Intravenous versus Partial Oral Antibiotic Therapy in the Treatment of Uncomplicated Bloodstream Infection due to *Streptococcus* species

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**BACKGROUND**

- More than 500,000 cases of bloodstream infections (BSI) are reported in the United States annually.
- One treatment strategy for BSI involves transitioning from intravenous (IV) therapy to oral agents once a patient is clinically stable.
- Switching from IV to oral therapy may decrease cost, infection risk, and length of hospital stay.

**OBJECTIVE**

- To examine effectiveness of partial oral antibiotic regimens in uncomplicated BSI due to *Streptococcus* species compared to standard IV only therapy.

**METHODS**

- Adults with uncomplicated BSI due to *Streptococcus* species from April 2016 through June 2020 in 7 hospitals within Prisma Health in South Carolina were evaluated.
- Patients who died within 7 days of BSI were excluded to reduce impact of survival bias.
- Multivariate Cox proportional hazards regression was used to examine time to treatment failure, defined as a composite of all-cause mortality and BSI recurrence within 90 days.

**RESULTS**

- Overall, 222 patients were included in analysis; 99 received only IV antibiotics and 123 received partial oral therapy [Figure 1].
- Median age was 62 years; 116 (52.3%) were men.
- Most patients in partial oral group were transitioned to outpatient IV antibiotics [Figure 2].
- Treatment failure rates were 12.0% and 4.4% in IV only and partial oral therapy groups, respectively (p=0.04).
- After adjustments in multivariate Cox proportional hazards model, there was no difference in risk of treatment failure between partial oral and IV only groups.

**CONCLUSIONS**

- Transitioning patients from IV to oral antibiotics may be a reasonable strategy for managing uncomplicated BSI due to *Streptococcus* species.
- Partial oral therapy does not seem to have a higher treatment failure rate than standard IV only therapy and may spare many patients from outpatient IV antibiotics.

**REFERENCES**


**DISCLOSURE**

The authors of this presentation have no disclosures concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.