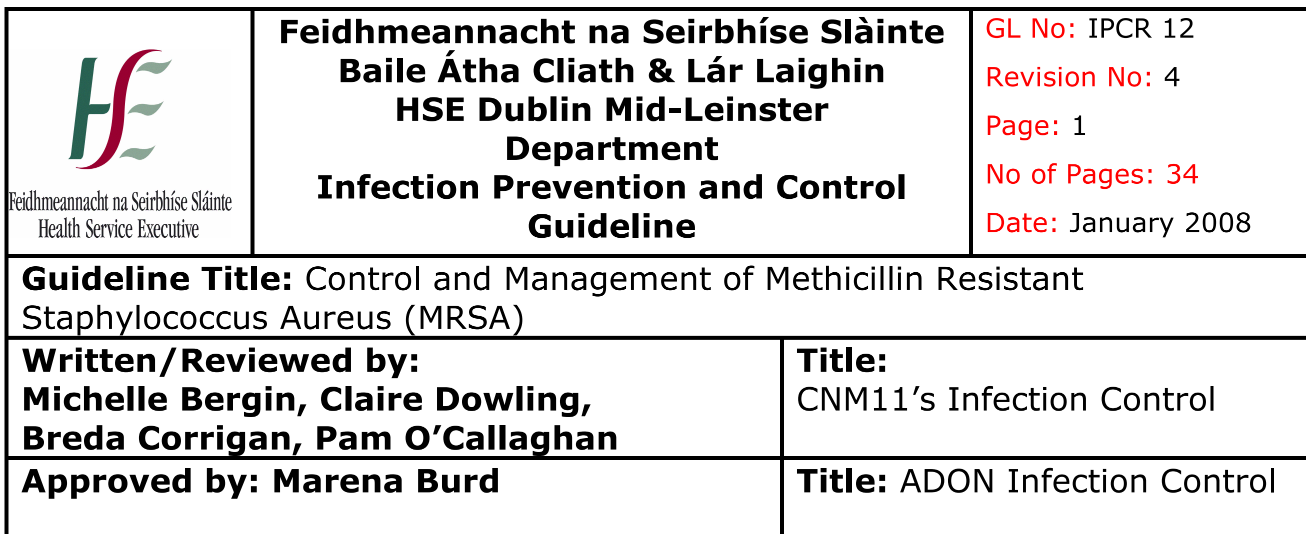

Feidhmeannacht na Seirbhíse Slàinte Health Service Executive	**Feidhmeannacht na Seirbhíse Slàinte Baile Átha Cliath & Lár Laighin HSE Dublin Mid-Leinster Department Infection Prevention and Control Guideline**	GL No: IPCR 12 Revision No: 4 Page: 1 No of Pages: 34 Date: January 2008
Guideline Title: Control and Management of Methicillin Resistant Staphylococcus Aureus (MRSA)		
Written/Reviewed by: Michelle Bergin, Claire Dowling, Breda Corrigan, Pam O'Callaghan	**Title:** CNM11's Infection Control	
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1.0 Purpose

2.0 Scope

3.0 Definitions and Abbreviations

M.R.S.A. stands for **M**ethicillin-**R**esistant **S**taphylococcus **a**ureus.

M.S.S.A *stands for* **M***ethicillin* **S***ensitive* **S***taphylococcus* **a***ureus which is* a bacterium that can reside on the skin or can be found in the nose of about one third of healthy individuals. Generally it causes no harm but it may colonise or infect pressure sores, varicose ulcers or surgical wounds occasionally it may cause skin infections, such as boils or impetigo. **M.S.S.A.** can also cause more serious illness, if it gains access to the blood stream, leading to bacteraemia, or to the lungs, causing, for example, ventilator-associated pneumonia.

Early penicillin antibiotics such as Flucloxacillin were effective in the treatment of **M.S.S.A**.*infections* but since the late 1960's many strains have become resistant to commonly used antibiotics. As Methicillin was amongst the first antibiotics used to treat M.S.S.A. infections, these bacteria subsequently developed resistance and became known as **M.R.S.A.**

M.R.S.A. colonisation: The term colonisation refers to the presence of bacteria without a tissue reaction.

M.R.S.A. infection: The term infection refers to the deposition and multiplication of bacteria e.g. MRSA in tissues or on surfaces of the body with an associated tissue reaction.

Healthcare Worker	(HCW)
Personal Protective Equipment	(PPE)

4.0 Responsibility

5.0 Guideline

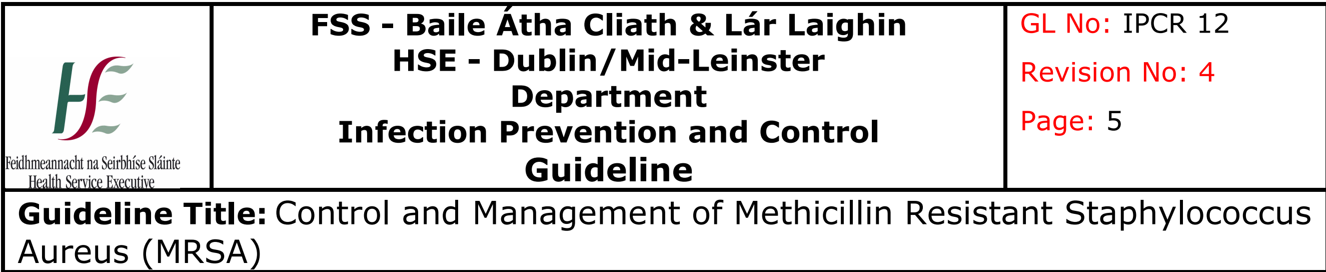
CONTROL OF M.R.S.A. IN ACUTE HOSPITAL WARDS, INCLUDING SPECIALIST UNITS

5.1 Patient Management

- It is the responsibility of the patient's consultant/team to inform the patient/relative of their M.R.S.A. diagnosis.
- When a patient is identified with M.R.S.A. liaise with the Infection Control Nurse.
- Advice regarding patient management and precautions required should be given by the Nurse in charge to staff and visitors.
- **Hand Hygiene is the most important and effective method of preventing the spread of M.R.S.A.. Consultants and Nurse Managers must insist on adherance to hand hygiene procedures by all staff**.
- Perform hand hygiene before and after each patient contact and after removal of PPE.
- An individual assessment of the medical and infectious condition of each patient will dictate whether isolation is required

- Isolation is **not** essential to prevent the transmission of MRSA, however contact precautions are achieved to a higher standard when patients are accomodated in isolation.

- The door of the isolation must be kept closed at all times and appropriate signage displayed Refer to appendix 9.1 Isolation Room Door Sign
- **Personal Protective Equipment (PPE)**
- Wear a clean plastic apron and gloves if having direct contact with the patient, their secretions/excretions, linen and their environment.
- Where major physical contact is required, it is advisable to wear a disposable, impermeable gown, covering arms instead of an apron



- Standard surgical masks are required for tracheal suctioning and/or for chest physiotherapy with M.R.S.A. in sputum and also when performing dressings on patients with extensive burns or lesions.

Movement/Transfer of Patient to other Departments

- Postpone elective surgical procedures until the patient is considered non-infectious if not contra-indicated.

- Patient movement from the room should be minimised to essential purposes only

  N.B. Patients colonised/infected with MRSA should be allowed to leave their room for rehabilitation.

- Inform the staff of other departments **before** movement/transfer of the patient

- On movement to other departments the patient should be attended to promptly and then returned directly to his/her room.

N.B. Visitors do not require protective clothing. Advice should be given on hand hygiene before and after visiting the patient.

5.2 Before leaving the affected patient's room or bedside

- Remove gloves and apron and dispose into Healthcare non-risk waste (BLACK) bag unless blood stained, then place into Healthcare Risk Waste (YELLOW) bag, inside the room where possible.

- Place linen contaminated with blood of body fluids into a water-soluble/alginate bag, which is then placed in RED/Contaminated laundry bag/skip.
- Used, uncontaminated linen is placed into a WHITE laundry bag/skip.
- Before entering and on leaving the room or bedside perform hand hygiene.

5.3 MANAGEMENT OF THE PATIENT'S ENVIRONMENT

Daily Cleaning of Isolation room

- **Vacuum cleaners** may be used in isolation rooms, however they:
  - Must be fitted with HEPA filters
  - Must be serviced and HEPA filters replaced regularly
  - Must have records kept of service and filter changing

- Clean all horizontal surfaces, with general purpose detergent and hot water using colour coding system i.e. yellow basin and disposable yellow cloth.
- Wash floor with the floor cleaning product and yellow bucket and yellow mop handle or change mop if using the flat mop system
- Clean patient equipment with general purpose detergent and hot water. Keep all equipment in the patient's room/area for his/her sole use where possible, e.g. stethoscopes and blood pressure devices.
- A disposable blood pressure cuff **or** a designated blood pressure cuff for isolation purposes, which is cleanable with a detergent wipe should be used.
- A designated stethoscope which is cleaned after each use with 70% alcohol wipes(Alco wipes).
- Electrical equipment, including TV remote control units, portable telephones and patient call bells should be damp dusted with 70% alcohol wipes(Alco wipes).

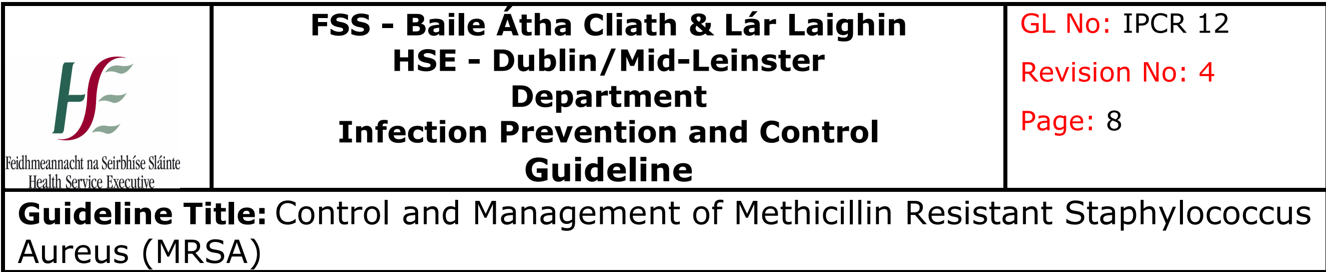
- All charts should be kept outside the patient's room/area where possible.
- No specific precautions are necessary for crockery and cutlery from a patient with MRSA if a dishwasher is available.
- If no dishwasher is available, they should be washed with hot water and detergent, dry with disposable paper towel and keep for use by that patient.

