure, appropriate systemic antibiotic prophylaxis.

15.5.2 Theatres must be informed in advance of the patient's MRSA status.

15.5.3 To allow for thorough cleaning of surfaces within the operating room it is preferable to put the 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.

15.5.4 Theatre surfaces should be cleaned using a combined detergent and chlorine releasing agent e.g. Chlorclean 1000ppm. There is no need to let the theatre 'rest' as an adequate number of air changes will have occurred within 15 minutes of the MRSA +ve patient being removed from the operating

theatre. Therefore, once cleaning is complete, the theatre can be used immediately.

15.5.5 Transporting a patient with MRSA to/from theatres in a wheelchair, trolley or bed is a low risk activity and gloves and aprons are not required. However, hands must be cleaned with alcohol hand rub after such contact.

15.5.6 The theatre orderly should wear gloves and apron if having more significant patient contact i.e. holding the patient against their body when moving them onto a trolley or into a wheelchair.

15.5.7 It is preferable to avoid taking the bed to theatre, however if this cannot be avoided clean bed linen must be used and the bed frame must be dust free.

15.6 Recovery

Patients can be nursed in Recovery but the practitioner caring for the patient should not simultaneously attend other patients. Gloves and aprons should be worn by the practitioner. The trolley and trolley space in recovery must be cleaned thoroughly using a combined detergent and chlorine releasing agent e.g. Chlorclean 1000ppm following the patients return to the ward. There is no need to change curtains unless the patient has remained in recovery for several hours (e.g. an overflow patient when ITU is full) at which point the terminal cleaning procedure for an isolation room should be followed (refer Source Isolation Policy).

15.7. Surgical Day Case Units/Day Surgery Units

If a single room is available this should be used. If not, the patient can be managed on the main unit, pre and post procedure, with strict adherence to standard precautions, in particular hand hygiene. To allow for thorough cleaning after the case, it is preferable, but not vital, to put the patient at the end of the list. Surfaces should be cleaned using a combined detergent and chlorine releasing agent e.g. Chlorclean 1000ppm. The patient can be recovered in Recovery but the nurse caring for the patient should not simultaneously attend other patients.

15.8 Outpatient Departments

Strict adherence to standard precautions is required.

In dressing clinics, wounds should be covered with a dressing whilst waiting in communal areas. The number of staff attending to the patient should be kept to a minimum and there must be strict attention to hand hygiene. There is no need to remove equipment from the consulting rooms. Surfaces that the patient has had direct contact with e.g. examination couch, should be decontaminated after use, using a combined detergent and chlorine releasing agent e.g. Chlorclean 1000ppm.

15.9 Dental Clinics/Dental Access Centre

In accordance with the British Dental Association infection control guidance, no additional precautions are required.

16. MAINTAINING STANDARDS OF CARE FOR PATIENTS WITH MRSA

It is important to remember that control measures should not compromise standards of care or the need for urgent specialist care. The patient's overall needs must take precedence.

16.1 Clinical Investigations

Patients can undergo investigations in all departments, provided the department has been informed in advance. It is recommended that patients are dealt with promptly to minimise delay in returning to the ward. Standard infection control precautions should be practised by staff within the department. Equipment should be decontaminated, in accordance with the decontamination policy, before use on the next patient.

16.2 Transfers to Other wards

Patients can be transferred from one ward to another ward or unit, if clinical need dictates. The receiving area must be informed in advance of the MRSA status to ensure that the appropriate facilities are available and the required precautions are applied. Movement for non clinical reasons, e.g. outlying MRSA +ve medical patients to surgical wards to increase bed availability in medicine, should be avoided.

16.3 Mobilisation

If mobilisation is required when a patient is isolated in a single room, the patient can leave the room to allow mobilisation in an area away from the ward, e.g. main corridor. This does not mean that the patient can wander freely around the ward where close contact with other patients is inevitable. The distinction must be explained carefully to patients who may find it confusing.

16.4 Personal Hygiene

If *en suite* facilities are not available, patients may use communal facilities but these must be cleaned thoroughly after use. If patients are leaving an isolation room for this purpose, they must be advised this does not mean they can move freely around the ward.

16.5 Physiotherapy/Occupational Therapy

Please refer to Appendix 2.

16.5.1 Use of cars for home visits - Refer Section 20.

16.6 Schooling in acute hospital

Children may go to the schoolroom as long as they do not have an exfoliating skin condition. Any wounds must be covered with an occlusive dressing as should the wounds of other children. Children with MRSA positive sputum who are expectorating should be managed in the separate area within the schoolroom.

