Worcestershire NHS
Acute Hospitals NHS Trust

PROTOCOL FOR THE MANAGEMENT OF Meticillin Resistant *Staphylococcus aureus* (MRSA)

This guidance does not override the individual responsibility of health professionals to make appropriate decisions according to the circumstances of the individual patient in consultation with the patient and / or carer. Healthcare professionals must be prepared to justify any deviation from this guidance.

INTRODUCTION

These guidelines are to assist in the identification and management of adult patients colonised or infected with MRSA.

THIS PROTOCOL IS FOR USE BY ALL STAFF GROUPS

Lead Clinician(s)

Dr Chris Catchpole	Consultant Microbiologist
Heather Gentry	Lead Infection Prevention & Control Nurse
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Key amendments to this Document:

Date	Amendment	By:
February 2013	Document updated following development of WAHT-INF-006 new document combining MRSA screening protocols	H Gentry T Fell S Pitts
May 2015	General review and minor amendments to linen bagging procedure, decolonisation pending screening results and presentation of information	A Dyas H Gentry
June 2015	Further review	A Dyas
June 2017	Full guideline review to ensure consistency between MRSA screening and management protocol	H Gentry K Howles
January 2018	Change wording of 'expiry date' on front page to the sentence added in at the request of the Coroner	

"Addendum to policy February 2018 – national shortage of Bactroban® (mupirocin) 2% nasal ointment

An addendum to policy is in place until further notice due to a national shortage of Bactroban® nasal ointment, used as part of decolonisation therapy following positive MRSA screen. Normal supply is not expected to resume until end of first quarter 2018. Interim guidance is therefore being issued with regard to MRSA decolonisation:

When a shortage of 2% Bactroban nasal ointment exists, for the nasal suppression of MRSA or MSSA, use **EITHER**:

1st choice: Octenisan nasal gel on a like-for-like swap with Bactroban nasal ointment – i.e. a generous amount applied to each nostril with a fingertip three times per day for 5 days. This will continue to be given in conjunction with 5 days of Octenisan body wash.

OR

2nd choice (if Octenisan is unavailable or the patient is allergic to it): Naseptin nasal ointment QDS for 10 days. This will be in conjunction with Octenisan body wash once a day for 5 days. Do **NOT** give Naseptin if the patient has a nut or soya allergy.

'Staph packs' used for decolonisation will include either of the above but will include an appropriate matching patient information leaflet.

PGDs are in place to over both of the above options.

A small stock of 2% nasal Bactroban ointment will be retained by the Trust to be used at the discretion of hospital and community IPCTs and Consultant Microbiologists as per current protocol should two courses of decolonisation not be successful.

The addendum will remain in force until supplies of Bactroban® nasal ointment have resumed at which time this addendum to policy will be removed".

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2.1 INTRODUCTION

Patients with MRSA may be identified through routine admission screening or clinical samples taken to exclude infection.

What is Meticillin Resistant *Staphylococcus aureus* (MRSA)?

Staphylococcus aureus is a Gram positive coccus and is present in the normal flora of the nose of 30% of individuals and the perineum in 15%.

Staphylococcus aureus can cause boils and abscesses in healthy people and is the most common cause of wound infection post-operatively.

Meticillin (= Flucloxacillin) resistant strains of *Staphylococcus aureus* (MRSA) were first reported in the United Kingdom in 1961 and have since been responsible for outbreaks of infection in many parts of the world. There are epidemic strains (MRSA), which are resistant to other antibiotics as well as meticillin including gentamicin, erythromycin and tetracycline.

Note: Certain MRSA strains can be resistant to many antibiotics. More recently, strains of MRSA which have reduced susceptibility to the glycopeptide antibiotics (vancomycin and teicoplanin) have been identified from clinical isolates elsewhere in the world.

How is MRSA spread?

Direct – Hand carriage by staff is the most common route of spread from patient to patient

Indirect – The organism can spread via contaminated equipment, eg mattresses

Airborne – The organism may be dispersed into the environment via skin scales or in droplets from the respiratory tract. The organism can also be found in dust.

Susceptibility to MRSA

Patients may be carriers of the organism, i.e. colonised, without having signs or symptoms of infection.
People who are most susceptible to infections due to MRSA are the very old, young and those who are immunocompromised or are undergoing invasive procedures. The most serious consequences of MRSA have been seen among patients in surgical units with open wounds or lesions and those in intensive care or burns units.

2.2 PRE-OP ADMISSION (POA) & PRE-ADMISSION SCREENING

All elective admissions must be screened for MRSA before admission for the procedure, unless in exception categories. For advice regarding pre-admission screening of patients refer to: WAHT-INF-006 Protocol for Admission Screening Meticillin Resistant *Staphylococcus aureus* (MRSA) Including Elective, Non-Elective, Orthopaedic and Vascular Surgery

2.3 BODY SCREENING

If the patient has a previous history of MRSA colonisation or infection, a series of three negative screens 48 hours apart are required on non-elective admission
Any person who is screened should be washed in antiseptic body wash (eg, Hibiscrub Plus) while waiting for screening results. This may stop if results are negative unless patient is in a critical area where washing with Octenisan® is routine practise. For all other patients, await a positive MRSA results from screening, unless advised otherwise by IPCT, before commencing a Staph Pack (see 2.10).

There are 2 main purposes for screening patients:

1. **Control of infection** – To assess the level of skin colonisation which gives an indication of infectivity.

2. **Clinical treatment** – To determine the most appropriate treatment regime for the individual patient and evaluate its effectiveness.

WHO?

If the patient is a known previous MRSA case, 3 sets of negative screening swabs are required to evidence the patient is negative for MRSA on admission. Screening swabs should be taken at 2 day intervals. If a positive screen is obtained on the first or second screen there is no need to collect any further admission screens.

Pre-admission:

All elective admissions with a small number of exceptions:

PATIENT GROUPS THAT ARE EXEMPT FROM MRSA SCREENING:

- Day case ophthalmology
- Day case dental extractions only
- Day case endoscopy
- Minor dermatological procedures, e.g. warts, liquid nitrogen procedures
- Radiological procedures (see exceptions below)
- Paediatrics,Teenagers and Young Adults - (see exceptions below)
- Low risk obstetrics (see exceptions below)
- Pain management (see exceptions below)
- Mental health general
- Termination of pregnancy (see exceptions below)
- Low risk mental health patients (but excluding transfers from other units, self -harm patients, intravenous drug users or any other mental health patient falling into a high risk group)

Refer to WAHT-INF-006 Protocol For Admission Screening Meticillin Resistant *Staphylococcus aureus* (MRSA) Screening and methicillin Sensitive *Staphylococcus aureus* (MSSA) Screening including Orthopaedic and Vascular Surgery

For elective surgery Screen 1 should be taken in POA clinic if positive proceed to decolonisation programme if negative screen 2 to be taken on day of admission and screen 3 at 48 hours after admission if still an inpatient.

On admission:

All admissions who have not been screened for MRSA colonisation pre-admission: WAHT-INF-006 Protocol For Admission Screening Meticillin Resistant *Staphylococcus aureus* (MRSA) Including Elective, Non-Elective, Orthopaedic and Vascular Surgery.

NB - Patients do NOT need to be screened on transfer to wards within the trust unless they are a known previous MRSA and need to complete the set of 3 admission screens.

Patients at high risk of MRSA colonisation include:

- All patients previously positive for MRSA from any site
- All patients admitted to protected orthopaedic and vascular wards
- All patients from nursing / residential homes
- All transfers from other hospitals / in-patient units
- All patients who have had an in-patient stay in the last 12 months

- All admissions to ITU, vascular HDU, surgical HDU
- All transfers into Neonatal Units (NNUs) from other hospitals
- Patients for surgery who are carers for patients with MRSA (this includes healthcare workers)
- Patients for surgery who receive District Nursing or health and social care at home
- Patients who regularly visit relatives or friends in a residential or nursing care environment
- Immunocompromised patients
- Patients with chronic wounds, e.g. leg ulcers
- Patients with extensive exfoliating skin conditions
- Patients with permanent indwelling urinary catheters, parenteral gastrostomies (PEGs) or long term intravenous lines
- Patients on renal dialysis
- IV drug users
- Other patients / groups after discussion with the Infection Prevention & Control Team

Patients who fall into these categories should be started on antiseptic body washes (Hibiscrub plus) whilst awaiting MRSA screening results.

Weekly screens:

- Critical Care and HDU patients
- Patients referred for dialysis at or transport to another centre.

Monthly screens:

- all adults who have been in-patients for one month or longer, repeated at monthly intervals as appropriate.

NB: In addition specific request may be made for MRSA screening prior to transfer to another Trust / Unit.

What swabs to take?

MRSA SCREENING PROCEDURE

Screening will be undertaken by staff trained to do so.

The following samples are required:

- skin swabs from nose and groins (using charcoal medium swab)
- swabs from any other areas of broken skin, or wounds (using charcoal medium swab)
- Catheter Specimen of Urine (CSU) if patient catheterised
- Sputum, if productive cough

Pre-admission clinic staff should indicate the expected or actual date of admission on the microbiology request form and send samples to the Microbiology Laboratory for processing. Results will be returned to the requesting source.

When sending specimens to the Microbiology Department:

- Ensure ICE or paper request forms (for environmental and staff screening) and specimens comply with the Patient Sample and Request Form Minimum Identification Criteria Policy available in the Pathology Handbook on the Trust Intranet.
  Unlabelled or unidentified specimens will not be processed.
- Ensure site of swab is clearly identified on both the specimen and the request form.

Clinical details are required on the request form plus:

- MRSA status (if known)
- Any other relevant details e.g. expected date of admission, surgery or transfer to another care provider (transfer screens).

Rapid MRSA PCR screening tests using charcoal medium for nasal swabs only may be available for individual urgent cases where there is insufficient time for routine culture methods. Please discuss this with a Consultant Microbiologist.

HOW?

A poster on the 18 Step Guide to taking MRSA swabs is available at ward level in the IPC resource folders, on the Infection Control Team intranet page and at Appendix 2

1. Wash hands
2. Don apron and non-sterile gloves (this will avoid contamination with the operator's flora and potential contact with the patient's environment or body fluids.
3. Use a plain charcoal medium swab, a single swab can be used to sample both nostrils, a second swab can be used to sample both groins
4. Swabs used to sample dry skin sites must be moistened by applying drops of sterile water for injection or saline into the packaging to moisten the tip of the swabs. Care must be taken to avoid contaminating either the swab tip or shaft of the swab with your own skin flora or contaminants from the environment.

NB: Wait at least 48 hours between consecutive screens, i.e. no need to screen on admission to HDU if screened within the previous 48 hours

Nose Swab

Gently insert the tip of the moistened swab into the anterior nares and rotate several times against the mucosal surface. Repeat using the same swab for the other nostril.

Groins / Perineum

Firmly rub the groin area with the second moistened swab.

Wound / Lesions

Any breaks in the skin or wounds should also be sampled using a charcoal swab moistened if the area is dry.

Please ensure the site and type of wound, e.g. leg ulcer, are noted under clinical details along with any antibiotic therapy in use.

Urinary Catheters

If the patient has an indwelling urinary catheter please ensure a CSU is taken.

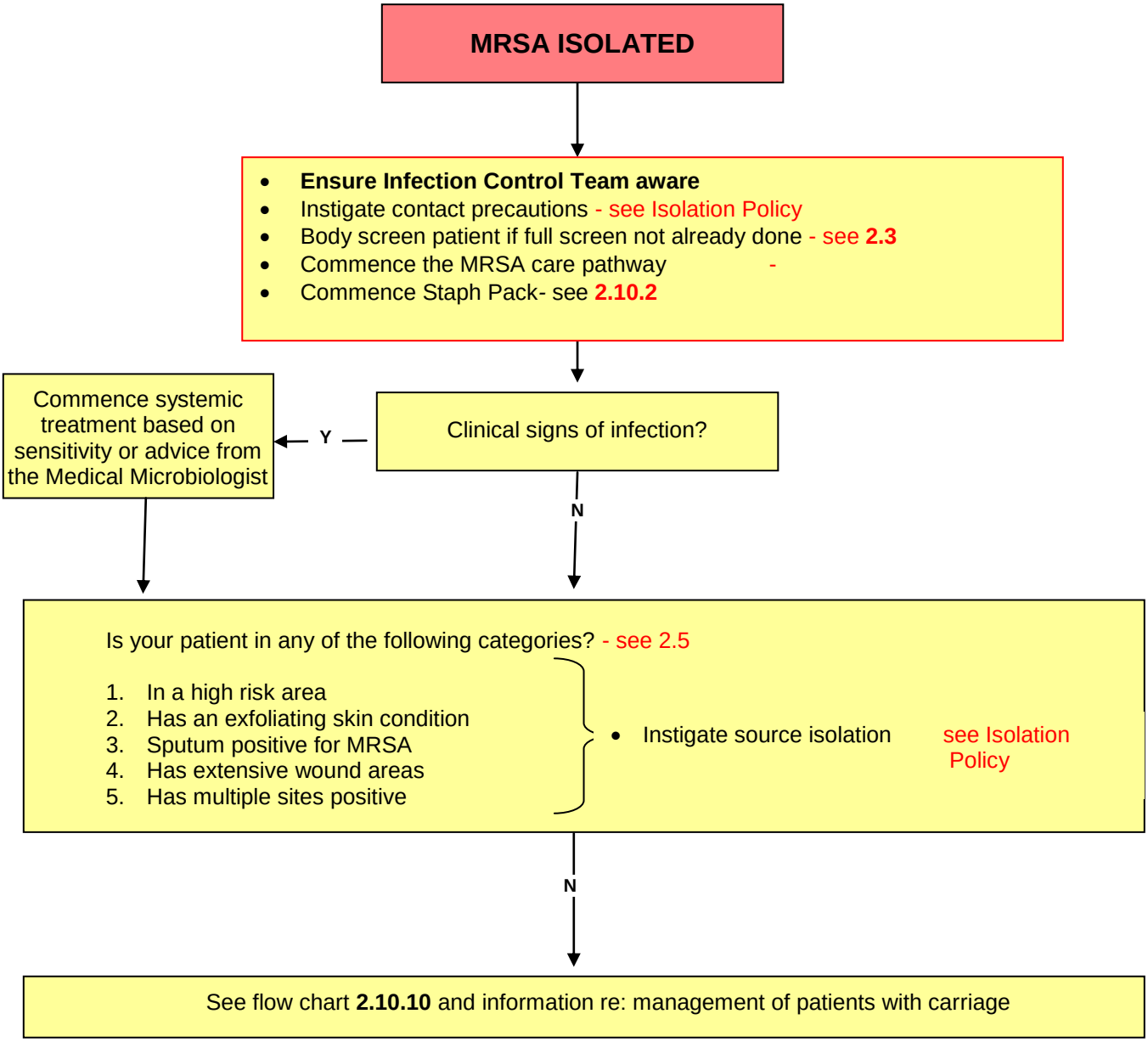
Sputum

If the patient has a productive cough, send a fresh specimen of sputum.

Peripheral and Central Lines

If the patient has any invasive devices the entry site must be assessed and swabbed if any signs of clinical infection present e.g. phlebitis score of 2 or above, unexplained redness or pus.

2.4 RISK ASSESSMENT FLOW CHART



2.5 MANAGEMENT OF PATIENTS WITH MRSA

The management of MRSA positive patients will vary according to risks associated to the individual patient and the clinical area.

High risk clinical areas

A high risk area is one in which patients are at greater risk from the consequences of MRSA infection and include:

- Intensive Care Units
- High Dependency Units
- Coronary Care Units
- Neonatal Units
- Vascular wards
- Orthopaedic wards
- Admission units

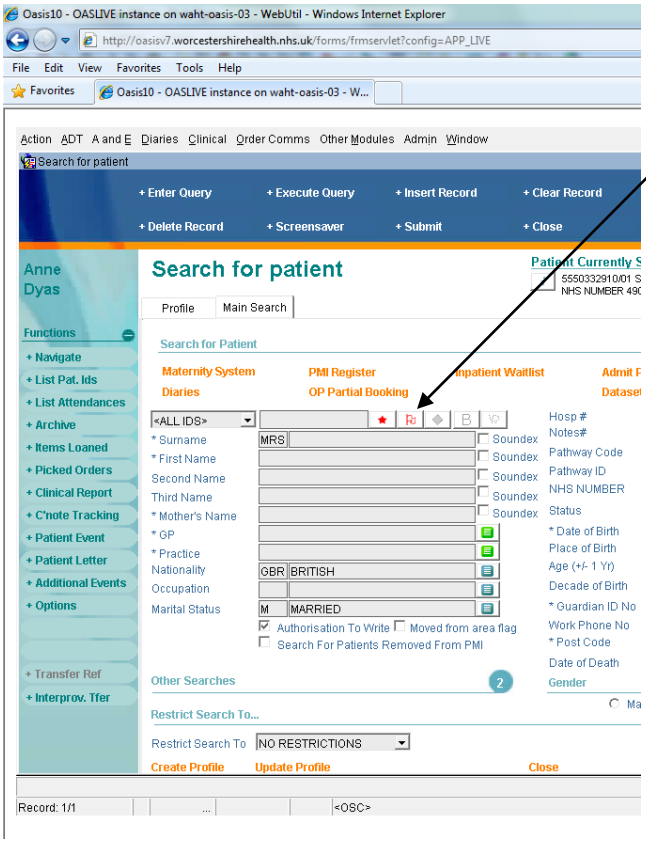
NB: Other departments are considered a medium risk for MRSA, however, all patients cared for in the acute hospital setting are potentially at risk of being colonised or infected with MRSA.

Patients who pose a high cross infection risk

- Sputum positive
- Exfoliating skin conditions
- Extensive wounds
- Multiple sites

2.6 PATIENT ALERT IDENTIFICATION

Patients with known or suspected infections should be easily identifiable by all relevant staff with direct patient contact, e.g. allied healthcare professionals, housekeeping and portering staff, whilst maintaining confidentiality.
The Infection Control Team will flag the patient's name on the patient administration system (PAS/OASIS) system where possible. Staff are responsible for checking patient records for any alerts including.ICE pathology system, medical and nursing records and Trust PAS/OASIS system. The purpose of patient alerts is to ensure the safety of all patients by identifying known MRSA patients on future admissions as high risk, to facilitate correct screening and management.