Note: Disinfection with Precept is NOT required on a daily basis

Terminal Clean of Isolation room on Patient transfer or discharge

- On the patient's transfer or discharge bed curtains/screens and bed linen/duvets should be sent for laundering.
- Wash all surfaces, furniture, equipment, bed frame, mattress covers and pillows with general purpose detergent.
- Followed by disinfection with Precept solution 1:1000 ppm (2 X 2.5 gram tablets dissolved in 2.5 litres of water) freshly made up and discard after use.
- Wash floor with designated floor cleaning detergent and then disinfect with Precept solution 1:1000 ppm.
- It is not necessary to change window curtains routinely.
- Window blinds must be washed and disinfected where applicable.
- The room may be used immediately.

After cleaning, incubators should be disinfected with Precept 1:1000ppm, left for 30 minutes and then rinsed off with detergent and water.



Daily Cleaning of Patients bed-space when patient in open ward.

- Clean this patient's bed-space last.
- Clean all horizontal surfaces, with general purpose detergent and hot water.
- Wash floor with designated floor cleaning detergent.
- Clean patient equipment with general purpose detergent and hot water.
- Launder cleaning cloths and mops or dispose after single use
- Use BLUE bucket and mop handle, but water and mop head must be changed after use in this bed space.

Terminal Cleaning of bed-space on Patient transfer or discharge

- On the patient's transfer or discharge bed curtains/screens and bed linen/duvets should be sent for laundering.

- Wash all surfaces, furniture, equipment, bed frame, mattress covers and pillows with general purpose detergent.

- Followed by disinfection with Precept solution 1:1000 ppm (2 X 2.5 gram tablets dissolved in 2.5 litres of water) freshly made up and discard after use.
- Wash floor with designated floor cleaning detergent and then disinfect with Precept solution 1:1000 ppm.
- It is not necessary to change window curtains routinely.
- Window blinds must be washed and disinfected where applicable.
- The bed-space may be used immediately

5.4 PATIENT SCREENING

An MRSA screen consists of samples from nose, groin and any skin breaks, using 1 swab for both nostrils and 1 swab for both groins.

Axillae are no longer screened

- For adults and children, take screening swabs from: **(do not repeat site already identified)**
  - Anterior Nares (both sides, using 1 swab only)
  - Perineum or Groin (not both), if from groin, use **1** swab only.
  - Any wound or skin condition e.g. eczema
  - Sputum (if present)
  - CSU if catheterised.

- For Infants/neonates in **special care baby units**, take screening swabs from:
  - Nose
  - Umbilicus until healed
  - Perineum

Patients who should be screened for MRSA include

- Patients known to be previously positive and who are being re-admitted to hospital.
- Patients admitted from another hospital or health care facility.
- During an outbreak as determined by the infection control nurse.

- Patients with signs of infection in wounds and ulcers

  N.B. Before taking wound swab remove exudate by cleaning wound with normal saline

- Patients due to undergo elective high-risk surgery, e.g. Cardio-thoracic/Orthopaedic implant surgery.
- Weekly screening in High Risk areas e.g. Intensive Care Unit (ICU)/Special Care Baby Unit (SCBU).
- Mothers of positive infants and infants of positive mothers may require screening in consultation with Infection Control Nurse/G.P.

- **N.B. There is no rationale for screening prior to discharge home or to long stay units or nursing homes**.

MRSA IS NOT A REASON TO REFUSE ADMISSION FROM AN ACUTE HOSPITAL, OTHER INSTITUTION OR FROM THE COMMUNITY

5.5 Admission to the acute hospital of a patient with M.R.S.A.

- The responsibility is on the referring doctor to inform the admitting hospital of the patient's MRSA status.
- Inform an Infection Control Nurse and/or Consultant Microbiologist.
- Admit to a single room, if available, or place patient away from other patients at high risk until screening swabs are negative. Examples of high-risk patients include ventilated, tracheotomy, all those with surgical wounds, skin lesions, central venous catheter (CVC), drains, tubes and urinary catheters.
- Send screening swabs as appropriate.
- Explain the reason for this procedure to the patient/relatives and/or parents where relevant.

- Following the identification of patients with MRSA, single room isolation will be required for patients in the following areas:
  - Intensive Care,
  - Special Care Baby Units,
  - Surgical,
  - Orthopaedics,
  - Gynaecology,
  - Maternity
  - ENT.
  - Patients who are very ill
  - Sputum carriers
  - Patients with exfoliate conditions
  - Patients awaiting high-risk surgery e.g. Cardio-thoracic/Orthopaedic surgery.

- If there are two or more MRSA positive patients, they may be co-horted in a designated area.
- Inform relevant departments prior to any procedure, e.g. operating theatres, x-ray, physiotherapy.
- Accompanying staff DO NOT require gloves and apron.
- The movement of patients with M.R.S.A. within the hospital should be kept to a minimum.
- Patients colonised/infected MRSA should be allowed to leave their room for rehabilitation
- Ensure that the patient/relatives understand MRSA and it's implications, and that reassurance is offered and they are provided with the leaflet, ***MRSA: information for the Patients and Visitors 2006.***
- Tag all charts as soon as MRSA is identified.

