Successful treatment of native, mechanical, infective endocarditis (IE) may be achieved under outpatient parenteral infusion therapy (OPAT) settings, with demonstrated improved outcomes, reduced readmissions and associated costs. POCID was a randomized, controlled trial comparing OPAT to hospital-based care for IE. The primary outcome was treatment success. This study assessed clinical and economic outcomes of POCID enrolled patients.

Methods: A randomized, prospective review was conducted of patients (pts) with IE who were treated with OPAT. Pts were randomized to OPAT in a 1:1 allocation ratio to standard hospital-based care. The primary analysis was treatment success (TS). TS was defined as a lack of infection-related complications (infection, valve regurgitation, amputation, and death) within 90 days of hospital discharge. Additional outcomes included mean length of therapy (MLT), cost, and days to discharge. POCID was conducted at five centers in the United States.

Results: 117 pts were included in the analysis. OPAT TS was 86% (95% CI 79-91%), compared to 83% (95% CI 76-90%) in the hospital group. TS was greater in pts who received OPAT in the outside setting than those who received hospital care (93% vs. 73% in the outside setting vs. the original hospital). Mean length of therapy was shorter for pts treated with OPAT (26±20 days) than hospital care (32±20 days). The mean hospitalization cost was $1.49 million (122 pts), compared to $1.74 million (95 pts) for hospital care. Days to discharge were reduced (5±4 vs. 8±5 days), and pts had statistically lower outpatient costs (p<0.001).

Discussion: This 3-year prospective multicenter study of pts with IE has demonstrated:

- Successful treatment was achieved in 86% of pts treated with OPAT
- TS was higher in pts receiving OPAT outside the hospital setting
- Pts had lower outpatient costs
- Hospitalization costs were reduced with OPAT

Conclusions: Outpatient OPAT treatment of native, mechanical, infective endocarditis may be associated with:

- Improved treatment success
- Lower costs
- Reduced duration of hospitalization

References: