

MRSA in Tasmanian Rural Hospitals

Guidance for the management of patients with
MRSA in Tasmanian Rural Hospitals

V1.0

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Tasmania
Explore the possibilities

FINAL DRAFT

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SCOPE

This document provides guidance to Tasmania's rural hospitals. Specifically, the guidance relates to inpatients in Tasmania's rural hospital acute or sub acute beds. Refer to guidance on *MRSA in Non-Acute Settings* for additional information.

The management of patients with Methicillin Resistant *Staphylococcus aureus* (MRSA) is complex and requires a risk management approach. Information contained in this document is generic and the management of patients with MRSA should be done using a risk management approach, consistent with the [Australian Guidelines for the Prevention and Control of Infection in Healthcare \(2010\)](#) along with other reputable guidance.

What is MRSA?

Staphylococcus aureus is the most common bacterial cause of health care associated infections, causing a number of syndromes such as surgical site, urinary tract, respiratory and blood stream infections. In the last two decades MRSA has become endemic in hospitals throughout the world, including Australia. Health care associated infections caused by MRSA result in significant morbidity and mortality and increased costs, primarily as a result of increased durations of hospital stay

MRSA can be non multi resistant or resistant to multiple antibiotics. Due to the different strains and subtypes a number of terms are used to describe MRSA. The use of such terms is sometimes confusing, misleading or incorrect. For the purposes of this guidance, MRSA refers to 'endemic' MRSA. The common forms of endemic MRSA in Tasmania are ST22 – MRSA IV (EMRSA-15) EMRSA ST 239/1282 – MRSA III (AUS 2/3 EMRSA).

Community associated MRSA (CA-MRSA) may be managed differently. The TIPCU believe that the number of CA-MRSA cases in Tasmania is currently low, although may be increasing. Community associated MRSA does not mean a case of MRSA identified in the community, rather, it is a genetically different strain of MRSA.

It is known that there are a number of factors that impact on prevalence of MRSA in an institution including the strain, patient mix, pattern of antibiotic utilisation, levels of hand hygiene and the effectiveness of infection control procedures.

Colonisation or Infection

It is important to understand the difference between colonisation and infection. Like many bacteria, MRSA can live harmlessly on a person's body, a situation called "colonisation". Simply because a person has "MRSA" does not mean they have an MRSA infection.

A formal definition of colonisation is "a microbe that establishes itself in a particular environment, such as a body surface, without producing disease". Colonisation with MRSA is often found in the nose, throat or groin. Examples of other places where colonisation can also occur include PEG sites, wounds (not infected) and the axilla.

In contrast, infection is defined as "entry of a microbe into the body and its multiplication in the tissues resulting in disease". Infection with MRSA can occur anywhere on the body. Most commonly, infection occurs in wounds (i.e. wounds with clinical signs of infection such as redness, discharge or pain), the urinary tract or in the bloodstream.

For the purposes of this document and to assist in a practical manner, MRSA infection is defined as a person who has MRSA identified from a clinical sample AND is currently receiving MRSA specific antimicrobial therapy.

Precautions Required

Standard precautions must be applied when providing care to any individual, regardless of diagnosis or presumed infection status. Therefore, when caring for any patients with MRSA infection or MRSA colonisation in rural hospital acute or sub-acute beds, standard precautions must be used. The TIPCU have developed a 'guide for healthcare workers' on standard precautions, consistent with the Australian Guidelines for the Prevention and Control of Infection in Healthcare (2010) www.dhhs.tas.gov.au/tipcu

Transmission based precautions such as contact precautions are appropriate where there is MRSA Colonisation or Infection

Summary of MRSA Precautions Needed

MRSA Colonisation or Infection

- Standard precautions and Transmission based precautions are needed whilst the patient is receiving care in an acute or sub-acute bed.
- A patient can be removed from transmission based precautions if there is a need for rehabilitation or other treatment.
 - o In such circumstances hand hygiene must be encouraged and facilitated and any infected wound covered

“Screening” for MRSA

Screening for MRSA refers to taking swabs from specific sites (e.g. nose, throat and groin/perineum) to try and identify whether a person has MRSA colonisation.

Patient Admissions

The TIPCU does **not** recommend routine screening for MRSA for patients admitted to rural hospitals. For example, community, Emergency Department, GP or home settings.

Patient Transfers

Screening of patients transferred from acute hospitals to rural hospitals is recommended in the following situations

- Direct transfers from acute hospitals, where the patient has had an overnight admission
- AND**
- The patient being transferred has had surgery and has a surgical wound **OR**
 - There are other inpatients in the rural hospital
 - o that have had surgery and a have a surgical wound or
 - o are immuno-compromised

Where a patient meets the above criteria single room placement is indicated if possible until results have been obtained

A summary of this is contained in [Appendix A](#)

If screening is to occur

- it should occur immediately upon **receiving** the transferred patient. You should not ask or wait for a screen to be undertaken before receiving the patient.
- a pre moistened swab should be used when undertaking screening. A swab should be moistened using the transport media or sterile water.

