UNIQUE IDENTIFIER NO: C-22-2006
Review Date: March 2024
Review Lead: Lead Infection, Prevention and Control Nurse

Calderdale and Huddersfield NHS Foundation Trust

Section T

Meticillin-resistant *Staphylococcus aureus* (MRSA) *&* *PVL Staphylococcus aureus* (PVL-SA) *Policy*

Version 11

Important: This document can only be considered valid when viewed on the Trust's Intranet. If this document has been printed or saved to another location, you must check that the version number on your copy matches that of the document online.

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Document Version Control	
Version 11	The policy has been reviewed and a minor change has been made: 18 week period of validity for elective screening added to reflect current agreement. Removal of link to paper care plans which are no longer used within The Trust. All hyperlinks have also been checked.
Version 10	The policy has been adjusted to reflect changes due to EPR. Additional information about the Post Infection Review has been added The PVL-SA content has been developed to provide more comprehensive information and guidance. A flow chart has been added for PVL-SA contacts A visual guide for decolonisation has been provided.
Version 9	Links have been added to the patient information leaflets for MRSA / MSSA; a link has been added for easy access to the antibiotic prescribing guidelines (p7). An appendix has been added to clarify the MRSA screening process.
Version 8	The title of the policy has been changed as the policy now covers MRSA and PVL-SA (Panton-Valentine Leukocidin Staphylococcus aureus).
Version 7	This policy has been reviewed and now focuses on the management and control of MRSA and PVL-SA. Other resistant organisms are now covered in Section J.

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Appendices

1. Introduction

The management of patients with Meticillin-resistant *Staphylococcus aureus* [MRSA] *and Panton-Valentine Leukocidin Staphylococcus aureus* (PVL-SA) will be covered in this policy.

1.1 Key points:

MRSA

- What it is
- Who, how and when to screen (including staff)
- Treatment and management of a patient with MRSA
- Post infection review process.

PVL-SA

- What it is
- When to suspect a PVL-SA infection
- Who, how and when to screen (including staff)
- Treatment & management of a patient with PVL-SA
- Contact tracing

2. Purpose

The purpose of the policy is to provide information for staff so that they have an understanding of the above organisms and are aware of the appropriate care and precautions that should be taken when caring for patients who may be colonised or have an infection caused by MRSA or PVL-SA.

3. Definitions

Anti-Microbial Resistance Antimicrobial resistance happens when microorganisms (such as bacteria, fungi, viruses, and parasites) change when they are exposed to antimicrobial drugs such as antibiotics, antifungals, antivirals. As a result, the medicines become ineffective and infections persist in the body, increasing the risk of spread to others (WHO 2017).

Colonisation is the presence of micro-organisms on or in the body without causing tissue damage e.g. a chronic leg ulcer will always have bacteria present, but these are only colonising the wound if there are no signs of infection.

Health Care Associated Infection (HCAI) The term HCAI covers a wide range of infections and cover any infection contracted:

- as a direct result of treatment in, or contact with, a health or social care setting
- as a direct result of healthcare delivery in the community

HCAIs pose a serious risk to patients, clients, staff and visitors to health and social care premises. They can incur significant costs for the NHS and others, and cause significant morbidity and mortality for those infected.

Meticillin-resistant Staphylococcus aureus (MRSA): some strains of *Staphylococcus aureus* are resistant to some antibiotics i.e. Cefoxitin / Fluclocaxillin; these strains are referred to as MRSA where resistance to Cefoxitin / Flucloxacillin is identified.

Panton-Valentine Leukocidin (PVL) is a cytotoxin that can destroy white blood cells and cause extensive tissue necrosis and severe infection. It is associated with increased virulence in certain strains of Staphylococcus aureus.

Source isolation is the physical separation of one patient from another in order to prevent the transmission of potentially harmful micro-organisms / conditions.

Staphylococcus aureus is a common bacterium with which many people are colonised.

4. Duties (Roles and Responsibilities)

The Chief Executive is responsible for ensuring that there are effective infection prevention and control (IPC) arrangements in the Trust.

Matrons / Ward / Dept. Managers are responsible for ensuring that this policy is implemented and adhered to in their areas.

The Infection Prevention & Control Team (IPCT) are responsible for undertaking surveillance of multi resistant organisms and in conjunction with the Microbiologist, give expert IPC advice regarding such cases. IPC will initiate investigation of such infection and will inform the ICD and DIPC.

All staff that have patient contact are required to adhere to this Policy.

5. Scope

This policy applies to all health care workers employed by CHFT and should be used in conjunction with other relevant policies and guidelines, including:

- Standard precautions - Infection Control Policies, Section C
- Major Outbreak of Infection Policy, Section E
- Decontamination and Disinfection Policy, Section F
- Hand hygiene policy - Infection Control Policies, Section H
- Isolation policy - Infection Control Policies, Section K
- Bed management and movement of patients Policy - Infection Control Policies, Section W

- Antibiotic guidelines – Medicines Code

6. Antimicrobial Prescribing

The decision to prescribe an antimicrobial should always be clinically justified and the reason recorded in the patient's medical records and on the patient's medication chart.
The Trust's Antibiotic Guidelines must be followed, accessed via:

http://intranet.cht.nhs.uk/chft-documentation/view-category.php?catID=79

Individual patient and drug-specific factors to consider in all cases include:

- Previous antimicrobial history
- Previous infection with multi-resistant organisms
- Allergies
- Availability of and absorption by oral route

Principles of good antimicrobial prescribing are available via:

http://intranet.cht.nhs.uk/chft-documentation/view-category.php?catID=79

NB: Flucloxacillin and other Penicillin / Beta-lactams have no activity against MRSA

7. What is Meticillin-resistant *Staphylococcus aureus* (MRSA)?

Staphylococcus aureus (SA) is a common bacterium with which many people are colonised. Some strains of SA are resistant to some antibiotics including Flucloxacillin and all Cephalosporins; these strains are referred to as MRSA. Both MRSA and Meticillin-sensitive SA (MSSA) can colonise a person's skin as well as cause a range of infections from localised skin infections to life threatening sepsis.