5.6 SCREENING DURING OUTBREAKS (Patients and staff)

Following the advice of Infection Control Nurse/Microbiologist

Screening

Initially nasal swabs only, if positive screen as above.

- For a newly identified case of MRSA in ICU, SCBU, screen all patients in that area.
- If there is another positive case, screen medical, nursing and the Allied Medical Professionals. Other staff may also require screening at the discretion of the Infection Control/Nurse/Team.
- Increase cleaning measures in the area.
- If two or more patients are newly identified with M.R.S.A. within a two week period in medium risk areas, (e.g. Surgical/Obstetric Deptartments) screen surgical/obstetric team, other health care staff and patients at discretion of the infection control Nurse
- If two or more patients are newly identified with MRSA in a low risk area e.g. Medical or Care of the Elderly wards, liase with Infection Control Nurse.
- Discharge patients as soon as possible.

5.7 TREATMENT OF PATIENTS WITH MRSA COLONISATION/INFECTION

- Some antiseptics suitable for skin and body disinfection and treatment of carriage sites are listed in Appendix 9.1. This table must be consulted for additional comments.
- **Decolonisation treatment should <u>not</u> commence until the results of screening swabs are available as this predisposes to the emergence of resistance.**
- **N.B. Only treat positive sites as per Microbiology Laboratory results**

5.7.1 Neonates/Infants (birth to 3 months)

Neonates after consultation with a Consultant Paediatrician

N.B. Only treat positive sites as per Microbiology Laboratory results

Treatment/Decolonisation

- **Nose MRSA positive**

  Mupirocin (Bactroban) Nasal Ointment three times per day for 5 days
- **Groin MRSA positive**

  Octenisan antimicrobial body wash lotion instead of soap/bath solution for full body washing daily for 5 days. (See Appendix 9.5).
- **Skin folds-** e.g. axilla, groin, elbow joints and behind knees,

  Apply CX Powder sparingly once daily after shower for 5 days.

Procedure for using Octenisan:

- Wet the skin
- Apply Octenisan to disposable cloth
- Wash body with Octenisan and observe a contact time of 3 minutes.
- Rinse off all of the Octenisan.
- Dry body with a clean towel (Change towel daily).
- Ensure that hair is washed with Octenisan on Day 2 and 4

Additional procedures:

- Change wash cloths, towel, cot/incubator linen and clothing daily for the duration of treatment
- Send to laundry as per normal laundry guidelines

Umbilicus MRSA positive

- Clean umbilicus with 70% alcohol (Surgical spirit) and allow to dry.
- Sparingly apply Chlorhexidine acetate 1% (CX powder) daily for five days or up to three times daily at nappy change

This is a controlled document and may be subject to change at any time.

If more than one site is positive Octenisan, Bactroban and CX powder should commence on the same day and must all be prescribed in the patient's Medication Record.

5.7.2 Neonates/Infants Repeat screening (nose, umbilicus and perineum) and follow-up

Step 1 Re-screen on the third day following completion of treatment.

Step 2 If any sites remain positive treat positive sites only.

Step 3 Re-screen on the third day following 2nd treatment. If any sites remain positive contact the Infection Control Nurse.

Step 4 If in step 2 the screen results are negative, re-screen for 3rd time.

5.7.3 Children & Adults Treatment/Decolonisation

Nose MRSA positive

Mupirocin (Bactroban) Nasal Ointment three times per day for 5 days

Groin MRSA positive

Octenisan antimicrobial body wash lotion instead of soap/bath/shower gel for full body washing daily for 5 days. (See Appendix 9.5).

Skin folds- e.g. axilla, groin, under breasts, elbow joints and behind knees,

Apply CX Powder sparingly once daily after shower for 5 days.

Procedure for using Octenisan

- Wet the skin
- Apply Octenisan to disposable cloth
- Wash body with Octenisan and observe a contact time of 3 minutes.
- Rinse off all of the Octenisan.
- Dry body with a clean towel (Change towel daily).

- Ensure that hair is washed with Octenisan on Day 2 and 4

If more than one site is positive Octenisan, Bactroban and CX powder should commence on the same day and must all be prescribed in the patient's Medication Record.

Additional procedures:

- Change wash cloths, towels, bed linen, nightwear and clothing daily, after body washing, during treatment
- Send to laundry as per normal laundry guidelines.

5.7.4 Children & Adults - REPEAT SCREENING AND FOLLOW UP:

Step 1 Re-screen on the third day following completion of treatment.

Step 2 If any sites remain positive treat positive sites only.

Step 3 Re-screen all sites on the third day following 2nd treatment. If any sites remain positive contact the Infection Control Nurse.

Step 4 If in step 2 the screen results are negative, re-screen for 3rd time.