2.7 PATIENT, VISITOR AND STAFF INFORMATION

The following information leaflet is available on the intranet (see link below). Hard copies are available from the Xerox Print Room. Please ensure patients are given a copy of the leaflet(s) appropriate to their situation:

http://nww.worcsacute.nhs.uk/departments-a-to-z/infection-prevention-and-control/mrsa/

1. MRSA/MSSA Treatment Information For Patients and Carers (for MRSA or MSSA positive patients and staff) and wound care leaflet if appropriate.

The Infection Prevention and Control Nurse is available to give further advice to the patient, their carers or visitors if required.

Visitors

- Need to wear an apron as protective clothing only when visiting a patient with MRSA in isolation unless delivering direct care, in which case gloves should also be worn.
- Should be advised not to visit patients in other areas of the ward or hospital.
- Should be instructed to use sanitising hand rub on entering the patient's room and use soap and water followed by sanitising hand rub when leaving the room.
- May be reassured that healthy people are at very low risk of acquiring MRSA and social contact need not be discouraged, e.g. holding hands.

2.8 INFECTION PREVENTION AND CONTROL PRECAUTIONS

The aims of infection control precautions with MRSA are:

- To prevent cross infection to other patients
- To prevent colonisation or infection of staff

Infection prevention and control measures to prevent transmission of MRSA are to be used at all times, regardless of whether the patient is in isolation (a high risk to others) or being nursed in the main ward (in a medium risk area).

1. **Meticulous hand hygiene** is the most important means of preventing the spread of MRSA.

   Wash hands with soap and water or use sanitising hand rub before and after direct care or contact with the patient. If the patient is in isolation, hands must be washed prior to leaving room, or if in the main ward, use the nearest hand wash facility.

   After thorough drying, a sanitising hand rub must be used on exiting the room, or at the bedside, to achieve hand disinfection.

2. **Management of medical devices**
   Any device that breaches the body's natural defences poses a risk of infection. Meticulous attention to appropriate skin preparation prior to insertion and adherence to best practice during on-going maintenance or when accessing devices is imperative to prevent device related infection and bacteraemia.

3. **A plastic apron** must be worn when carrying out direct care procedures, including bed making, to prevent the carer's clothing from becoming contaminated. The apron should be discarded appropriately after use into the infected waste stream.

4. **Gloves** must be worn when handling dressings and body fluids as per standard universal precautions. Hands must be washed after removing gloves.

5. **Eye protection** must be worn where there is a risk of splashing of body fluids.

6. **Masks** (fluid shield) must be worn for procedures where aerosol is produced, e.g. endotracheal suction. This is particularly important for sputum positive patients.

7. **Bed linen** should be changed daily. The plastic mattress cover should be cleaned with sanitising wipes after the patient is discharged and at weekly intervals during prolonged admission.

   - Used linen must be placed in a red, water soluble bag at the bedside, and then a white plastic laundry bag at the door, sealed and put straight out for collection
   - The linen needs to be processed as 'infected linen.'

8. No special precautions are required for **crockery and cutlery**

9. No special precautions are required for **clinical specimens**

10. Waste should be discarded in an **infected waste** bag in the room or placed in a bag at the bedside and sealed before disposal in the infected waste stream in the sluice if nursed in a bay.

11. All **staff** with skin lesions (including eczema), should not look after MRSA patients as lesions can be readily colonised with the organism. Any staff with dermatological problems should contact the Occupational Health Department for assessment and advice.

NB: In emergencies / on-call situations the above staff must wear gloves for **all** direct contact.

12. **Equipment** – Disposable tourniquets and blood pressure cuffs are available for use. Disposable tourniquets and blood pressure cuffs may be used more than once for the same patient. Write the patient's name and unit number or date of birth on the equipment and leave at the bedside or in the isolation room. The use of a disposable wash bowl system should also be considered or a re-usable bowl designated designated to the patient and stored in their single room.

2.9 ISOLATION PRECAUTIONS

The term isolation is commonly used in the sense of segregation of a patient in a single room; it is used here to include several methods of infection prevention and control.

Patients infected or colonised with MRSA **should, wherever possible, be nursed in a single room**. Where single room accommodation is not available, a risk assessment must be undertaken using the Side room Prioritisation Assessment Tool
http://nww.worcsacute.nhs.uk/departments-a-to-z/infection-prevention-and-control/mrsa/

Contact the Infection Prevention and Control Team if further advice is required following the risk assessment.
Ensure a standard isolation precaution sign is displayed on the door.

Single room isolation may not be practical in the following circumstances:

High Risk Areas	- Clinical or mechanical difficulties in moving patient, e.g. haemofiltration - Practicalities, e.g. staffing / lack of single rooms
All Other Areas	- Practicalities, e.g. falls' risk, staffing / lack of single rooms - Patient compliance

Reasons for lack of compliance with the protocol must be documented in the patient's medical records or on the MRSA pathway document. Restrictions may be slightly modified in other areas dependant on assessment of infection risk. These patients may not require single room accommodation.

Single room isolation is advisable, in all clinical areas where the patient is MRSA sputum positive, has an exfoliating skin condition or is widely colonised (multiple sites).

In some areas MRSA positive patients can be isolated together (cohort nursing) on the advice of the Infection Control Team.

2.10 TREATMENT REGIMES

2.10.1 Systemic treatment

Systemic antibiotics may be required if there is clinical evidence of infection, however, they cannot be relied upon to clear skin carriage. Generally, a combination of two antibacterial agents, to which the infecting strain of MRSA is susceptible are used to treat infection. For serious infections this usually includes a glycopeptide (vancomycin or teicoplanin) – see Trust antimicrobial guidelines for further information.

2.10.2 Topical treatment

Anti-staphylococcal agents (Staph Pack) – will be prescribed to eradicate skin colonisation and administration by any healthcare worker documented on the MRSA decolonisation record sheet.

STAPH PACK CONTENTS

- Antiseptic body wash – Octenisan Body and hair shampoo
- Bactroban – Calcium Mupirocin 2% nasal ointment

NB: Document use of Staph Pack on decolonisation record sheet (see Appendix 1)

REMEMBER

The aim of MRSA eradication in the hospital setting is to reduce the risk of infection occurring in the colonised patient, and of cross infection to other patients, i.e. Healthcare associated infection (HCAI).

2.10.3 USE OF BODY WASHES IN ADULTS AND CHILDREN

Bathing

- Wet skin. Apply about 30 ml of Octenisan® directly onto the skin using hands or a disposable cloth (refer to manufacturer's instructions).
- Use as a liquid soap and shampoo. Pay particular attention to the hairline, axillae, umbilicus, groins, perineum and in between the toes.
- Leave in contact with the skin for about 3 minutes.
- Rinse thoroughly and dry skin. Use a clean towel each day.
- Repeat daily for 5 days. It is only necessary to wash the hair on days 1 and 3 of treatment. Change clothes, particularly underwear, after each treatment.

2.10.4 USE OF CX POWDER IN ADULTS AND CHILDREN

CX powder (chlorhexidine 1%) is not currently available for use but may be used daily for skin disinfection, dust onto axillae, umbilicus and groin area after bathing. It should not be used in body cavities.

2.10.5 USE OF MUPIROCIN NASAL OINTMENT IN ADULTS AND CHILDREN

This should be applied 3 times a day to the inside of the nostrils by carefully using a cotton bud or the little finger (if patient applying themselves). Then press the sides of the nose together spreading the ointment throughout the nostrils.

It may be necessary to use an alternative preparation where microbiological sensitivity testing shows a culture to be resistant to Mupirocin or following 2 successive courses of treatment. The likely alternative is chlorhexidine hydrochloride 0.1% and neomycin sulphate 0.5% (Naseptin) nasal cream. Advice on the length of course may be sought from a member of the team, or of the pharmacy staff.

2.10.6 Patient Group Directions

Patient Group Directions are available in all clinical areas for:

Octenisan® skin cleanser:	DS/IC/01
Bactroban nasal ointment:	DS/IC/02
CX powder:	DS/IC/04

For further information see appropriate Patient Group Direction in your area's PGD folder or on the Pharmacy intranet page PGD Database and search for Drug Supply PGD by Infection Control.
http://wwrhwebdev03/pgd/ .

2.10.7 USE OF BODY WASHES & CX POWDER IN NEONATES

Octenisan® can be used neat on the skin of neonates.

Bathing

You will need:

- Warm room
- Baby bath of clean water
- A solution of Octenisan®
- Two towels

How to apply the treatment:

1. Place a towel under baby in cot / incubator; remove baby's clothing
2. Wet skin by placing baby in the water briefly
3. Lay baby back onto the towel and apply Octenisan® solution directly to wet skin using hands, a disposable cloth, sponge or cotton wool
4. Do not apply to the face or head
5. Pay special attention to skin creases including under the chin, under arms, umbilicus, nappy area and between toes
6. Wrap baby in the towel to keep warm and leave Octenisan® in contact with the skin for about 3 minutes
7. Check the temperature of the bath water
8. Place baby in the bath of water and rinse thoroughly
9. Dry baby thoroughly using a clean towel
10. If available, apply CX powder to the umbilicus using cotton wool. **DO NOT** sprinkle onto the baby directly from the tin to avoid baby breathing in any powder.
11. Repeat daily for 5 days or as advised by the Infection Control Team

For **pre-term or low birth weight neonates**, with paediatrician's consent, Octenisan® can be applied neat to the skin for neonates as for adults and children.

2.10.8 USE OF NASAL BACTROBAN IN NEONATES

This is not contraindicated, but the need for treatment should be assessed on an individual basis with a member of the Infection Control Team. Bactroban should be applied 3 times a day to the inside of the nostrils by carefully using a cotton bud. Then gently press the sides of the nose together spreading the ointment throughout the nostrils.

It may be necessary to use an alternative preparation where microbiological sensitivity testing shows a culture to be resistant to Mupirocin or following two successive courses of treatment. The likely alternative is chlorhexidine hydrochloride 0.1% and neomycin sulphate 0.5% (Naseptin) nasal cream.

2.10.9 Wound Care – Adults, children and Neonates

The use of topical antimicrobials is not routinely endorsed for treatment of wound infections, however, national guidelines recommend Bactroban for the management of small lesions (less than 3 cm diameter) infected with MRSA.

It is recommended that necrotic wounds be debrided prior to treatment with topical antimicrobials, to facilitate penetration.

Mupirocin 2% cream (not included in Staph Pack – obtain from Pharmacy) is indicated for the topical treatment of secondarily infected traumatic lesions.

Application of Mupirocin (Bactroban) Cream:

Using aseptic technique, apply a thin layer of cream or ointment to the affected area, once a day for 5 days. Frequency of use will be dependent on wound condition and type of dressing in use.

A dressing should be chosen which is appropriate for the wound to facilitate healing, ie a moist wound environment.

Examples of dressings / agents with antimicrobial properties effective against MRSA are:

- Iodoflex
- Inadine
- Silver based dressings
- Flamazine (by Doctor prescription only)

For further assistance please consult the Tissue Viability Nurse or refer to the wound care policy and leaflet. Mupirocin 2% and offer the patient a copy of the trust wound care leaflet.
Any antimicrobial dressings must be disposed of in the infectious waste stream (orange bag)
http://nww.worcsacute.nhs.uk/departments-a-to-z/infection-prevention-and-control/infection-control-ward-forms/#leaflets