17. VISITORS IN HOSPITAL

It is unnecessary for the patient's relatives and friends to wear protective clothing when visiting in hospital as they do not subsequently deliver care to other patients. As long as the visitors are healthy, MRSA is unlikely to pose a risk to them. However, they should be advised of the importance of hand hygiene.

18. ROUTINE AND TERMINAL CLEANING

It is very important to minimise dust through frequent and thorough cleaning, whether the patient is nursed in a single room or in an open ward area. Frequency of routine cleaning may need to be increased, particularly if the patient has an exfoliating skin condition. Isolation rooms and bed spaces in bays must be terminally cleaned on discharge in accordance with the Source Isolation Policy and/or the terminal cleaning procedure.

19. LAST OFFICES

No special precautions are required.

20. PORTERING OF PATIENTS WITHIN THE HOSPITAL

Porters should cleanse their hands using either alcohol hand gel or soap and water after contact with the patient but are NOT required to wear gloves and/or aprons to push trolleys or wheelchairs. Wheelchairs/trolleys must be cleaned with detergent wipes after use.

21. TRANSPORTING BY AMBULANCE OR CAR

If their clinical condition allows, patients with MRSA can be transported in an ambulance with other patients as long as any wounds are covered with an occlusive dressing and the ambulance crew maintains standard infection control precautions.

Likewise, outpatients can be transported in cars without concern for the driver or subsequent passengers, as long as wounds are covered.

22. DISCHARGE OF MRSA POSITIVE PATIENTS

Whilst treatment of MRSA infection may result in a prolonged hospital stay, the discharge of patients colonised with MRSA should not be delayed. However, if the decolonisation protocol is to be started/continued at home, it may be necessary to arrange for community nursing input to achieve this effectively. MRSA positive patients can be transferred from the ward to communal waiting areas whilst awaiting transport home. MRSA is not a reason for patients to be refused admission to a nursing or residential home.

23 MRSA AND STAFF

MRSA rarely causes infection in healthy people. Transmission of MRSA, from patient to staff or vice versa, may occasionally occur via close contact. However, staff usually have transient carriage only and, by the time they return to work after the previous shift, no longer carry MRSA. Colonised or infected staff rarely transmit infection to patients.

23.1 Staff Screening

Staff screening is rarely indicated and will only be initiated by the Infection Prevention and Control Team in conjunction with the Occupational Health Department. When screening is required it must be undertaken at the beginning of a shift to reduce the risk of transient carriage being identified. Swabs will be taken by an Occupational Health Advisor (or in exceptional circumstances by the member of staff's GP).

The following sites need to be swabbed:

- Nose
- Throat
- Perineum
- Skin lesions/wounds

Staff found to be positive on the initial screening should have another full screen undertaken including the sites identified as MRSA positive (to exclude transient carriage).

23.2 Exclusion from work

23.2.1 Infected lesions/wounds

Staff should be examined for infected lesions and, if present, should be removed from duty if working in a high risk area eg. theatres, ITU, neonatal unit, maternity, surgical wards, orthopaedics. In other areas advice should be sought from the infection prevention and control team.

23.2.2 Skin carriage (e.g. colonised skin lesion or perineum)

Skin carriers should be treated with 4% chlorhexidine gluconate (Hibiscrub) and mupirocin 2% (Bactroban Nasal Ointment) as recommended for patients. If an alternative skin cleanser is required the infection control team will advise a suitable product. If appropriate skin lesions or small wounds can be treated with mupirocin 2% cream. (Mupirocin Cream).

In high risk areas skin carriers should be excluded from work or given alternative duties that do not involve contact with patients until they have been successfully decolonised and have had three consecutive negative screens.

In other clinical areas, staff who are skin carriers can work whilst they undertake the decolonisation protocol unless they have an exfoliating skin condition.

23.2.3 Nasal and/or throat carriage only

Nasal carriers should be treated with mupirocin 2% (Bactroban nasal ointment) and 4% chlorhexidine gluconate (Hibiscrub) as recommended for patients. If an alternative skin cleanser is required the infection prevention and control team will advise on a suitable product.

In high risk areas they should be excluded from work for 48 hours from the start of mupirocin treatment or given alternative duties that do not involve contact with patients.

