Government of **Western Australia**
Department of **Health**
Public and Aboriginal Health Division

Management of CA-MRSA - information for healthcare providers

Community-associated methicillin-resistant *Staphylococcus aureus* (CA-MRSA) are strains of MRSA that are known to cause infections in people living in the community. Those infected are often otherwise healthy, with no traditional risk factors for MRSA acquisition, such as chronic disease or prior medical interventions. CA-MRSA primarily cause community-onset skin and soft-tissue infections (SSTIs), which are often recurrent and can spread easily to others, who are in close contact with a person who has CA-MRSA, especially those who share the same household. Less commonly, CA-MRSA can lead to more severe disease, such as bacteraemia, musculoskeletal infections and pneumonia. CA-MRSA strains are also the cause of the majority of healthcare associated MRSA infections acquired in Western Australian hospitals.

Key Points

Antibiotic therapy

- CA-MRSA strains, like all MRSA, are resistant to all beta-lactam antibiotics, including flucloxacillin, amoxycillin/clavulanate and all cephalosporins e.g. cephalexin.

Management of skin and soft tissue infections (SSTIs)

- Incision and drainage (I&D) is recommended, whenever possible, as a priority.
- I&D alone may be sufficient for small abscesses and boils and when the patient is otherwise well and has no systemic symptoms or co-morbidities.
- Prescribe antibiotics if I&D is not possible, or the patient has significant co-morbidities.
- Management in a hospital is likely to be required for patients with large or deep abscesses, extensive cellulitis, or who are unwell with systemic symptoms.

Decolonisation treatment

- Decolonisation may be offered on a case-by-case basis when individuals or their household contacts:
  - have recurrent CA-MRSA or staphylococcal-like infections
  - are at increased risk for acquiring staphylococcal infection, such as those with chronic skin disorders, diabetes, peripheral vascular disease or immunosuppression
  - are healthcare workers or carers

  or when there are ongoing MRSA infections occurring in a well-defined, closely-associated cohort or group, for example a dormitory, day care centre or sports club.
- Decolonisation should be considered for all people with colonisation or infection caused by rare strains of CA-MRSA that are of particular concern to the Department of Health due to their increased transmissibility or antibiotic resistance.
- If there are ongoing infections in a household despite treatment, decolonisation of all household members should be considered, even if some members do not have an active infection. All household members should commence decolonisation on the same day.

Visit Healthy WA for further information on CA-MRSA, including information for consumers.

ANTIBIOTIC THERAPY

Note that <u>all</u> MRSA are resistant to all the beta-lactam antibiotics (e.g. flucloxacillin, amoxycillin/clavulanate) and all cephalosporins (e.g. cephalexin).
Antibiotic recommendations in this table relate specifically to skin and soft tissue infections, and not to other infection types.

- The decision to prescribe antibiotics requires clinical judgment and an assessment of the severity of the infection. The choice of antibiotics is dependent on the age, allergy history and co-morbidities of the patient.
- It is advised that you discuss with an infectious diseases physician or clinical microbiologist if:
  - the patients symptoms are worsening despite therapy
  - the patient has multiple drug allergies
  - the isolate is resistant to the antibiotic agents suggested below
  - the patient is less than 2 months of age (See Note 3 below).

ADULTS

In order of preference	Antibiotic	Dose	Pregnancy Category #
First line	Clindamycin Δ	450mg TDS, orally for 5 days (see Note 1 below)	A
Second line	Trimethoprim with sulphamethoxazole	160+800mg BD, orally for 5 days (see Note 1 below)	C
Third line	Doxycycline	100mg BD, orally for 5 days (see Note 1 below)	D

CHILDREN

In order of preference	Antibiotic	Dose
First line	Trimethoprim with sulphamethoxazole	4+20mg/kg (up to max 160+800mg) per dose orally, 12 hourly for 5***** days Tablets / oral suspension available on PBS (See Note 2 below)
Second line	Clindamycin Δ	10mg/kg (up to max 450mg) per dose orally, 8 hourly for 5*****days (suitable for older children if able to swallow 150mg capsule) Oral suspension not on PBS list nor readily available off PBS
Third line	Doxycycline	**ONLY Suitable for Children >8 years:** 2.5mg/kg (up to max 100mg) orally, 12 hourly for 5***** days Tablets and capsules available on PBS

Therapeutic Guidelines Antibiotic Version 15 – Appendix 6
Δ Clindamycin should NOT be used for MRSA isolates RESISTANT to erythromycin and related macrolide class antibiotics (azithromycin, clarithromycin, roxithromycin). PBS restricted benefit listing for clindamycin courses of <=24 150mg capsules. PBS authority prescription required for courses >25 150mg capsules (Indication: Gram-positive coccal infections where these cannot be safely and effectively treated with penicillin).
* See Note 1

Note 1: Longer therapy may be required for carbuncles and those with associated cellulitis. Therapeutic Guidelines – Dermatology Version 3 (available on-line).
Note 2: Where trimethoprim with sulphamethoxazole is not appropriate (MRSA is resistant or patient allergy) and second line agent clindamycin capsules cannot be swallowed or taken, consider use of PBS listed erythromycin ethyl succinate oral suspensions, provided MRSA sensitivity to erythromycin has been demonstrated.
Note 3: Neonates (<2 months) requiring antibiotic therapy should be discussed with relevant specialist colleagues with paediatric expertise. Erythromycin is specifically contraindicated in this age group because of an increased risk of pyloric stenosis.
Note 4: **Group** A streptococci (GAS) are another common cause of skin and soft tissue infection, particularly cellulitis and impetigo. If GAS infection is suspected, therapy should include an agent active against this organism (beta-lactam or clindamycin). Tetracyclines and Trimethoprim- sulphamethoxazole, although active against MRSA, are not recommended treatments for suspected GAS.