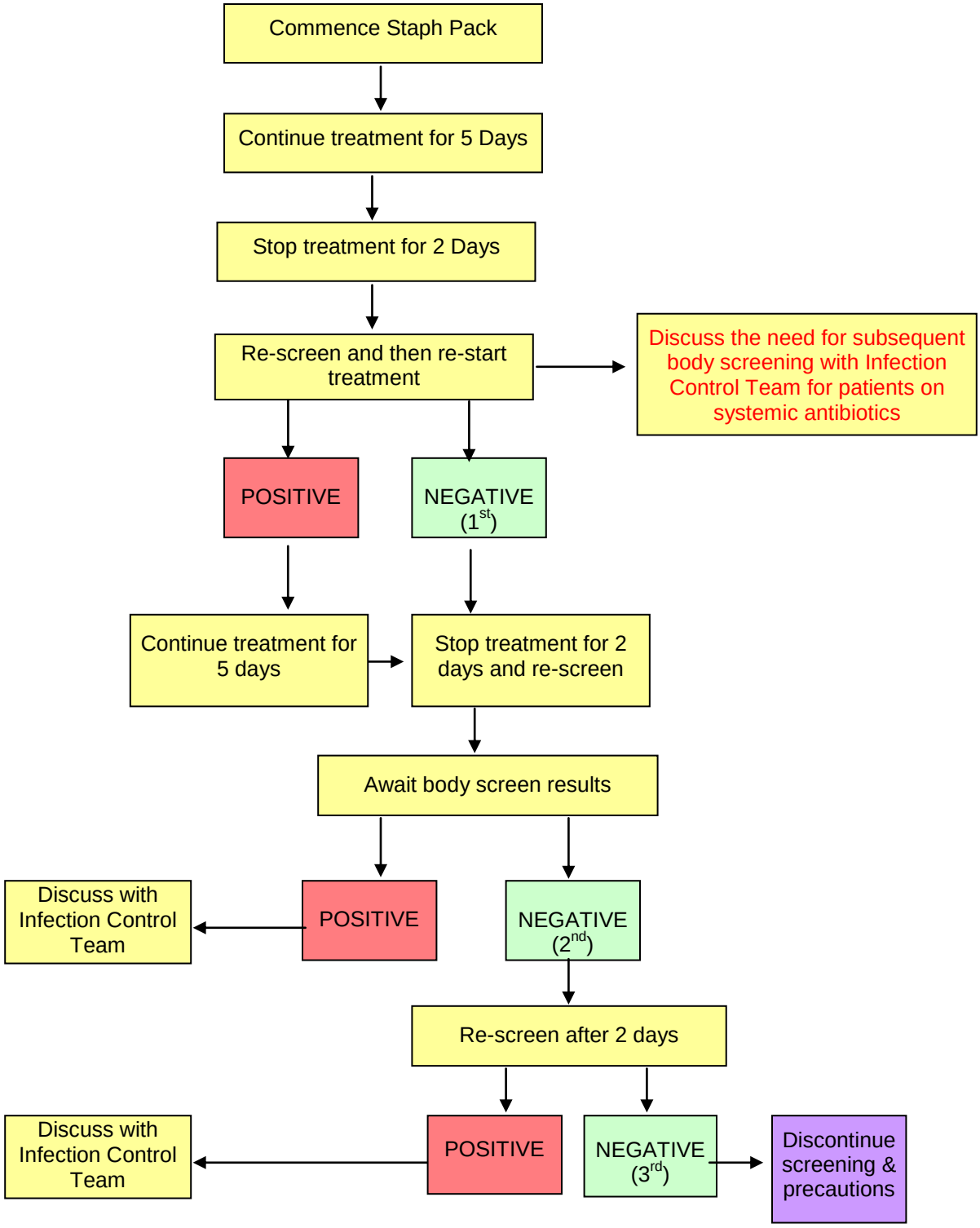
Treatment of PEG / IV sites:

Bactroban cream should be applied around infected IV sites daily for 5 days while the Staph pack is being used. CX powder, if available, not Bactroban cream, should be applied daily around MRSA positive PEG sites as directed by the Infection Control Team. An alternative application is a silver impregnated purpose desgned dressing such as Zonis ® Silver Alginate -Catheter Exit Site Dressing.

Documentation of Treatment

The Trust MRSA Care pathway should be commenced for any inpatient with a laboratory confirmed MRSA positive result. This includes the daily record sheet of topical treatment (Staph Pack Record Sheet) which should be maintained by the nurse in charge of the patient care (it is acknowledged care assistant grades can document on this form when they have used the Staph Pack as per Clinical Record Keeping Policy WAHT-CRK-08)

2.10.10 Flow Chart Showing Use of Staph Pack



Please note patients on Critical care and HDU are washed routinely with Octenisan

2.11 TRANSFER AND DISCHARGE OF PATIENTS

To other wards and departments:

The routine transfer of patients with known MRSA colonisation or infection to other wards or departments within each hospital site and between sites is to be discouraged. Where transfer is necessary, a risk assessment should be done in conjunction with the Infection Control Team.

Patients can go to other wards and departments for treatment, dependant on MRSA carriage sites and the intervention being performed. For example:

- A patient with wound carriage only, where the wound is covered with an occlusive dressing, may attend Physiotherapy Department without posing a cross infection risk to others.
- A patient who is MRSA sputum positive, with a productive uncontrollable cough, should not be moved between departments without prior discussion with the Infection Control Team.
- appropriate protective clothing and precautions required for transfer.

To other hospitals:

This will be dependent on the receiving hospital's admission criteria and availability of appropriate accommodation. Discuss with Infection Control Team prior to planning transfer, as body screening results may be required prior to acceptance.

NB: It may take several days to obtain these results.

Transport by ambulance personnel:

If the patient has to be transported by ambulance, MRSA is classified as an ambulance "Category One" and ambulance personnel are not at risk. If the patient has skin lesions, these should be covered with an occlusive dressing. Patients may be transported with other patients, but not with patients going to or from high-risk areas of the hospital. Gloves and aprons should be worn by staff as per Infection Control Precautions - see **2.9**. Very occasionally a heavy disperser of MRSA may need to be transported alone; advice should be sought from the Infection Control Team. The hands of ambulance personnel should be disinfected with alcohol hand rub after transport is completed. The ambulance does not require cleaning after transport of patients with MRSA.

On discharge:

Inform the GP, District Nurse or other care staff as appropriate of the MRSA precautions required. Any concerns over the level of isolation required should be discussed with the Infection Control Nurse.

On death of a Patient with MRSA: refer to WR1998 Infection Control Notification of deceased Patients or End of Life Pathway
No need to use body bag
Viewing is allowed

Cleaning of the isolation room or bedspace

MRSA requires a level of disinfection. An amber (bleach) clean will be a minimum requirement, any higher level of cleaning will be advised by the Infection Prevention and Control Team.

2.12 MANAGEMENT OF STAFF & MRSA

Staff should not be screened for MRSA without prior arrangement with the Infection Control or Occupational Health Teams.

A decision regarding suitability to continue working will be made on an individual risk assessment in conjunction with the Infection Control Team. Factors for consideration include:

- MRSA positive sites
- If the person works in a high risk area or with high risk patient group

NB – ICE requesting of staff screening swabs will not be possible if they are not a registered patient within the Trust. Requests for MRSA screening for staff needs to be processed on hard copy microbiology request forms.