- dressings should not be taken down for the sole purpose of undertaking a screen. Screening should be scheduled to coincide with the next planned dressing change e.g. surgical wounds, PICC line dressing etc
- a swab should be taken from the following sites
 - Nose AND
 - Throat AND
 - Groin or perineum AND
 - Chronic wounds or other areas of skin breakdown
 - Urine in patients with a long term urinary catheter

Ongoing screening of known MRSA patient

The TIPCU does **not** recommend ongoing screening for MRSA patients in rural hospitals. There may be exceptions when screening is appropriate in an individual patient's management or in the investigation of an institutional outbreak. This should occur as part of a robust organisational infection control program and support is available from a specialist infection control professional, infectious disease physician or microbiologist.

Staff

The TIPCU does **not** recommend routine screening of staff for MRSA in rural hospitals. This includes screening of staff caring for a patient identified as having MRSA. There may be exceptions when screening is appropriate in the investigation of an institutional outbreak. This should occur as part of a robust organisational infection control program and when support is available from a specialist infection control professional, infectious disease physician or microbiologist

Healthcare workers that have an existing infection with MRSA, identified by a medical practitioner (eg. a skin lesion or wound) should seek medical advice regarding treatment and exclusion from work.

Practical Issues

Cleaning

MRSA can be transmitted between persons via indirect contact. For example, a patient with MRSA may 'shed' it into the environment. A healthcare worker could subsequently touch a contaminated object, therefore contaminating their hands. This is why hand hygiene ([the '5 Moments' model](#)) is so important. The transmission of MRSA in the example described would be prevented simply by performing hand hygiene appropriately.

As an added measure, cleaning can reduce the amount of MRSA found in the environment and reduce the risk of indirect transmission of MRSA.

- A neutral detergent followed by the use of a disinfectant is recommended for the cleaning of patient rooms in acute and sub-acute beds. (This is a two-step process, detergents and disinfectants should not be mixed together)
- Particular attention should be paid to frequently touched objects such as bed rails, bed side tables and door handles. In some circumstances, eg. a patient with a heavily exudating infected wound that cannot be adequately covered, more frequent cleaning (e.g. twice daily) may be warranted.
- The person cleaning the room does not need to take any additional precautions, standard precautions apply.
- Routine screening/swabbing of the environment is not warranted or recommended.

- No special requirements are needed regarding the cleaning of dishes, cups or eating utensils

Single Room Placement

Patients under transmission based precautions can come out of a single room with consideration to the following:

- Education and compliance with hand hygiene is reinforced to staff and the individual patient
- The patient requires mobility or rehabilitation and any infected wound is covered

Summary points:

- Persons with MRSA colonisation or infection can join other patients in communal areas such as sitting or dining rooms, so long as any sores or wounds are covered with an appropriate dressing, which is regularly changed
- They may receive visitors and go out of the home, e.g. to see their family or friends.

Practical points

- You should complete any procedures on other patients before attending to dressings or carrying out other nursing care for patients with MRSA infection
- You should carry out any clinical procedures and dressings on a patient with MRSA infection in the patient's own room where possible.

Visitors

Visitors should be requested to perform hand hygiene when leaving the patient's room and after visiting.

Laundry

Patients' clothing may be taken home in a plastic bag for washing or may be washed on site as per usual procedure. A normal wash cycle can be used in accordance with AS/NZS 4146:2000.

A summary of MRSA management in rural hospital acute and sub-acute beds is contained in [Appendix B](#)

Transfers to Acute Hospitals

If a patient with MRSA requires treatment or admission to an acute hospital, you should communicate this information to the hospital, preferably in writing as part of your usual documentation process (e.g. transfer document). The TIPCU have developed an infection control risk transfer document should you wish to use it ([see TIPCU website](#)).

Transfers from Acute Hospitals

In Tasmanian acute hospitals, certain patient groups or patients with specific 'risk factors' may be screened for MRSA on admission. By doing this, patients with MRSA are identified and measures are put in place to reduce the risk of transmission. One reason for doing this is that in acute hospitals, invasive and or high risk procedures are more common. In such circumstances MRSA infection can have serious implications. As a result of this process, patients who are admitted to acute hospitals have a greater chance of being identified as carriers of MRSA.

If you have a patient being transferred to you from an acute hospital whom is known to have MRSA, it may mean they had MRSA before they went to hospital (identified on admission) or they may have acquired MRSA whilst in hospital. Some patients may have started treatment to eliminate or reduce MRSA colonisation whilst in hospital. Treatment can consist of nasal ointment or antimicrobial washes. Refer to the “Clearing MRSA” section.

A person with MRSA should not be refused admission to a non acute setting.

There is often a great deal of undue concern in rural hospitals, and non-acute settings about the spread and significance of MRSA - sometimes people with MRSA have been refused admission to a facility when ready for discharge from hospital. This can be distressing and cause difficulty for affected patients and their families. The situation has arisen because of some confusion about the nature of MRSA and the type of infection that it may cause.

There is no justification for discriminating against people who have MRSA by refusing them admission to a facility or by treating them differently from other patients.

