

Guidelines for investigation of new patient carriers of Healthcare associated MRSA (HA-MRSA) on wards

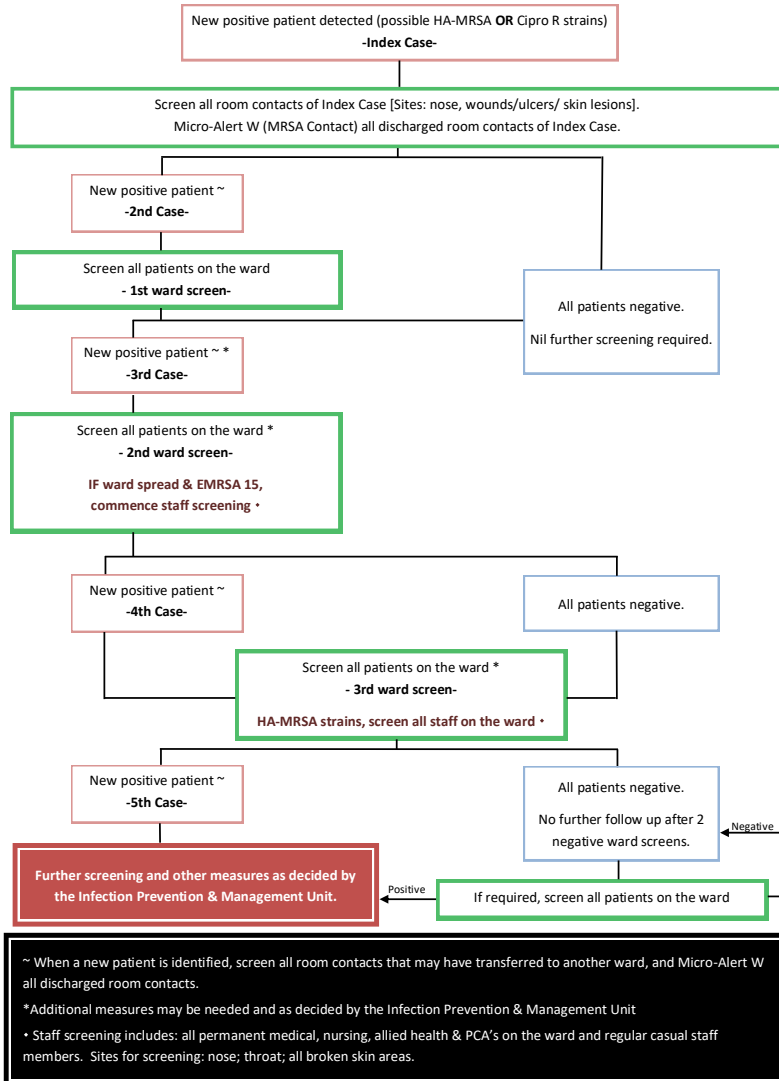


Figure 1

Adoption of a Tertiary Hospital MRSA Outbreak Management Algorithm for Effective Containment of an EMRSA 15 (ST22-IV) Cluster in a Rehabilitation Ward. Lee, Rosie & Meyer-Henry, Simon

Background:

In WA, for 2015-2016, Healthcare-associated MRSA (HA-MRSA) accounted for 23% of MRSA HAIs. Of these 92% were EMRSA 15 (ST22-IV), a significant strain in the hospital setting hence it is vital to prevent outbreaks.

Methods:

In February 2017, 1 case of EMRSA 15 infection was detected from a patient in an aged care rehabilitation ward at Bentley Hospital (BH). BH Infection Prevention Unit was notified of a second case of EMRSA 15 colonisation detected in an inpatient screened whilst attending an outpatient appointment at another facility.

In 2016 RPH & BH were reconfigured, and infection control policies aligned. Consequently, the detection of 2 EMRSA 15 cases led to an epidemiological investigation using the RPH MRSA outbreak management algorithm to contain the cluster (Figure 1). The RPH control strategies include isolation of positive patients, screening of contact patient, staff, and environmental cleaning as appropriate.

A 2014 publication based on a retrospective review of hospital MRSA outbreaks at RPH supported the importance of introducing early screening and decolonisation of Healthcare Workers (HCW) to control outbreaks caused by EMRSA 15.

Results:

Investigation identified the 2nd case had been admitted into a bed space previously occupied by the index case, transferred minutes earlier to another ward.

Patient screening identified an additional patient with an EMRSA 15 infection and subsequent screening of 72 HCWs detected 3 EMRSA 15 staff cases. The positive HCWs were treated with topical treatment for MRSA.

Genotyping of the 6 EMRSA-15 isolates using PFGE (3 patients and 3 HCW) confirmed linkage between the index case, a ward contact and 2 HCWs (Figure 2). There was no relationship between cases who had shared the common bedspace.

Conclusion:

- In non-tertiary settings, cases of clinical infection with EMRSA 15 should be investigated and strategies employed to curb transmission.
- Early identification of HCWs and subsequent treatment enhances the strategies to swiftly contain EMRSA 15 cluster.
- The use of molecular technology to confirm the outbreak is recommended.

Further details:

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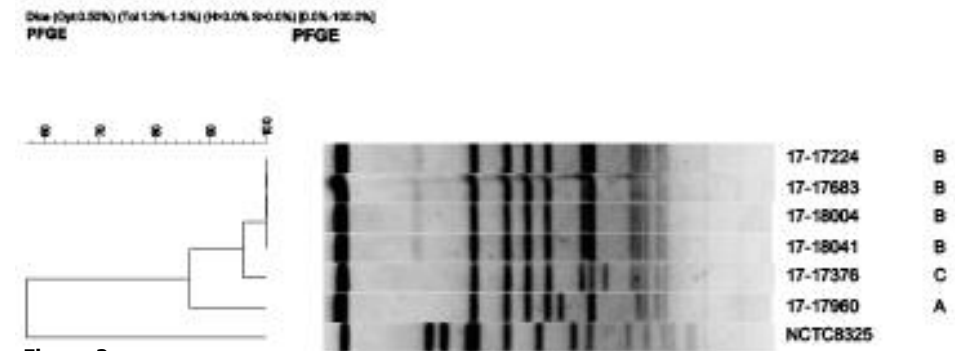


Figure 2