Treatment and Follow up

A decision to treat and need for systemic or topical treatment will again be assessed by the Infection Control Team in conjunction with Occupational Health Department on an individual basis and be dependent on the factors indicated above. Treatment will be provided free of charge on an outpatient prescription.

Subsequent screening swabs will be arranged through the Occupational Health Department.

2.13 AUDIT AND OUTCOMES

Aspects of the protocol will be audited and reported to the Trust Infection Control Committee on an annual basis as part of the annual Infection Control Audit Programme and Work Plan using;

- the Infection Prevention Society Quality Improvement Tool Clinical Practice Process Improvement Tool Isolation Precautions,
- Root Cause Analysis investigation of any Trust Attributable MRSA Blood Stream Infections
- Proactive audit/review of all inpatients with MRSA through weekly patient reviews of known MRSA patients by Infection Prevention and Control Nurses. Any deviance from the protocol will be reported to the Ward sister and Matron at the time of the occurrence and monitored for correction through routine patient reviews.

Divisional Teams will also be expected to agenda and discuss audit results reporting any relevant learning points and action plans via their Divisional Reports to TIPCC to assure the Trust compliance is achieved.

2.14 REFERENCES

Department of Health (2009) Code of Practice for the NHS on the prevention and control of healthcare associated infections and related guidance: Department of Health.

Joint working Party of the BSAC, HIS & ICNA Guidelines for the control and prevention of Meticillin resistant *Staphylococcus aureus* (MRSA) in healthcare facilities. Journal of Hospital Infection:2006,63S;S1-44.

Pratt RJ, Pellowe C, Wilson JA, Loveday HP, Harper PJ, Jones SRLJ, McDougall CM, Wilcox MH. (2007) Epic2: National Evidence Based Guidelines for preventing Healthcare-Associated Infection in NHS Hospitals in England. Journal of Hospital Infection. 65 (1) Supplement 1.

Screening for Meticillin resistant *Staphylococcus aureus* (MRSA) colonisation: A strategy for NHS Trusts: a summary of best practice.

Worcestershire Acute Hospitals NHS Trust Infection Control Isolation Policy Section C Protocol 13.

WAHT-INF-006 Protocol for Admission Screening Meticillin Resistant *Staphylococcus aureus* (MRSA) Including Elective, Non-Elective, Orthopaedic and Vascular Surgery

2.15 APPENDIX 1 RECORD OF USE OF STAPH PACK FOR SKIN DECOLONISATION

A Staph Pack may be issued immediately a positive result is known by a Registered Nurse using supply PGDs reference DS-IC-01, 02 and 04

Please attach patient sticker here or record: *Name:*…… *NHS No:* ☐☐☐☐☐☐☐☐☐☐ *Unit No:* ☐☐☐☐☐☐☐☐☐☐ *D.O.B:* …… *Male* ☐ *Female* ☐ *Consultant:*	5 days treatment with staph pack **Nasal Bactroban** - Apply 3 x day using a cotton bud or gloved finger. Patient can apply if able. Apply **Octenisan®l** neat on to wet skin with a clean cloth and leave in contact for 3 mins. Use 2 x weekly as a shampoo. **Cx Powder** – dust armpits, belly button and groin after Octenisan®l .	No treatment	Swab ↓ then restart staph pack and await results	Obtain results. If any body screen sites are Positive = continue this chart Negative = stop staph pack and follow chart below	No treatment	Swab ↓	No treatment	Obtain results. If any body screen Positive = contact Infection Control Negative = follow chart below
Date								
Nasal Bactroban TDS								
Daily Octenisan®l Wash (shower if possible)								
Daily CX Powder								
Twice Weekly Octenisan®l Hair Wash								

Following 1st negative screen – use chart below. **NB: Contact Infection Control if any 2nd or 3rd screen body swabs are MRSA positive**

	No treatment	Swab ↓	No treatment	Obtain 2nd negative screen result Swab	No treatment	Obtain 3rd negative screen result	Discontinue screening programme and precautions
Date							

To be kept with patient drug card whilst in use then filed in Patient Medical Records
For PGD Supply of 'Staph Pack' – Record the supply on the regular section of the prescription chart and not PGD section

WORCESTERSHIRE ACUTE HOSPITALS NHS TRUST
MRSA SCREENING SWAB RESULTS

NAME: ..... **DOB:** ..... **WARD:** ..... **HOSPITAL NO:** .....

BODY SCREEN SITE	**1** Date + Result	**2** Date + Result	**3** Date + Result	**4** Date + Result	**5** Date + Result	**6** Date + Result	**7** Date + Result	**8** Date + Result
Nasal								
Axilla								
Groins/Perineum								
Urine								
Wound (State)								
Other (State)								

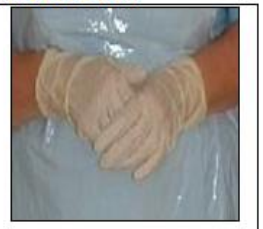
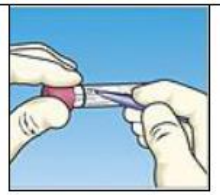
INITIAL ISOLATE LAB NO: ..... **SITE:** .....

2.16 APPENDIX 2 18 step guide to taking an MRSA screen using charcoal swabs

PULL TOGETHER TO PREVENT INFECTION

Worcestershire NHS
Acute Hospitals NHS Trust

18 Step Guide to taking MRSA Screening Swabs using individual charcoal swab

Procedure ONLY to be used by staff trained to take samples					
STEP 1 Identify if patient requires MRSA screening.	**STEP 2** Collect equipment; Charcoal swabs x 2 plus additional sites, 10mls vial of sterile Saline or water for injection in a clean tray. ICE or blue request form	**STEP 3** Check all items to be used are within expiry date	**STEP 4** Explain the procedure to the patient and prepare them for sampling	**STEP 5** Prior to beginning the procedure wash hands with soap and water or disinfect hands using sanitising gel.	**STEP 6** Don an apron and gloves. NB wearing gloves immediately before swabbing will minimise the risk of contamination from the operator's skin
					