- Repeat screening specimens two days following the end of treatment (no sooner) and on two additional occasions, leaving at least a 4 day interval between screens.
- Continue isolation and/or contact precautions until three consecutive sets of screening swabs are negative or in consultation with the Infection Control Nurse.
- If screening specimens remain positive after first treatment, repeat treatment and re-screen. In the event that screening specimens remain positive after

second treatment, **do not** re-treat. Consult the Infection Control Nurse or Consultant Microbiologist

- In acute hospitals if the patient receives antibiotics subsequently repeat full screening procedure two days after antibiotics are discontinued, as additional antibiotic therapy may cause re-emergence of MRSA.
- Repeat full screening procedures on re-admission.

5.7.5 Skin lesion e.g. minor wounds, minor ulcers etc.

Apply Mupirocin 2% (Bactroban) ointment, daily for 5 days, after consultation with the patient's clinician and after appropriate wound toilet.

Note: Risk of renal toxicity with Mupirocin, must be prescribed by doctor and is contra-indicated during pregnancy and lactation.

5.7.6 Major wounds, Critically colonised/infected e.g. leg ulcers

Consult with a doctor or nurse specialist in wound care for advice on choice of dressing products e.g. Acticoat, Betadine/Inadine tulle.

5.7.7 PEG and tracheostomy sites

Clean with 0.05% Chlorhexidine (Unisept)

Mupirocin (Bactroban) 2% is contraindicated as is can damage the plastic tubing.

5.8 Surgery

- Postpone elective surgical procedures until the patient is considered non-infectious if not contra-indicated.

- In conditions where staphylococcal prophylaxis is indicated, consult the Microbiologist or Antibiotic Pharmacist, consider using a prophylactic glycopeptide (e.g. I.V. Vancomycin).
- Cover all lesions with an impermeable dressing.
- Place the patient last on theatre list (if possible).
- All excess equipment should be removed from the operating theatre prior to surgery.
- Theatre Staff – Scrubs and attire must be changed after handling infected or colonised cases.
- On the patient's transfer, cleaning must be followed by disinfection with **Precept 1: 1000** ppm (see dilutions poster).
- Linen should be sent to the laundry as per linen guidelines.
- **The theatre may then be used immediately.**

5.8.1 RECOVERY ROOM

- Patient may be nursed in the recovery room, but must have a dedicated nurse.
- If the patient is colonised at a wound site only, ensure this site is covered with an impermeable dressing.

5.9 Patient Discharge

- When discharging a patient with a history of MRSA to any hospital or Community Care unit, the hospital/Community Care unit should be notified in advance of discharge.
- The Medical and Nursing discharge letters should include the MRSA status of the patient, and treatment received or required.
- MRSA Discharge / Transfer Notification Form must be completed. (see appendix 9.2, page 27)
- MRSA carriage is not a reason to delay discharge to nursing homes, special hospitals or to the patient's family home.
- MRSA should not be a reason for refusing to accept a patient back to the referring hospital.

5.10 Ambulance transport:

- There is no evidence that ambulance staff are at risk when transporting patients with MRSA.
- Ambulance staff should be informed that the risk of MRSA spread is not to themselves but to other susceptible patients using the ambulance.
- Patients colonised with MRSA may be transported with other patients as normal. Ensure wounds are covered with impermeable dressing and adhere to good hand hygiene practice.
- Ambulance staff should observe the same ambulance cleaning precautions as for all patients.
- Ambulance staff should perform hand hygiene after contact with a patient who has MRSA.
- Glove usage must be adhered to as per standard precautions, i.e. when handling blood, body fluids, broken skin and mucous membranes.
- Blankets and linen in contact with the patient should be laundered, in the normal way following single patient use.

5.11 Out-patient visits

- Inform Department manager of patient's MRSA status
- Accompanying staff DO NOT require gloves and apron.
- Patient should be attended to promptly
- Ensure that all HCWs perform hand hygiene before and after contact with the patient and on removal of PPE .
- Cleaning followed by disinfection is required especially after clinics where patients have wounds exposed e.g. leg ulcer clinics.

5.12 Death:

No special precautions are required when a patient dies. The precautions taken when laying-out patient remains should be the same as those taken for other deceased patients (e.g. lesions should be covered with an impermeable dressing).

5.13 Healthcare Workers (HCW)

These guidelines will help to prevent carriage among HCWs and should be implemented in liaison with the Infection Control Nurse and Microbiologist.

- Hand hygiene is the most effective method of preventing the spread of MRSA
- HCWs with exfoliative or pustular skin conditions should not, if possible, nurse patients with MRSA.
- In health care setting, any exfoliative/pustular skin lesion should be reported to the supervisor who will advise if any further management is necessary.
- Routine screening of HCWs is not necessary, and of doubtful value as staff are often transient carriers only.

- HCWs dealing with patients with MRSA during an outbreak, may need to be screened on completion of this duty.
- All HCWs need to be informed of their positive M.R.S.A. colonisation.
- HCWs identified as MRSA positive on nasal screen should have groin swabs collected.
- HCWs with nasal carriage only can continue to work in low risk areas. If staffing allows, they should not work in ICU or other high-risk areas until 24 hours after commencing topical treatment (they may work in low risk areas).
- HCWs carrying MRSA in any site are treated the same as for patient management. After treatment (at least 48 hours) swabs should be sent to the laboratory
- Chronic or repeat carriers will be managed on an individual basis.
- HCWs who deal with many patients in different units of the hospitals, e.g. physiotherapists and phlebotomists, should be informed of patients identified as MRSA positive and their role in taking measures to prevent transmission.
- HCWs who themselves are in contact with MRSA carriers outside work, should seek advice from the Infection Control Nurse or Microbiologist.

