ePP423 Ceftaroline fosamil for treatment of cSSTI due to *Staphylococcus aureus* with vancomycin MICs 1.5–2 mg/L

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Introduction

- Decreased clinical success is associated with infections due to *S. aureus* with reduced vancomycin susceptibility (RVS; vancomycin MICs 1.5–2 mg/L) (Sakoulas et al. 2004)
- Ceftaroline fosamil (Zinforo™ / Teflaro®) is approved for the treatment of community-acquired pneumonia (CAP) and complicated skin and soft tissue infections (cSSTIs) by the EMA and for similar indications in the US
- Data from the **CAPTURE** (Clinical Assessment Program and Teflaro Utilization Registry) study are presented to describe the effectiveness of ceftaroline fosamil (CPT-F) against RVS *S. aureus* among cSSTI patients

Patients and Methods

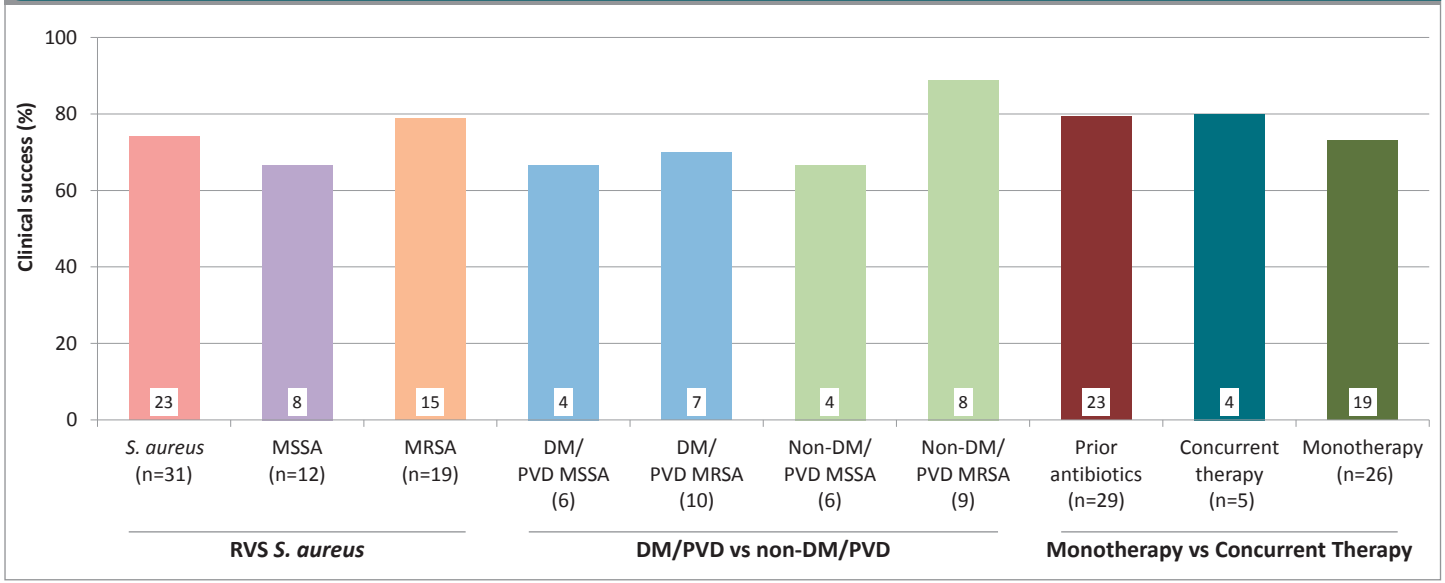
- Data were collected from randomly ordered hospitalized patients (inpatient charts) identified from pharmacy listings in the US from August 2011 to April 2013
- Analysis populations:
  - The evaluable population comprised patients with data sufficient to determine a clinical response (success or failure)
  - The microbiologically evaluable (ME) population were evaluable patients with a confirmed *S. aureus* infection
- For full methods see Santos et al. 2013

Results

Incidence of RVS *S. aureus*

- Within the evaluable population (1392 of 1444 patients), 700 patients had microbiologically confirmed infections, including 469 (67%) with *S. aureus* (ME population)
- MRSA and MSSA were isolated from 323 (46%) and 149 (21%) ME population patients, respectively (3 patients had both MRSA and MSSA)
- Vancomycin susceptibility tests were conducted on 176 *S. aureus* from the ME population: 31 isolates (18%) exhibited MICs of 1.5 or 2 mg/L (RVS). RVS incidence was 19/127 (15%) among MRSA and 12/49 (24%) among MSSA

Figure 1. Clinical Success of CPT-F Therapy Among (i) all RVS *S. aureus* Patients, (ii) DM/PVD vs non-DM/PVD Patients and (iii) Monotherapy vs Concurrent Therapy



Patient Characteristics - RVS population

- 12/31 patients had diabetes mellitus (DM) only and one had peripheral vascular disease (PVD) only; 3 had both
- Infections caused by RVS *S. aureus* included cellulitis, infected surgical wounds, infected ulcers and major abscesses

Antibiotic therapy – RVS population

- Most (26/31) patients were treated with CPT-F monotherapy (mean: 6.0 days; SD: 3.1; range: 3–15)

Clinical outcomes

- Clinical success was 86% (1203/1392) within the evaluable population
- Clinical success was 74% (23/31) within the RVS patient population and was not markedly affected by DM, PVD, MRSA or treatment with monotherapy or concurrent therapy

Conclusions

- **In this population, MRSA incidence was higher than MSSA among cSSTI patients**
- **RVS incidence among MRSA (15%) and MSSA (24%) raises further concern for empirical vancomycin use particularly for MSSA**
- **CPT-F was active against a wide range of skin infection types, regardless of presence of diabetes mellitus and/or peripheral vascular disease**
- **CPT-F achieved high clinical success rates in SSTI patients infected with RVS *S. aureus* who had been previously treated with vancomycin therapy, including patients infected with MRSA**

References

1. **Sakoulas G, et al.** 2004. *J Clin Microbiol*. 42:2398-402
2. **Santos PD, et al.** 2013. *J Chemother*. 25:341-6