MRSA is not a significant risk to health care workers (HCW's) but can cause serious infection in vulnerable patients and is a common cause of HCAIs.

People who are at increased risk of becoming **colonised** with MRSA include those who have had frequent episodes of healthcare interventions and those with breaches in their external defence's such as chronic wounds, eczema, invasive devices (gastrostomy, tracheostomy, urethral or suprapubic catheter).

People who are more at risk of **infection** with MRSA are those who are colonised at a clinical site (as above), those undergoing invasive procedures and those with impaired immunity e.g. the immunocompromised, diabetic, frail, those with chronic disease and patients with a poor nutritional status.

8. MRSA Screening

The DH in England introduced mandatory MRSA screening of all elective and emergency admissions from April 2009 and December 2010 respectively. DH guidance (2014) has since streamlined this approach to screening. CHFT continue to screen patients for MRSA as follows:

8.1 Emergency Screens:

- All emergency admissions (including high risk obstetric and paediatric patients as indicated below)
- All high obstetric patients with a known history of MRSA or those undergoing emergency or elective caesarean section
- All high-risk paediatric patients include those with a history of MRSA, those awaiting elective orthopaedic surgery, have chronic devices or multi healthcare interventions

8.2 Elective screens:

Day cases other than those listed as an exemption below will require screening. The definition of a day case has been assessed as a patient admitted to a ward or the Day Case Unit for their procedure. Patients attending a clinic for a procedure will not require screening unless they have a previous history of MRSA (e.g. Oncology day attenders).

Exemptions to the screening programme have been identified by the DH (Gateway ref: 10324) as follows:

- Day case ophthalmology
- Day case dental
- Day case endoscopy
- Minor dermatology procedures
- Children and paediatrics (up to and including 16 years of age) unless in a high-risk group
- Maternity / obstetric unless in a high-risk group

Elective MRSA screen results remain valid for a period of 18 weeks unless there is an episode of inpatient stay where the patient will be required to be re-screened. If a patient has an elective screen and it is MRSA positive, they will require a course of MRSA colonisation suppression treatment and this can be prescribed from the ward/department undertaking the screen (via PGD). This should commence prior to the planned surgery/procedure and should continue up to and including the day of surgery. A positive screen should not delay treatment or surgery.

If surgery is cancelled following the colonisation suppression treatment, the suppression treatment should be repeated without re-screening prior to further surgery.

8.3 Staff screens:

If a member of staff is screened as an emergency/elective admission or through the Occupational Health Department (OHD) and found to be positive:

- The staff member should be referred to the OHD and S/he assessed for the presence of possible MRSA-disseminating lesions (e.g. wounds, eczematous lesions etc.). If present, these will be investigated and treated accordingly

- Assuming no such lesions, the staff member will be prescribed a 5-day course of the currently recommended MRSA colonisation suppression treatment and the need to observe good standards of hand hygiene will be reiterated. There is no requirement for the staff member to take time off work or to be re-screened for MRSA following completion of the course of suppression treatment

- The timing of decolonisation should follow that of the relevant treatment pathway (e.g. if the staff has planned elective surgery, decolonisation should be timed to end on the day of surgery)

- The IPCT should be informed of such a staff member so that recent MRSA data from his / her clinical area can be checked to see if there may be associated MRSA cases that had not been flagged as a possible outbreak. Subsequent actions will depend on the results of this investigation

Staff screening during outbreak situations:

A decision may be made by the Outbreak Committee to screen staff for MRSA as part of an investigation into a possible MRSA outbreak or if there are unusually high levels of MRSA in a clinical area. In most situations the screen will be nasal only:

- In this situation, it is compulsory for staff to be screened as an unscreened staff member may continue to act as a source of MRSA transmission to patients

- Screening will be carried out jointly by ward staff and OHD, with records maintained by OHD

- Staff with an MRSA positive result will be assessed for possible MRSA-disseminating lesions (e.g. wounds, eczematous lesions etc.). If present these will be investigated and treated accordingly

- Assuming no such lesions, the staff member will be prescribed a 5-day course of MRSA colonisation suppression treatment and the need to observe meticulous standards of hand hygiene will be reiterated

- The decision to continue working during the period of decolonisation needs to be assessed individually with input from the IPCT and OHD

- Staff will be re-screened two days after completion of decolonisation. If still MRSA positive, they will receive a further five days of decolonisation with re-screening two days after completing the course. If they remain MRSA positive, an individual plan will be agreed following discussion between an OHD Doctor, the staff member and the IPC Doctor (or deputy) on a case-by-case basis

- For the supply of prophylaxis or treatment to staff and relatives/carers following exposure to infectious conditions (see Appendix 4)

9. MRSA screening procedure

This includes nose and groin swabs (refer to Appendix 1) PLUS lesions, drain sites, sputum and urinary catheter samples as required. This must be taken within 12 hours of admission as part of the routine admission process.