5.14 HOW CAN WE PREVENT MRSA?

- **Strict control of antibiotics** is essential in hospitals and the community, as widespread use of both systemic and topical antibiotics predisposes to the emergence of MRSA.
- **Hand hygiene between attending to patients** is the most effective method of preventing the spread of MRSA.

- **Early identification** of cases and carriers, with appropriate treatment of carriage sites and isolation of cases in the acute hospital setting will prevent spread.
- Adhering to high standards of environmental hygiene.
- Early discharge of patients from hospital reduces the risk of acquiring MRSA.

5.15 MANAGEMENT OF MRSA IN NURSING / RESIDENTIAL HOMES DISTRICT / COMMUNITY HOSPITALS AND SPECIAL HOSPITALS

MRSA IS NOT A REASON TO REFUSE ADMISSION FROM AN ACUTE HOSPITAL, OTHER INSTITUTION OR FROM THE COMMUNITY.

GENERAL GUIDELINES:

N.B. Routine screening is not indicated and MUST NOT be undertaken prior to acute hospital discharge or on admission to extended care centres from another hospital or the community.

(These swabs will not be processed by the laboratory).

- The nurse-in-charge will be responsible for ensuring that the following guidelines for the control of MRSA are implemented.
  - The hospital discharge or admission letter should include the MRSA status of the patient, and treatment received or required.
  - MRSA Discharge/Transfer Notification Form must be completed(see appendix 9.2)
  - **HAND HYGIENE IS THE MOST IMPORTANT AND EFFECTIVE MEHTOD OF PREVENTING THE SPREAD OF MRSA.**

- **HAND HYGIENE MUST BE PERFORMED APPROPRIATELY BY ALL HCWs.**
- Wash hands with soap and water or use alcohol gel on visibly clean hands before and after direct patient contact and on removal of PPE.
- Use disposable gloves when performing invasive procedures or handling blood or body fluids. Dispose of gloves in Health care non-risk waste bag (black).
- HCWs changing dressings should comply with aseptic technique, using disposable gloves and a plastic apron.
- Change dressings in the resident's own room / area.
- Cover wounds with appropriate dressings.
- Isolation nursing is rarely necessary as this may adversely affect patient rehabilitation or well being. If in doubt, contact an Infection Control Nurse.
- Patients who are MRSA positive should be placed away from the more vulnerable patients e.g. patients with PEG tubes, urinary catheters.
- If the patient is to travel by ambulance, inform ambulance personnel of the patient's MRSA status in advance.
- If the patient is to be admitted to an Acute Hospital or attend for Out-Patient treatment or Accident & Emergency, the Department Manager of should be informed.
- All skin lesions of an infective or exfoliative nature should be covered.
- Management and staff need to be aware of the importance of MRSA. HCWs with extensive skin lesions (e.g. pustular or exfoliative) should be screened for MRSA and managed appropriately.

5.16 MRSA Screening

- **This must only occur following a positive specimen result for culture and sensitivity.**

<u>Screening Sites are:</u>

- Anterior Nares (both sides, using 1 swab only)
- Perineum or Groin (not both) if from groin 1 swab only
- Any wound or abnormal skin lesion
- Sputum if present
- CSU if catheterised
- PEG site

Do not repeat site already identified.

5.17 Treatment/Decolonisation

Nose MRSA positive

Mupirocin (Bactroban) Nasal Ointment three times per day for 5 days

Groin MRSA positive

Octenisan antimicrobial body wash lotion instead of soap/bath/shower gel for full body washing daily for 5 days. (See Appendix 9.5).

Skin folds- e.g. axilla, groin, under breasts, elbow joints and behind knees,

Apply CX Powder sparingly once daily after shower for 5 days.

Procedure for using Octenisan

- Wet the skin
- Apply Octenisan to disposable cloth
- Wash body with Octenisan and observe a contact time of 3 minutes.
- Rinse off all of the Octenisan.
- Dry body with a clean towel (Change towel daily).
- Ensure that hair is washed with Octenisan on Day 2 and 4

If more than one site is positive Octenisan, Bactroban and CX powder should commence on the same day and must all be prescribed in the patient's Medication Record.

- **N.B. Only treat positive sites as per Microbiology Laboratory results and discussion with Infection Control Nurse**

- **Skin lesion** e.g. minor wounds, minor ulcers etc.
- Apply Mupirocin (Bactroban) ointment, daily after consultation with the patient's clinician and after appropriate wound toilet. (see table 1 for contra indications).

  Note: Risk of renal toxicity, must be prescribed by doctor.
- **Major wounds, Critically colonised/infected e.g. leg ulcers**

  Consult with a medical or nurse specialist in wound care.

Additional procedures:

- Change all bed linen, wash cloths and towels daily.
- Send to laundry as per normal laundry guidelines
- Change all night-clothes after body washing daily.
- In ambulatory patients, washable garments and undergarments should be changed as often as possible, and preferably daily. Non-washable garments should be dry cleaned during treatment if possible and must be dry cleaned at the end of treatment.