In other clinical areas, staff carriers can continue working whilst on mupirocin treatment if the strain is susceptible.

23.3 Clearance

Three negative screens taken at weekly intervals will indicate clearance of MRSA. Screens must be obtained by the Occupational Health Nurse or GP, with the agreement of the Occupational Health Department.

Difficulties achieving clearance must be discussed with the Infection Prevention and Control Team/Microbiologist.

23.4 MRSA and Pregnant Staff

There is no reason to exclude pregnant or breast feeding staff from caring for patients with MRSA.

24. MONITORING THE EFFECTIVENESS OF THE POLICY

Compliance with this policy will be audited as follows:

- Antimicrobial prescribing will be audited in accordance with the Antimicrobial Policy.
- Compliance with MRSA screening of elective and emergency admissions will be monitored through the quarterly review process.
- A Trustwide annual audit of patient placement, isolation facilities and infection risk assessment will include patients with MRSA.
- Hand hygiene will be audited in accordance with the Hand hygiene Policy.
- Environmental and patient equipment cleaning will be audited as part of the routine Cleanliness Standards audits.

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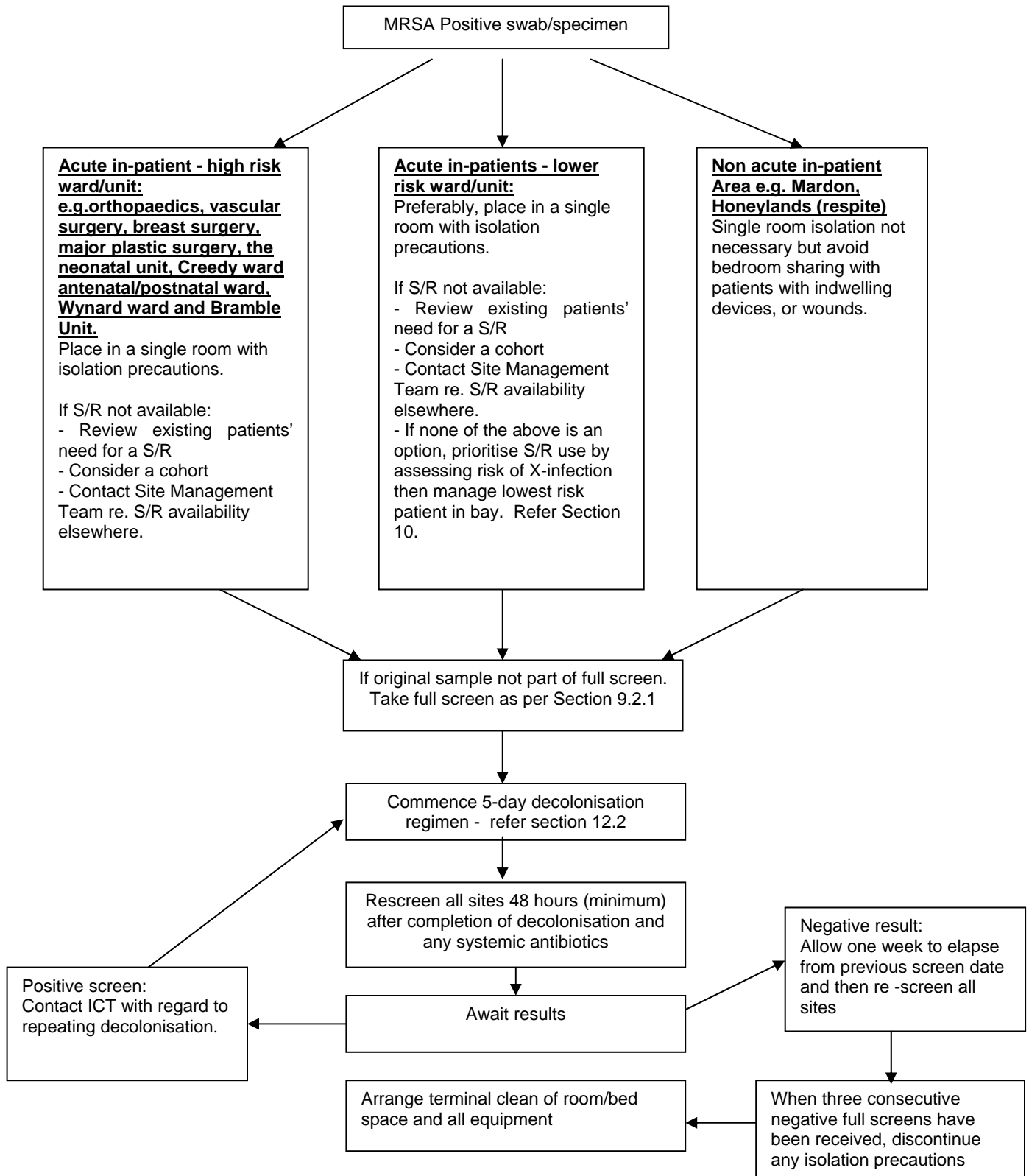
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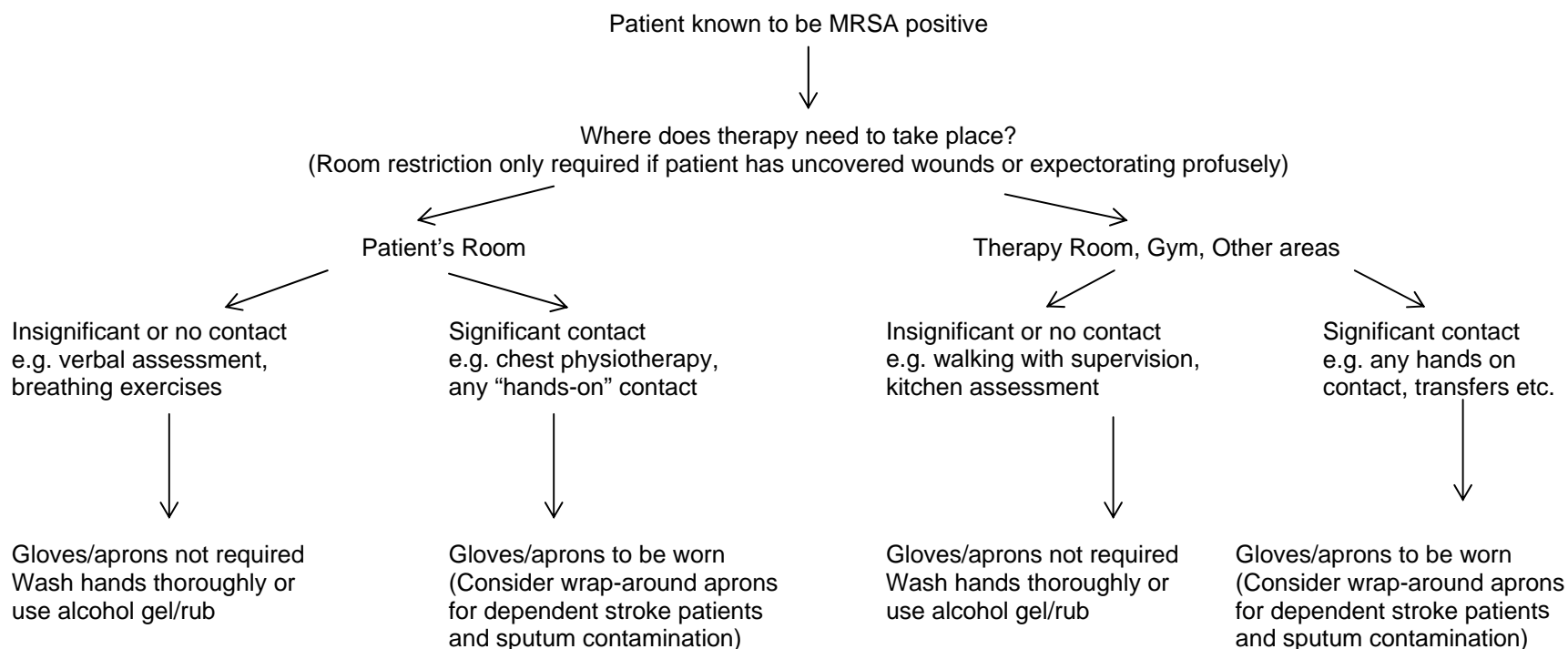
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MANAGEMENT OF A IN-PATIENT COLONISED OR INFECTED WITH MRSA



PHYSIOTHERAPY AND OCCUPATIONAL THERAPY GUIDANCE



N.B. IF KNEELING ON THE BED TO GIVE THERAPY, PLACE CLEAN TOWEL OR CLEAN INCONTINENCE SHEET ONTO THE SHEET TO AVOID CONTAMINATION OF UNIFORM