MRSA rescreening is not routinely required. If this is required the IPCT will advise accordingly.

Labelling of MRSA Screening Swabs

It is important screening swabs are clearly labelled with the following definitions to enable performance data to be reported correctly:

Admission screening**:** Includes all acute emergency admissions, including patients that may have been previously positive on another admission episode.

Elective Screening**:** Includes all patients screened during the pre-assessment process. It is important that these specimens are clearly labelled with the location as follows:

- Day case
- Pre-op clinic
- Ophthalmology
- Obstetrics

Follow-up screening**:** Includes the re-screening or follow up swabs for MRSA patients that were found to be either positive on admission or during the hospital stay from a clinical specimen.
Routine screening: Includes specific high-risk patients who are routinely screened at regular intervals. Currently these include all ICU and SCBU

patients and all patients with central venous access devices (CVADs) or at the request of IPCT.

N.B The performance of MRSA screening is reported monthly to Divisional Board, Executive Board and Board of Directors.

10. Staff communication re: MRSA Colonised Patients

The IPCT will add an alert to the patient's Electronic Patient Record (EPR) for patients who have an MRSA positive result so staff are aware of the infection risk for future hospital visits.

The IPCT will notify the clinical and nursing teams of positive MRSA results. Specific IPC advice will be given verbally and documented in EPR.

GPs, district nurses and other relevant HCW's involved in the patients care after will be informed of positive results via the EPR discharge summary and is the responsibility of the discharging team.

11. Patient/Visitor Information

The clinical team will provide patient information regarding colonisation or infection of the identified organism and appropriate treatment.

Patient/visitor information leaflets are available from the IPCT including information regarding screening and treatment for both MRSA and Meticillin-sensitive Staphylococcus aureus (MSSA). Patient leaflets will also be provided at pre assessment and can be ordered via the IPCT.

Visitors should be advised that it is not necessary to wear protective clothing unless they are attending to the patient's hygiene needs etc, however meticulous hand hygiene is advised, and hand hygiene information leaflets are also available.

12. Management of Patients with MRSA

In the acute setting the following is required:

Source Isolation - if a patient has a known history of being colonised (see below) or has had an infection caused by MRSA, they must be nursed in source isolation, with the door closed, in accordance with the Isolation Policy (Section K). A standard precaution sign must be displayed on the door. If isolation facilities are not immediately available, an isolation breech form is completed by IPCT and the ward advised to complete an isolation Datix. The IPCT will liaise with staff to risk assess and advise re appropriate placement of patients.

N.B Patients with a previous history of MRSA are assumed positive. The IPCT will risk assess to establish whether isolation precautions are required, via the 3 year rule: a total of 3 years since a positive MRSA screen and at least 3 negative screen results.

MRSA screen – refer to Appendix 1.

Hand Hygiene - Hands must always be washed before and after attending patients even if gloves have been worn. Liquid soap and warm water should be used following all patient contacts or alcohol gel can be applied to visibly clean hands. Hand decontamination is vitally important in preventing HCAIs.

Personal Protective Equipment (PPE) - All staff that have direct contact with the patient, their immediate environment or blood / body fluids must wear single-use plastic aprons and gloves. PPE must be removed and discarded after each use and before leaving the room, with the exception of removing items to the sluice. In such instances, be aware of contact points that may become contaminated, and will require cleaning following removal of PPE.

Linen - All linen must be considered infectious and managed in accordance with the CHFT linen policy.

Waste Management - All isolation rooms must have a domestic bin and an orange infectious waste bin, in accordance with the waste policy.

Decontamination of equipment and the patient's environment - The patient's room requires twice daily cleaning with a chlorine-based disinfectant, for example Tristel, in accordance with the bed space cleaning protocol. All equipment and room furniture must be decontaminated daily and any equipment required for patient management should be disposable or dedicated for that patient only. These should be thoroughly cleaned after use or when no longer required with Tristel. If a commode is being used this must also be decontaminated after every use with Tristel. An **AMBER** clean is required on patient discharge/transfer.

Treatment of MRSA colonisation - Acute admission patients found to be colonised with MRSA require a course of colonisation suppression treatment (appendix 2). Instructions explaining how to apply this treatment can be found in appendix 5. If a patient is discharged prior to completion of the course, this should be included on the discharge prescription. If results become available after the patient has been discharged, the IPCT will inform both the patient and their GP via letter.

N.B To reduce the risk of Mupirocin resistance, the use of Mupirocin should be restricted to two treatments only unless the patient is due for a high risk procedure, when the risk of infection is thought to be greater than the risk of resistance. In such cases, it is important to ensure that the MRSA remains sensitive to Mupirocin. These cases should be discussed with the IPCT.

In addition, if there are any pharmacy supply issues with first line treatment, second line suppression treatment should be instigated.

Treatment of Neonates / Infants Under Age of 12 Months:
Octenidine 0.3% (Octenisan) antimicrobial wash lotion is advised for infants under the age of 12 months. This should be applied undiluted daily for 5 consecutive days. Hair should be washed on day 1 of the regime.

Method of administration:
Apply undiluted to a damp washcloth and apply to the skin and hair (day 1 only). This needs to be left for 3 minutes before washing off. Avoid contact with eyes/ears and do not apply to broken skin.

