

CARBAPENEM-COMBINATION FOR PERSISTENT MSSA

DOES COMBINATION THERAPY CLEARS BACTEREMIA FASTER?



WILL THIS CHANGE MY PRACTICE?

- The excitement to add combination therapy should not obstruct the active pursuit for source-control.
- Combination therapy may be considered in those with IE or difficult-to-achieve source control.
- There were patients on other combination therapy (e.g. rifampicin / daptomycin) which has active-MSSA effects.
- Collateral damage from use of broad-spectrum antibiotics must always be considered for AMS.
- If combination therapy were used - optimal duration of usage is still unknown.
- Further studies especially RCTs are needed to further elucidate the advantage of combination therapy.



QUESTION OF INTEREST

- Several studies have shown efficacy of carbapenem-combination to rapidly clear MSSA bacteremia.
- Rationale: complete saturation of PBP hence promote enhanced bacterial killing.

METHODOLOGY

- Retrospective study done among adult patients with persistent MSSA BSI > 48 hours.
- 238 patients were included. 66% received standard therapy (cefazolin or cloxacillin or nafcillin) vs 34% who received combination therapy (additional meropenem of ertapenem).
- Primary outcome: Time to achieve culture clearance from day of effective antibiotics.

RESULTS & DISCUSSION

- Combination therapy arm demonstrated faster blood culture clearance (HR = 1.618; p = 0.011)
- Median time to carbapenem initiation was 4.7 (3.63 - 6.5) days.
- There were also more infective endocarditis cases in the combination therapy arm.
- There were no differences between in-house or 90-day mortality between the treatment arms.