5.18 REPEAT SCREENING AND FOLLOW UP:

- Repeat screening specimens two days following the end of treatment (no sooner).
- If screening specimens remain positive after first treatment, repeat treatment and re-screen.

- In the event that screening specimens remain positive after second treatment, **do not re-treat or re-swab** unless clinical infection suspected.
- Clearance swabs are not required as when patients recommence antibiotics they will most likely re-emerge with MRSA colonisation.
- Patients with a history in these settings can be presumed to be chronic carriers of MRSA.
- Standard precautions should be taken as with all patients.

N.B. If patients are on any of the beta-lactam (e.g. Augmentin) antibiotics, they need to be discontinued and the patient put on appropriate treatment. Continued use of these antibiotics continues selection of MRSA.

If a nursing home/Community Care facility is in doubt about the management of a patient or staff member with MRSA, they should contact the local Infection Control Nurse or Consultant Microbiologist and follow the advice given.

6.0 Frequency of Review

2 yearly

7.0 Method used to review operation of Guideline

Data collection

8.0 References

8.1 The Control and Prevention of MRSA in Hospitals and in the Community SARI September 2005

8.2 Children's University Hospital Temple Street, Dublin 2006

8.3 Bugs & Drugs Newsletter of the Mullingar, Portlaoise and Tullamore Microbiology Laboratories, Infection Control and Antibiotic Pharmacist Vol 1 No1 Page 1

9.0 Appendices

9.1 Isolation Room door sign

9.2 Treatment Products

9.3 Discharge/Transfer Notification Form

9.4 Patient Information Leaflet

9.5 De-colonisation and re-screening record tool

9.6 How to use Octenisan Poster

9.1 Isolation Room door sign

Attention

Please contact <u>Nursing Staff</u> before entering this room.

Please wash hands or use the alcohol hand rub/gel before entering and when leaving this room.

Thank you for your co-operation

9.2 Treatment Products.

Proprietary Preparations and Indications	Constituents	Comments
*Octensian	Octenidine	Use as liquid soap/shower gel
"Bactroban nasal"	Mupirocin 2% in paraffin base	For mucous membranes only. (agent of first choice) **Do not use in pregnancy.**
"Bactroban ointment"	Mupirocin 2% in polyethulene glycol base	Skin carriage sites and small wounds Avoid eyes, mucous membranes, large wounds and large raw areas: **do not use in pregnancy or lactation**
CX antiseptic dusting powder		Skin carriage sites.

In the case of hypersensitivity, contra indications seek special advice

9.3 Discharge / Transfer Notification Form

NOTIFICATION OF M.R.S.A.

This form is to notify the relevant health professionals that a patient is or was colonised/infected with M.R.S.A. **This is not a discharge letter**.

To: ___________________________ ___________________________
Name of Hospital
Re: ___________________________

Dear_______________________

The above patient was found to be colonised / infected with methicillin resistant Staphylococcus aureus (M.R.S.A.). Sites found to be positive were as follows (include dates of swabs):

____
____
____

the following topical treatment was administered (treatment and dates)

____
____
____

The most recent swabs were obtained on ________________________ (date)

All sites were negative / the following sites were positive (delete as applicable)

____

The present decolonisation treatment is as follows:

____

The treatment should continue for ______________________ days

In the event that the patient has to be admitted to another hospital, please advise the receiving hospital / nursing home that the patient was M.R.S.A. positive
Yours sincerely,

9.4 Information for Patients and Visitors 2006

What is MRSA?

MRSA stands for **m**eticillin, **r**esistant **S**taphylococcus **a**ureus. Staphylococcus aureus (pronounced staf-ill-o-kok-us or-ee-us), or "Staph aureus" for short, is a common germ that lives completely harmlessly on the skin or in the nose of about one in three people. MRSA is a type of Staph aureus that has become resistant to a number of different antibiotics.

Most people who carry MRSA on their bodies or in their noses don't suffer any ill effects. Carrying the germ harmlessly like this is called "colonisation". However MRSA sometimes causes infections if it enters the body. This is more likely to happen to people who are already unwell, particularly those who are in hospital with a serious illness. Most MRSA infections are called "local" infections, such as boils, abscesses or infected wounds. These are easily treated in a small number of people, however, MRSA can cause serious infections such as septicaemia (also known as "bloodstream infection" or "blood poisoning").

How can you tell if someone has MRSA?

Most people with MRSA carry the germ harmlessly and have no ill effects. Patients who have an infection caused by MRSA do not look or feel any different to patients who have infections caused by other germs. The only way to tell if someone is carrying MRSA, or has an infection caused by MRSA, is to do a laboratory test on a sample from a wound, blood, urine, nose, or other part of the body. If MRSA is found in a sample it means that the person has MRSA on their body.

How do people get MRSA?

The people most at risk of getting MRSA are those who have been in hospital for a long time, or have a lot of contact with hospitals, or have a long-term illness, or have had a lot of antibiotics. In the hospital, MRSA may be passed from one person to another on the hands, of staff or visitors, by patient care equipment, or

by contamination of the hospital environment. MRSA is most likely to spread where there is overcrowding and where a lot of antibiotics are used.