Clinical investigations - Patients with MRSA can undergo investigations in all departments, provided the department has been informed in advance. It is recommended that patients are seen at the end of the working session where possible **(**unless clinical need is a priority**),** and that they are dealt with promptly to minimise delay within the department. Decontamination of all equipment should be undertaken with Tristel.

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 PVL-SA status to ensure that the appropriate facilities are available, and the required precautions are applied. Movement for non-clinical reasons is not advised.

Transfers to other health care settings - If a patient with MRSA is transferred to another hospital or a care home, the receiving area should be informed so the necessary measures can be considered.

Booking of Patients for Ambulance Transport
Most carriers of MRSA or PVL-SA can be transported with other patients with no extra precautions. Arrangements should be made for patients to travel alone if any of the following apply:

- Open wounds such as skin grafts or exudating wounds that cannot be covered by an impermeable dressing
- Excessively expectorating sputum and may not be able to effectively dispose of / manage with tissues etc.

Assessment Prior to Discharge
Staff should ensure the following prior to patient's discharge / transfer:

- Catheters are emptied before discharge
- Wounds are checked for visible exudate and are covered with an impermeable dressing
- All peripheral venous cannulae are removed

Discharge Lounge
Providing the above risk assessment has been completed, patients with MRSA or PVL-SA can be sent to the discharge lounge.

13. MRSA Surveillance

The IPCT will undertake routine surveillance of alert organism data to monitor trends, detect outbreaks and 'hot spot' areas of infection. All new cases of hospital acquired MRSA will be reported monthly by wards to their clinical divisions. Each division has a target for the reduction of hospital acquired MRSA cases.

The IPCT will carry out enhanced surveillance of MRSA bacteraemia cases and report these to Public Health England (PHE) via the Data Capture system in line with Department of Health (DH) requirements.

14. MRSA Blood stream infections (BSI)

All MRSA BSI's are required to have a Post Infection Review (PIR) to identify how the case occurred, identifying any actions to reduce the risk of a reoccurrence in the future (NHS England 2014).

This review will attribute which organisation is responsible for the case (Pre 48hrs CCG, Post 48 hrs acute provider), and identify the cause of and any contributing factors either directly or indirectly related to the development of an MRSA BSI**:**

- MRSA BSI will be recorded on DATIX by the IPCT
- A formal review must be undertaken within 10 days of the trust notification of the positive blood cultures. This is a multidisciplinary review incorporating the IPCT, Clinical staff including the Consultant responsible for Patient care, Matron and CCG representative
- Outcome of the PIR must be documented on Public Health England HCAI data collection system

15. PVL (Panton-Valentine Leukocidin) Staphylococcus aureus

What is PVL–Staphylococcus aureus (PVL-SA)?

Staphylococcus aureus (SA) is a type of bacteria commonly found living on healthy skin. It particularly likes moist surfaces of the body, such as the nostrils, armpits and groin. People can be colonised with many different strains of SA, some potentially causing more infections than others. Some strains can produce the Panton-Valentine Leukocidin (PVL) toxin. These strains commonly cause boils or skin abscesses and are occasionally associated with more serious infections of the lungs, blood, joints and bones. Some strains of MRSA can also produce PVL toxin (HPA, 2011).

Historical background of PVL-SA:

Panton and Valentine first identified the toxin, which they classified as leukocidin back in 1932 (Panton and Valentine, 1932). In the 1950s and 60s, the phage type 80/81 strain of PVL-MSSA successfully spread in the UK and abroad resulting in widespread disease. This presented most commonly as boils and abscesses in previously healthy individuals, either in the community, hospitalised patients or healthcare workers. The increase in morbidity and mortality associated with PVL-MRSA has caused public health concerns worldwide. At present most PVL-SA strains in the UK have been MSSA. However in North America a major problem has emerged with most community acquired (CA) MRSAs producing PVL. One particular community strain is now spreading in hospitals.

Clinical features of PVL-SA:

As with other strains of *S. aureus,* PVL-SA predominantly cause Skin and Soft Tissue Infections (SSTI), usually recurrent due to the overproduction of white cells to compensate for the destruction by the leukocidin. PVL-SA can also cause severe invasive infections such as septicaemia, osteomyelitis and Pneumonia. Necrotising haemorrhagic pneumonia is the most serious clinical feature with a high mortality rate (> 62%). This often follows a “flu-like” illness which may be a genuine viral infection or reflect the bacteraemia, and tends to affect otherwise healthy young people in the community.

Skin and soft tissue infections are often recurrent and include:

- Boils (furunculosis), carbuncles, folliculitis, purulent eyelid infections
- Cutaneous lesions
- Pain and erythema out of proportion to severity of cutaneous findings
- Necrosis
- Necrotising pneumonia
- Necrotising fasciitis
- Osteomyelitis, septic arthritis, and pyomyositis
- Purpura fulminans (clinical picture reminiscent of meningococcal septicaemia)

Risk factors of PVL-SA:

PVL-SA infections are highly transmissible and can spread more readily in settings where individuals are in close physical contact or share personal items, for example towels. These groups include:

- families/households
- educational settings (including nurseries)
- military personnel/barracks
- close contact sports, for example, rugby, judo, wrestling

- care homes
- gyms
- prison settings

When to suspect a PVL-SA infection:

PVL-SA infection should be suspected if the patient has a necrotising SSTI, recurrent furunculosis or abscesses, or there is a clustering of SSTIs within a household or social group; also in invasive infections in immunocompetent people, particularly community acquired necrotising /haemorrhagic pneumonia in young, previously fit people.