Clearing MRSA

On occasions, attempts may be made to ‘clear’ a person of MRSA. This involves one or more of the following: nasal antibacterial ointment (commonly *Bactroban* also called mupirocin), body washes (commonly chlorhexidine), mouth washes and occasionally antibiotics. Any attempt to clear MRSA colonisation should only be done with the supervision of an experienced infection control professional, with medical support.

Patients transferred from acute hospitals may be in the middle of clearance treatment. If this is the case, information should be provided to you regarding the management of this. If information is not forthcoming, then it is advisable to cease body washes, nasal ointment and mouth washes. Any oral medication that is prescribed should be completed as instructed.

Points to Remember

- Hand hygiene is the most important way to prevent the transmission of infections. The TIPCU recommends the use of the ‘5 Moments’ of hand hygiene model. Information regarding hand hygiene can be found on the [TIPCU website](http://www.tipcu.org.au) or Hand Hygiene Australia website – www.hha.org.au

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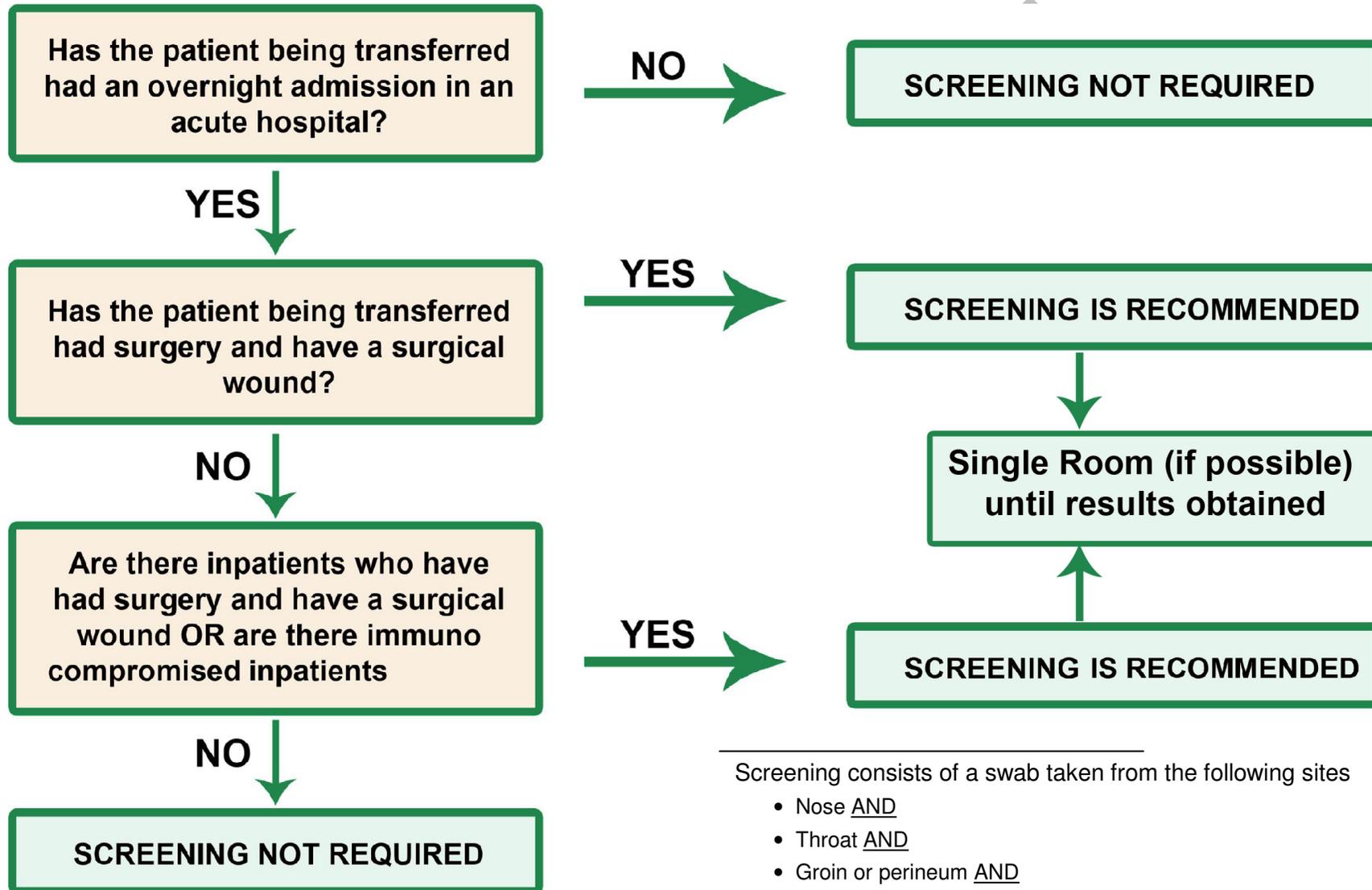
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MRSA FLOW CHART FOR SCREENING
Rural Hospitals (Acute/ Sub acute Patients)



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