

Staphylococcus aureus Bacteraemia (SAB): Clinical Predictors & Resistance Risk Controls

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Audit Aim (PLAN)

SAB is a bloodstream infection leading to life threatening complications or mortality. It is essential to determine disease burden and identify clinical predictors of SABs based on acquisition site and source of infection to optimise prevention and management strategies. Correlation of antibiotics usage and MRSA patients will be further made. PDSA Approach has been applied for the Audit.



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Methodology (DO)

Retrospective Audit is conducted at Hillingdon Hospital.

- Time Period – May 2022 to September 2024.
- 104 SAB cases differentiated into MSSA or MSRA.
- Data collected from case notes , pathology reports and drug charts.
- Limitations included mostly critical patients requiring multiple antibiotics usage simultaneously. and lost documents due to change in IT systems

MSSA/MRSA Blood Stream Infections by Apportionment Rule

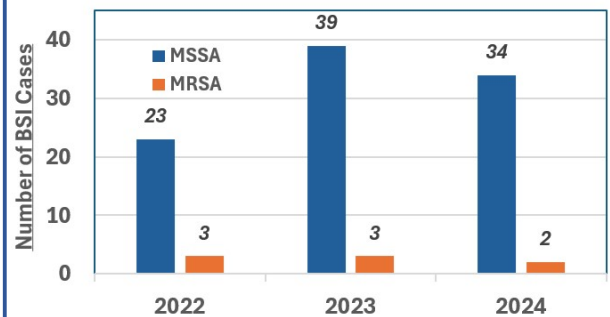


Figure 1

Brekadown of Infection Source

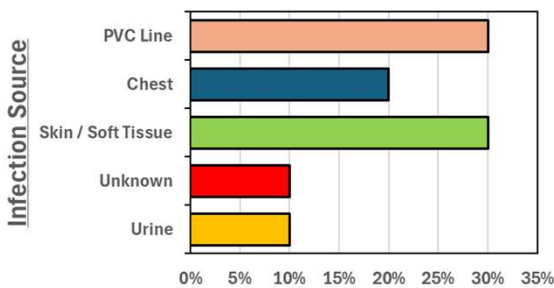


Figure 2

MSSA Acquisition Site

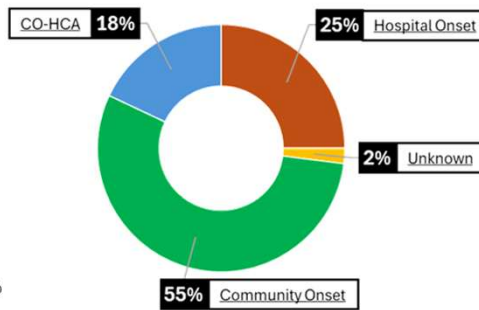


Figure 3

MRSA Acquisition Site

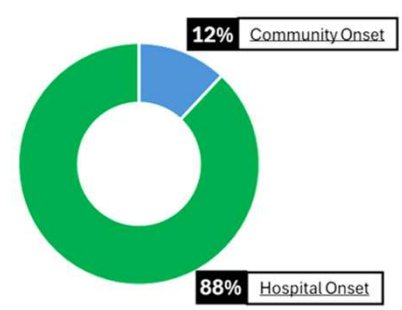


Figure 4

Antibiotic Usage for MRSA Patients

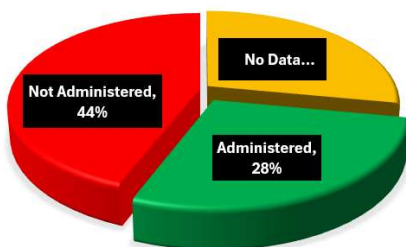


Figure 5

3

Results & Analysis (STUDY)

- SAB Cases were higher after 2022. (Figure 1)
- Skin / soft tissue and PVC lines are major sources of SABs overall. (Figure 2)
- 50% of MSSA cases were community acquired in contrast to only 12% of MRSA cases. (Figure 3 and 4)
- Only 28% of the MRSA patients received prior antibiotics . (Figure 5)

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Conclusion (ACT)

- SAB prevention strategies such as hand hygiene, environment hygiene, skin infection management / wound care need to be continually monitored.
- Poster will be shared with the team to raise awareness. 2nd PDSA cycle will then be conducted.