Transmission of PVL-SA:

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

Airborne:
PVL-SA may be transmitted via the airborne route on skin scales but this is 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.

Transmission of PVL-SA to staff has occurred following contact with respiratory secretions during intubation of a case of necrotising pneumonia where PPE was not worn (HPA 2008). HCWs should wear PPE, including face and eye protection (e.g. surgical mask with integral eye protection), during intubation and respiratory care of a patient with possible necrotising pneumonia. HCWs indirect contact with respiratory secretions (particularly during intubation or mouth to-mouth resuscitation from a PVL-positive patient) and who were not protected by appropriate PPE should be screened three to seven days after the exposure and advised to report to a physician should symptoms of infection present subsequently. Screening should be arranged through the occupational health department in liaison with the IPCT.

16. IPC Management of PVL-SA:

Screening - PVL – SA screening is the same as for MRSA (refer to page 9 and appendix 1). The sample request must clearly indicate ‘Suspected PVL-SA’ and include a clinical history.

Source Isolation - Source isolation with en-suite facilities is required for all known or suspected cases of PVL-SA with the door closed, in accordance with the Isolation Policy (Section K). A standard precaution sign must be

displayed on the door. If isolation facilities are not immediately available, an isolation breech form is completed by IPCT and the ward advised to complete isolation Datix. The IPCT will liaise with staff to risk assess and advise re appropriate placement of patients.

Hand Hygiene - Meticulous hand hygiene is vital to prevent cross transmission of PVL-SA. Hands must always be washed before and after attending patients even if gloves have been worn. Liquid soap and warm water should be used following all patient contacts or alcohol gel can be applied to visibly clean hands. Hand decontamination is vitally important in preventing HCAIs.

Personal Protective Equipment (PPE) - All staff that have direct contact with the patient, their immediate environment or blood / body fluids must wear single-use plastic aprons and gloves. In addition, HCWs should wear a surgical face mask and eye protection during intubation and respiratory care of a patient who has possible necrotising pneumonia. Protective clothing must be removed and discarded after each use and before leaving the room, with the exception of removing items to the sluice. In such instances, be aware of contact points that may become contaminated and will require cleaning following removal of PPE.

Linen - All linen must be considered infectious and managed in accordance with the CHFT linen policy.

Waste Management - All isolation rooms must have a ‘domestic’ bin and an orange infectious waste bin in accordance with the waste policy.

Decontamination of equipment and the patient’s environment - The patient’s room requires twice daily cleaning with a chlorine-based disinfectant, for example Tristel, in accordance with the bed space cleaning protocol. All equipment and room furniture must be decontaminated daily and any equipment required for patient management should be disposable or dedicated for that patient only. These should be thoroughly cleaned after use or when no longer required with Tristel. If a commode is being used this must also be decontaminated after every use with Tristel. A **RED** clean with hydrogen peroxide vapour is required on patient discharge/transfer.

Clinical investigations - Patients with PVL-SA can undergo investigations in all departments, provided the department has been informed in advance. It is recommended that patients are seen at the end of the working session where possible **(**unless clinical need is a priority**),** and that they are dealt with promptly to minimise delay within the department. Decontamination of all equipment should be undertaken with Tristel.

Decolonisation treatment - Decolonisation treatment (appendix 2) is usually recommended for patients (and their close contacts) with confirmed PVL-SA

infection to try and rid the body of this bacteria causing infection and interrupt transmission from person to person. The topical decolonisation should be restricted to a single 5 day course, commencing after the acute infection has resolved, and after standard prevention measures have been reinforced. Instructions explaining how to apply this treatment can be found in appendix 4. An antiseptic gargle may also be required; risk assessed on an individual basis.

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 PVL-SA status to ensure that the appropriate facilities are available, and the required precautions are applied. Movement for non-clinical reasons is not advised.

Transfers to other health care settings - If a patient with PVL-SA is transferred to another hospital or a care home, the receiving area should be informed so the necessary measures can be considered.

Booking of Patients for Ambulance Transport - Most carriers of PVL-SA can be transported with other patients with no extra precautions. Arrangements should be made for patients to travel alone if any of the following apply:

- Open wounds such as skin grafts or exudating wounds that cannot be covered by an impermeable dressing
- Excessively expectorating sputum and may not be able to effectively dispose of / manage with tissues etc.

Assessment Prior to Discharge - Staff should ensure the following prior to patient's discharge / transfer:

- Catheters are emptied before discharge
- Wounds are checked for visible exudate and are covered with an impermeable dressing
- All peripheral venous cannulae are removed

Discharge Lounge - Providing the above risk assessment has been completed, patients with or PVL-SA can be accommodated in the discharge lounge.

General Patient advice - Any skin lesions should be covered with a dressing and changed regularly according to the clinical assessment. Used dressings should be disposed of in the orange waste stream. The patient is advised not to touch or squeeze skin lesions. Good personal hygiene should be emphasised, including hand hygiene, not sharing towels or a bath and to refrain from communal activities, i.e swimming or contact sports until wounds have healed.

Staff with PVL-SA - If a HCW has a positive PVL-SA swab they should be managed collaboratively with IPC and the OHD, with the general advice that they should not return to work until the acute infection has resolved. Close contacts also require risk assessment (refer to Appendix 4), and if required, receive concurrent decolonisation (Appendix 2).

