

CAMERA2 TRIAL : POST HOC ANALYSIS

OFID 30 JAN 2025

ASSOCIATION OF DAILY BODY TEMPERATURE, WHITE BLOOD CELL COUNT AND C-REACTIVE PROTEIN WITH MORTALITY & PERSISTENT BACTEREMIA IN PATIENTS WITH STAPHYLOCOCCUS AUREUS(SAB) BACTEREMIA

1 RESEARCH QUESTION

Staphylococcus aureus bacteremia is associated with significant morbidity and mortality.

1. What are the associations between daily body temperature, C-reactive protein (CRP), and white blood cell count (WBC) and clinical outcomes of persistent bacteremia and mortality?
2. Whether these variables should be used in risk stratification algorithms?

2 METHODS

1. Prospective collection of daily body temperature and peripheral blood WBC and CRP of enrolled hospitalized adult patients with MRSA bacteremia (n=345).
2. Evaluation of the prognostic relevance of each parameter by calculating crude and adjusted odds ratios for 90- day all-cause mortality comparing patients with the abnormal parameter of interest vs those with normal parameters on each day of illness.

3 RESULTS

1. 63 (18.3%) died within 90 days.
2. Fever (body temperature ≥ 38.0) was associated with increased odds of 90-day mortality from day 4 and onwards.
3. Fever later in the illness course was associated with higher adjusted odds of mortality (aOR 8.78, 95% CI 2.78–27.7 on day 7 vs aOR 3.70, 95% CI 1.58–8.67 on day 4).
4. In contrast, CRP and abnormal WBC count did not demonstrate a consistent or temporal association with mortality.

4 CONCLUSION

Persistent fever after 72 hours is associated with increased mortality in patients with MRSA bacteremia, supporting recommendations that this should be kept as a criterion for classifying patients as either “high-risk” or “complicated”. However, there is limited additional predictive value in WBC or CRP.

