Staphylococcus Aureus Bacteraemia (SAB) Management Over 1 year In A Tertiary Care University Hospital

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Background:

A study was conducted to assess the compliance to local guidelines and international standards for the management and treatment of SAB.

Patient Demographic:

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Gender:	40 Male (67%)
Age:	Mean: 63yo IQR: 32yo
Acquisition Route:	34 community 26 Hospital acquired
MRSA Status:	56 MSSA, 4 MRSA
Source:	Osteomyelitis (12% n=7) Septic arthritis (24%, n=14) Skin and soft tissue infection (22.5%, n=13)

Method:

- Retrospective review from health care records, of the management of all SAB at our institute
- 1 year (Sept 19 - Sept20)
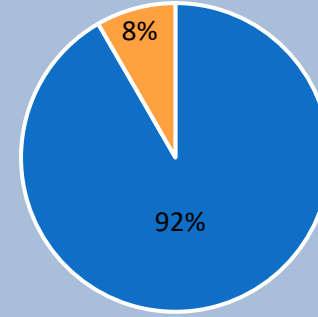
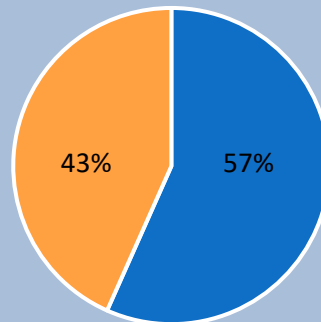### All cause mortality post-SAB acquisition:

- Mortality <1month: 15%
- Mortality <1 year: 23%
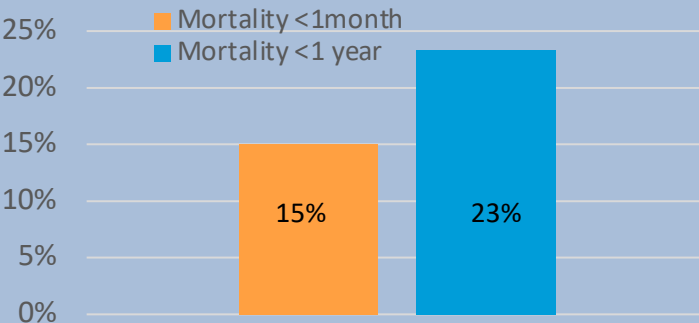
Duration of Antibiotics
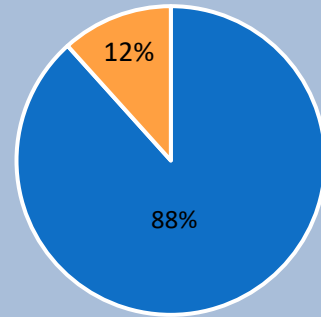
- 14 days of IV Antibiotics: 88%
- <14 days of IV Antibiotics: 12%

Repeat Blood Cultures

- Within 24-48hrs: 92%
- 48-72hrs: 8%

Acquisition Route

- Community Acquired: 57%
- Hospital Acquired: 43%
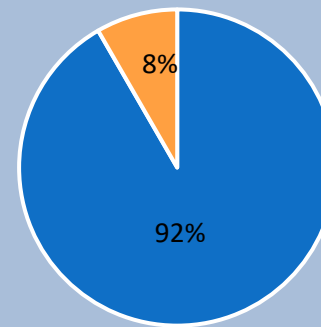
ECHO

- TTE/TOE: 92%
- None: 8%

Quality of Care Indicators:

1. Follow up blood cultures 48-96 hours

2. Early source control

3. Echocardiography in patients with clinical indications

4. Early use of IV Flucloxacillin

5. Adjustment of Vancomycin dose according to trough levels

6. Treatment duration according to infection complexity

Results:

During the study, 68 patients grew S.aureus.

60 patients were included, as 6 died before their second culture and 2 were uncontactable having left the ED.

- 88% had a full 14 day course of Flucloxacillin/appropriate alternative, with all adjusting for Vancomycin levels if appropriate.
- 100% of inpatients had a 2nd blood culture before 96hours
- 91% had an Echo (TTE/TOE/ both)

Conclusion:

Adherence to local and international standards for the management of SAB was optimal in our institute. Interventions will be undertaken to further improve compliance with the standards before repeating the study in due course.