Staff exposure at work - HCWs in direct contact with respiratory secretions (particularly during intubation or mouth-to-mouth resuscitation from a PVL-positive patient) and who were not protected by appropriate PPE, should be screened three to seven days after the exposure and advised to report to a physician should symptoms of infection present subsequently. Screening should be arranged through the Occupational Health Department in liaison with the IPCT. HCWs not in direct contact with respiratory secretions do not require screening.

17. Trust Equalities Statement

Calderdale and Huddersfield Foundation Trust aims to eliminate discrimination, harassment and victimisation and advance equality of opportunity through fostering good relationships, promoting inclusivity and embedding the “One Culture of Care” approach throughout the organisation. Stakeholder engagement is vital to analyse the equalities impact of this policy and ensure where there are any negative impacts, mitigation has been discussed and acted on.

18. Training and Implementation

The policy will be available on the Trust Intranet and communicated through existing clinical forums, senior managers, briefings, divisions, induction and mandatory training.

19. Monitoring Compliance with Procedural Document

Compliance will be monitored monthly via the IPC Dashboard and reported to the Executive Boards, also via the key performance indicators and the IPCT and Saving Lives.

20. References

1. Department of Health (2014) **Implementation of modified admission MRSA screening guidance for NHS. Department of Health expert advisory committee on Antimicrobial Resistance and Healthcare Associated Infection(ARHAI),** https://www.gov.uk/government/publications/how-to-approach-mrsa-screening

2. Health Protection Agency (2008). **Guidance on the diagnosis and management of PVL-associated *Staphylococcus* aureus infection (PVL-SA) in England. 2nd Edition. 7th November 2008.**

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3. Assessment of risk to close contacts of patients with lower respiratory tract infection due to Panton-Valentine leucocidin-positive Staphylococcus aureus in England: Version 1.3. PHE 2013. Gateway Ref No: 2013963.

4. Health Protection Agency/Royal College of Nursing (2011**).Panton-Valentine Leukocidin-positive Staphylococcus aureus (PVL-SA), RCN guidance for health professionals**

5. WHO (2017) http://www.who.int/mediacentre/factsheets/fs194/en/

APPENDIX 1

MRSA Screening Process

When:	On admission to CHFT or if the patient is being pre-assessed.
Who:	Currently **ALL** emergency and elective admissions to CHFT.
What:	**A full screen includes:** • One swab for both nostrils • One swab for both groins • Swab any lesions / drain sites / PEG site etc • CSU if urinary catheter present
How:	**Nose:** • Carefully insert one swab into the patient's nostril, up to 1 inch (2.5cm) from the edge of the nares (adult patient) • Roll the swab 5 times • Repeat with the other nostril • Place the swab into its container **Groin:** • Swab the patient's groin area using a rotating technique for 3 seconds • Place swab in container **DO NOT** give to the patient to perform. All swabs to be taken by HCWs who are aware of the appropriate techniques.