How does having MRSA affect a person's care in hospital?

Even though most people with MRSA carry the germ harmlessly, hospitals take steps to stop the spread of MRSA to other people so that the risk of serious MRSA infections is reduced. Patients in hospital who are carrying MRSA may be cared for in a single room on their own, or may be cared for with other people with MRSA in a particular ward area. Some patients who are carrying MRSA may also be given antiseptic body and hair shampoo and an antiseptic cream for their nose to try and get rid of the germ. Extra swabs may be taken from the nose and other parts of the body after this treatment, to see if MRSA is still present.

If a person has an infection caused by MRSA they are treated with antibiotics, usually given intravenously, i.e. by a 'drip'.

Can family and friends visit a person in hospital with MRSA?

MRSA does not harm healthy people, including pregnant women, children and babies. MRSA rarely if ever presents a danger to the general public so friends and family can visit normally. Visitors will be asked to clean their hands after visiting a person with MRSA, so that they do not spread MRSA to other people.

If the family help to physically care for a person in hospital with MRSA, nursing staff will tell them of any extra precautions that may need to be taken.

Can patients go home with MRSA?

Yes. Patients with MRSA will be allowed home when medically fit. Most people lose MRSA when they leave hospital and when antibiotics are stopped. Relatives including children and friends at home are not at risk form a patient with MRSA who has been discharged from hospital.

What happens if a person with MRSA needs to be re-admitted to hospital?

A person who has had MRSA in the past will have swabs taken to see if they are still carrying MRSA. They may be nursed in a single room, until the results of these swabs are known.

Where can I get more information?

Patents in hospital and their relatives should not hesitate to ask medical or nursing staff for more information on MRSA. Further advice may also be sought from the hospital's infection prevention and control team.

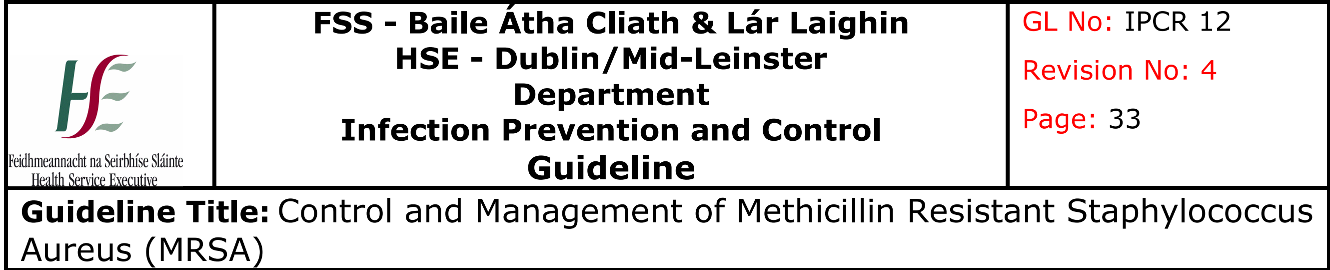
Further information on MRSA is also available form, the following websites:

www.hpsc.ie
The Health Protection Surveillance Centre (HPSC) has a "Frequently Asked Questions" page on Staph aureus and MRSA in the "Topics A-Z" section of their website. Information ton the current levels of MRSA, and other infections, in Ireland can also be found in the EARSS section of the HPSC website.

www.hpa.org.uk
The UK Health Protection Agency has background information on MRSA in the "Topics A-Z" section of its website.

www.cdc.gov
The US Centres for Disease Control (CDC) website has information on MRSA under its "A-Z Index"

www.amm.co.uk
The UK Association of Medical Microbiologists has a fact sheet on MRSA available in the publications section of their website.



9.5 MRSA Decolonisation and Screening Chart

Patients Name:________________ D.O.B:________ Chart No.:_________________ Treatment No. __________________(Two treatments only allowed).

Treatment	Day 1	Day 2	Day 3	Day 4	Day 5	Reswab
Nasal - Nasal Bactroban (Mupirocin 2%) T.D.S. x 5 day						
	Date:	**Date:**	**Date:**	**Date:**	**Date:**	**Date:**
Skin/Groin **Octenisan** antimicrobial body wash daily for 5 days. Wash hair with Octenisan on Day 2 and Day 4						
	Date:	**Date:**	**Date:**	**Date:**	**Date:**	**Date:**
Tracheostomy Site Clean site with Chlorhexidine 0.05% (unisept)						
	Date	**Date**	**Date**	**Date**	**Date**	**Date**
PEG Site Clean site with Chlorhexidine 0.05% (unisept)						
	Date:	**Date:**	**Date:**	**Date:**	**Date:**	**Date:**
Dialysis Exit Site Clean site with Chlorhexidine 0.05% (unisept) Nasal bactroban (Mupirocin 2%) x 5 treatments						
	Date:	**Date:**	**Date:**	**Date:**	**Date:**	**Date:**

MRSA Screening Sites: Initial positive site:_______________________________________

1. **Nose** ____
2. **Groin OR Perineum** ___________________________ ()
3. **Wounds**____

Device sites e.g. PEG, Trachy,CVP line ____

5. **C.S.U.** (if catheterised) _________________
6. **Sputum** (if productive) ______________

9.6 How to use Octenisan Poster