STEP 7 Open ampoule of saline/water and place in the procedure tray.	**STEP 8** Carefully open the swab packet. Either remove the tube and place it onto a clean tray/ stable surface OR hold packaging between finger and thumb.	**STEP 9** Pour 2 – 3 drops of sterile saline 0.9% or water for injection from ampoule into the pouch along the shaft of the swab to moisten the end.	**STEP 10** Alternatively drip 2/ 3 drops of saline directly onto swab taking care not to touch swab anywhere other than the black handle OR dip the swab into the black transport gel before use.	**STEP 11** Gently insert the swab tip into the anterior nares of nose. Rotate several times against the mucosal surface. Repeat using the same swab for the other nostril.	**STEP 12** Remove cap on transport gel tube and insert swab into gel without touching the opening of the tube. Firmly locate the black handle of the swab onto the end of the tube.
					REFER TO IPC INTRANET PAGE 
STEP 13 Repeat step 10 then Firmly stroke the moistened swab against the groin area	**STEP 14** Repeat step 12 with the groin swab	**STEP 15** Send a CSU if urinary catheter in situ and swab any other wounds or lesions (e.g. exfoliating skin condition) following steps 10 - 12	**STEP 16** Ensure that patient details are labelled clearly on the tube – it is acceptable to use a small patient ID label.	**STEP 17** Ensure both the patient details and specimen request forms or ICE request are fully completed, as unlabelled specimens will not be processed.	**STEP 18** Document screening swabs taken in patient's medical record or if subsequent screen on table on the back of the 2 week record of use of staph pack for skin 'decol' with nasal Bactroban or Naseptin

FOR FURTHER INFORMATION PLEASE CONTACT THE INFECTION PREVENTION TEAM ON EXTN 44744 OR 38752

MRSA Copan eswab poster H.Gentry. 09/10/2017 final v1

2.17 CONTRIBUTION LIST

Key individuals involved in developing the document

Name	Designation
Dr Chris Catchpole	Consultant Microbiologist
Heather Gentry	Lead Infection Prevention and Control Nurse
Tracey Fell	Infection Prevention and Control Nurse
Susan Pitts	Infection Prevention and Control Nurse
Barbara Todd	Occupational Health Nurse Manager
Caroline Newton	Housekeeping Manager Alexandra and Kidderminster sites

Circulated to the following individuals for comments

Name	Designation
	Members of TIPCC
Dr Mary Ashcroft	Consultant Microbiologist
Dr Thekli Gee	Consultant Microbiologist
Dr Emma Yates	Consultant Microbiologist
Elaine Bethell	Lead Nurse Tissue Viability
Astrid Gerrard	Antimicrobial Stewardship Pharmacist
Jennifer Garside	Divisional Head of Nursing Medical
Sarah King	Divisional Director of Nursing Surgical
Faye Baillie	Divisional Director of Nursing Women and Children's
Alison Harrison	Divisional Director of Nursing Specialised Clinical Service
Julie Kite	Divisional Director of Nursing Urgent Care
Stephanie Beasley	Divisional Director of Nursing Urgent Care
Amanda Moore	Matron Kidderminster Treatment Centre/Tenbury Hospital
David Hill	Radiology Manager Trust wide
Martin Long	Head of Facilities, PFI and Contracts

Circulated to the chair of the following committees / groups for comments

Name	Committee / Group
Vicky Morris	DIPC/ Chair Trust Infection Prevention & Control Committee

Supporting Document 1 – Checklist for review and approval of key documents

This checklist is designed to be completed whilst a key document is being developed / reviewed.

A completed checklist will need to be returned with the document before it can be published on the intranet.

For documents that are being reviewed and reissued without change, this checklist will still need to be completed, to ensure that the document is in the correct format, has any new documentation included.

1	Type of document	Protocol
2	Title of document	PROTOCOL FOR THE MANAGEMENT OF Meticillin Resistant *Staphylococcus aureus* (MRSA)

3	Is this a new document?	Yes ☐ No ☒ If no, what is the reference number WHAT-INF-003
4	For existing documents, have you included and completed the key amendments box?	Yes ☒ No ☐
5	Owning department	Infection Prevention and Control
6	Clinical lead/s	Dr Anne Dyas Consultant Microbiologist Heather Gentry Lead IPCN
7	Pharmacist name (required if medication is involved)	Alison Smith Principal Pharmacist
8	Has all mandatory content been included (see relevant document template)	Yes ☒ No ☐
9	If this is a new document have properly completed Equality Impact and Financial Assessments been included?	Yes ☐ No ☐ **N/A**
10	Please describe the consultation that has been carried out for this document	Members of TIPCC Matrons Clinical Leads
11	Please state how you want the title of this document to appear on the intranet, for search purposes and which specialty this document relates to.	Infection Prevention and Control Protocol for Management of MRSA
Once the document has been developed and is ready for approval, send to the Clinical Governance Department, along with this partially completed checklist, for them to check format, mandatory content etc. Once checked, the document and checklist will be submitted to relevant committee for approval.		

Implementation

Briefly describe the steps that will be taken to ensure that this key document is implemented

Action	Person responsible	Timescale
Launch to Matrons at Senior Nurses Meeting, Ward Sisters and Infection Prevention Link Nurses at their relevant meetings for wider dissemination to ward and departmental nursing staff	Associate Chief nurse, IPC	November 2017
Launch to all clinical staff through Trust Brief	Lead IPC Nurse	December 2017
Launch to all medical colleagues via Clinical Directors and presentation at relevant speciality audit meetings if requested	Consultant Microbiologist	December 2017

Plan for dissemination

Disseminated to	Date
Instruction to all clinical staff of revised protocol via weekly Trust Brief.	Once ratified at TIPCC on 13/10/2017
Ward and departmental based clinical staff via Infection Prevention Link Nurses	October Link Nurse dates
Updated protocol to be made available via IPC intranet site	Once ratified at TIPCC on 13/10/17

1	**Step 1 To be completed by Clinical Governance Department** Is the document in the correct format? Has all mandatory content been included? Date form returned -	 Yes ☒ No ☐ Yes ☒ No ☐
2	Name of the approving body (person or committee/s)	TIPCC
	Step 2 To be completed by Committee Chair/ Accountable Director	
3	Approved by (Name of Chair/ Accountable Director):	Vicky Morris
4	Approval date	

Please return an electronic version of the approved document and completed checklist to the Clinical Governance Department, and ensure that a copy of the committee minutes is also provided.

Office use only	Reference Number	Date form received	Date document published	Version No.
	WAHT-INF-003			5