Infection Prevention & Control Department

MRSA Colonisation Suppression Treatment

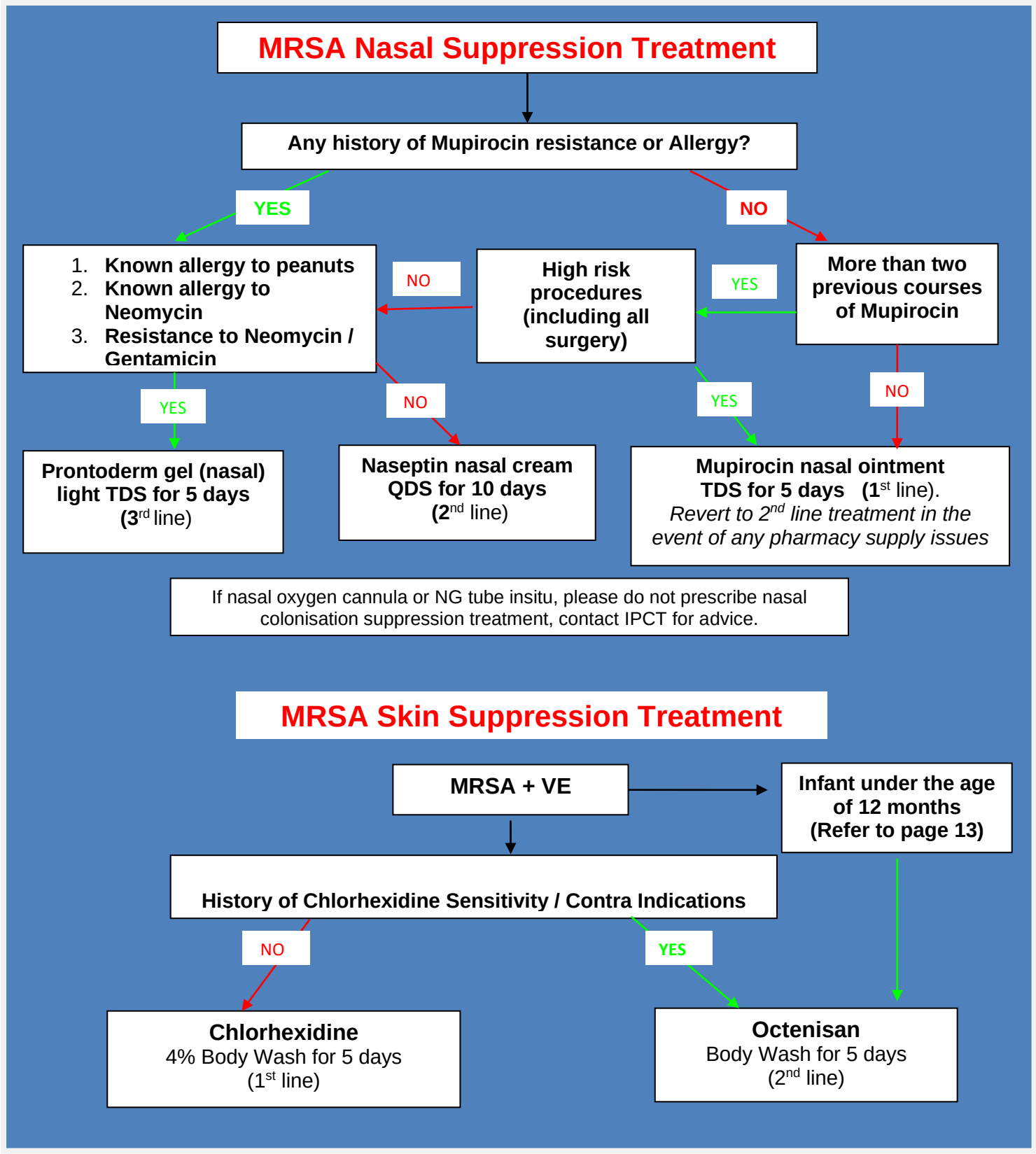
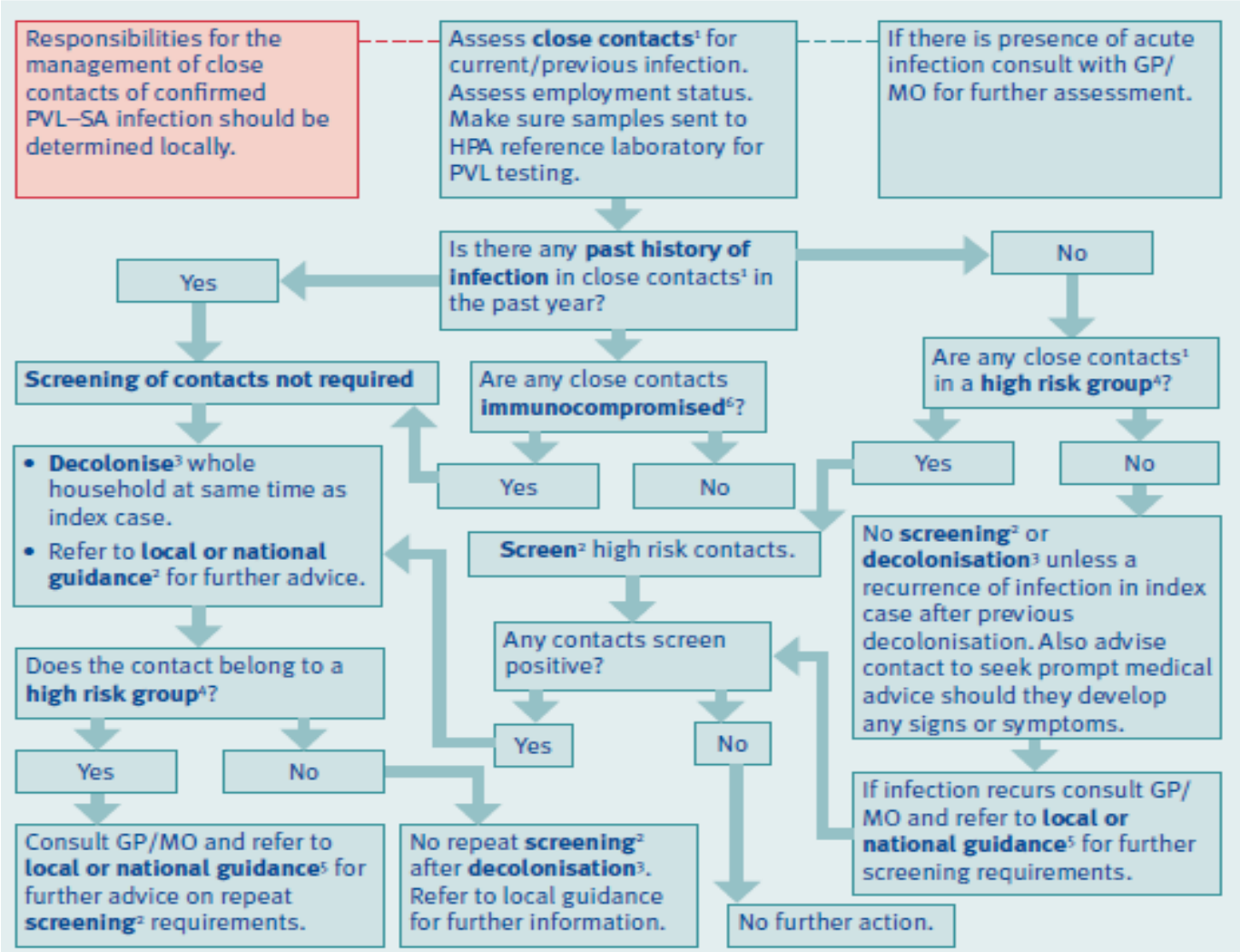


Figure 2: Principles of risk assessment and the management of close contacts of confirmed PVL-SA infection[4]



Adapted from: *Health Protection Agency, Local and Regional Service (LaRS) – Management of PVL-SA. Recommendations for Practice 2010*

1. **Close contact** is defined as someone who has had prolonged close contact with the case in a house-hold type setting during the seven days before onset of illness. Examples of such contacts would be boyfriend/girlfriend/ those living and/ or sharing a bathroom in a hall of residence.
2. **Screening** should include a swab of the nose, throat, and any suspicious lesions, including damaged skin. Other sites that may be swabbed include perineum and axilla. Please mark on specimen contact of confirmed case of PVL SA infection. If consent to screen cannot be obtained discuss with GP/ MO.
3. **Decolonisation** is ineffective if skin lesions are still leaking. Only start after infection has resolved. When indicated, decolonise case with other close contacts at the same time.
4. **High risk groups:**
   - Health care workers in health and social care settings (includes care home staff)
   - Participants of close contact sports e.g. rugby or wrestling
   - Regular user of gyms
   - People in closed communities e.g. military camps and prisons
5. **National guidance** (including leaflets) available at: www.hpa.org.uk/web/HPAwebFile/HPAweb_C/1218699411960
6. **Immunocompromised** – patients receiving immunosuppressive chemotherapy/radiotherapy, receiving immunosuppressive treatment for bone marrow or solid organ transplant, high dose steroids, diagnosed with immunodeficiency syndrome or disease e.g. HIV. See Immunisation against infectious Disease – The Green Book (2006), DH p 42 for further information www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079917

Inform local Health Protection Units (HPUs) of confirmed case(s) of PVL-SA if:

1. **Infection is in a care home/ residential facility**
2. **There is suspicion of spread in nurseries, schools, universities and sports facilities**
3. **Clusters/outbreaks are suspected**
4. **Invasive disease if suspected**

APPENDIX 4

Supply of prophylaxis or treatment to staff and relatives/carers following exposure to infectious conditions

This covers the supply of medicines to staff who have been in contact with infectious patients and require prophylaxis or treatment in accordance with national and/or public health guidelines.

In exceptional circumstances relatives and/or carers may also require prophylaxis or treatment to be supplied by CHFT where any delay in obtaining from their GP may compromise the patient or themselves. For example:

- Chemoprophylaxis for meningitis
- MRSA suppression for parents of babies on SCBU

Please refer to CHFT Outbreak of Infection Policy
https://intranet.cht.nhs.uk/chft-documentation/view-document.php?docID=495

Roles and responsibilities
On-call microbiologist will advise on medication required (see Green Book, PHE guidance).

Occupational Health (during hours)
- To undertake contact tracing to identify staff, record on personal file and inform pharmacy of potential numbers of staff which will require medication
- To administer vaccination if appropriate to the situation

Clinical staff on outbreak ward (out of hours)
- To undertake contact tracing to identify staff and inform pharmacy of potential numbers of staff who will require medication if this can't wait till normal working hours

Medical team on outbreak ward to prescribe the indicated prophylaxis on an outpatient prescription which can be obtained from pharmacy

CHFT Pharmacy (not Rowlands) – dispense medicines – book out to occupational health – no prescription charge payable

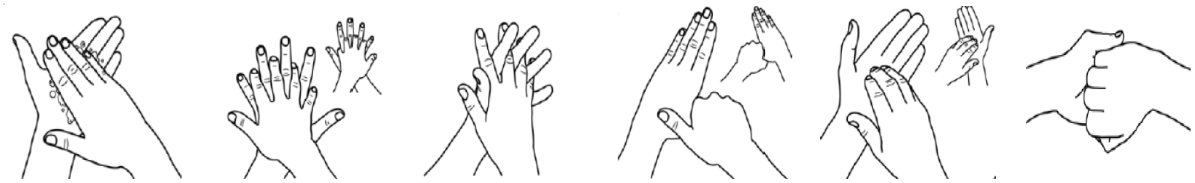
APPENDIX 5

NHS
Calderdale and Huddersfield
NHS Foundation Trust

MRSA Suppression Treatment Application

How to use Nasal Ointment and Body Wash 5 day course Patient Instructions

1 Wash your hands with soap and water before and after using the treatment



2 Body Wash

Use once a day for 5 days.

Wet skin and apply the undiluted body wash to the whole body using your hands or a clean cloth.

Wash thoroughly, especially the armpits and groin, leave for 2 minutes and then rinse and dry.

Avoid contact with eyes and do not use internally.

Wash your hair with the body wash once during the five days.

3 Nasal ointment

Apply three times a day for five days.
Using clean hands, apply a match head sized blob of ointment onto your little finger and apply it to the inside of each nostril.

Pinch your nose to spread the ointment in your nostrils.

compassionate care

4 Change your clothing (day and night wear), towels, pillowcases and sheets daily during the five day course.

	Body Wash	Nasal Ointment		
	Daily	Morning	Afternoon	Evening
Day 1 -				
Day 2 -				
Day 3 -				
Day 4 -				
Day 5 -				

5 Use this chart to help make sure you complete the course.

If you have any comments about the service you have received you can contact:

the ward or department that issued the treatment on

_____

or if you have any comments about this leaflet you can contact :

The Infection Prevention Control Team
Calderdale Royal Hospital
Telephone No: 01422 222376

www.cht.nhs.uk

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

ਰ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਪ੍ਰਾਰੂਪ ਜਾਂ ਭਾਸ਼ਾ ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو یہ معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں.

"إذا احتجت الحصول على هذه المعلومة بشكل مغاير أو مترجمة إلى لغة مختلفة فيرجى منك الاتصال بالقسم المذكور أعلاه"

CHFT