ABSTRACT
Background: Hospital admissions are a key cost driver among patients with ABSSSI. Data suggests that many ABSSSI patients are unnecessarily hospitalized and can be effectively and safely managed as OP patients in a substantially lower cost.

Methods: A single-dose ORI has the potential to shift care from the inpatient to OP setting in selected ABSSSI patients. In phase II trials, a single dose of ORI had comparable efficacy and safety to twice daily IV VAN for 7 days in ABSSSI patients treated in the OP setting. This study sought to compare the 30-day hospital admission rates and mean (standard deviation) (SD) healthcare costs among ABSSSI patients who received ORI or VAN in the OP setting.

INTRODUCTION

• Study Design and Population
  - Retrospective cohort analysis of the Truven Health MarketScan Databases between 01/01/2016 and 12/31/2016.
  - Two MarketScan Research Databases (MarketScan Commercial and MarketScan Medicare Supplemental Databases) were used for this study.

• Inclusion criteria
  - Age ≥18 years
  - ≥180 days of continuous enrollment in medicaid/service beneficiary post index day
  - ≥60 days of continuous enrollment in medicaid/service beneficiary post index day

OUTCOMES: 30 days hospital admissions and 30 day total healthcare costs.
System: During the study period, 130 and 689 patients received ORI and VAN, respectively, met inclusion criteria. Groups were well balanced at baseline.

Comparison of 30-Day Total Healthcare Costs Between ORI and VAN

• Total healthcare costs in the 30 days post-index
  - Total healthcare costs in the 30 days post-index are significantly lower for patients who received ORI versus VAN ($10,096 (8865) vs. $12,779 (28,773), p < 0.0001).

• 30-day inpatient admission (yes vs. no)
  - Patients who received ORI had a significantly lower 30-day inpatient admission rate vs. patients who received VAN (0.8% vs. 10.2%, p < 0.0001).

• Total cost (SD) of 30 post index days
  - Baseline comparisons between ORI and VAN (patients who received ORI or VAN in the OP setting).

• Charlson comorbidity index (mean, SD)
  - Charlson comorbidity index (mean, SD) was lower for patients who received ORI versus VAN (0.1719 vs. 0.3197, p < 0.0001).

• P value
  - P value for the comparison of ORI versus VAN.

CONCLUSION

• Results suggest ORI provides a single-dose alternative to multi-dose VAN in the management of ABSSSI and may result in lower 30-day hospital admission rates.

RESULTS

• Difference in mean (SD) total healthcare costs among ABSSSI patients treated in OP and inpatient settings.

• Charlson Comorbidity Index (one additional point)
  - Charlson Comorbidity Index (one additional point) was lower for patients who received ORI versus VAN (1.06 vs. 1.10, p = 0.0003).

• Decade increase in age
  - Decade increase in age was lower for patients who received ORI versus VAN (0.98 vs. 1.03, p = 0.0362).

• Non-life-threatening condition
  - Non-life-threatening condition is a key cost driver among patients with ABSSSI.

• Life-threatening condition
  - Life-threatening condition is a key cost driver among patients with ABSSSI.

• Any inpatient service during baseline
  - Any inpatient service during baseline was lower for patients who received ORI versus VAN (0.84 vs. 0.92, p < 0.0001).

• Predictors of 30-Day Hospital Admissions in Multivariate Analysis

• Predictors of 30-Day Total Healthcare Cost in Multivariate Analysis

METHODS

• Demographics
  - Demographics of patients who received ORI or VAN in the OP setting.

• Site of infection during skin diagnosis
  - Site of infection during skin diagnosis is a key cost driver among patients with ABSSSI.

• Type of skin infection at skin diagnosis
  - Type of skin infection at skin diagnosis is a key cost driver among patients with ABSSSI.

• Infection severity at skin infection diagnosis (N, %)
  - Infection severity at skin infection diagnosis is a key cost driver among patients with ABSSSI.

BASELINE COMPARISONS BETWEEN ORI AND VAN

• Comparison of All-Cases 30-Day Hospital Admission Between ORI and VAN

• Comparison of 30-Day Total Healthcare Costs Between ORI and VAN

REFERENCES

• Nathwani D et al, Pan-European early switch/early discharge opportunities exist for hospitalized patients with methicillin-resistant Staphylococcus aureus complicated skin and soft tissue infections.

• Talan DA et al. Factors associated with decision to hospitalize emergency department patients with skin and soft tissue infection.

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• Acknowledgments:
  - Limitations include those associated with administrative databases, including uncontrolled comorbid conditions and data which may have not been coded accurately or fully captured. In addition, related healthcare costs were based on paid amounts of adjudicated claims, including insurer and health plan payments as well as patient cost-sharing in the form of copayment, deductible, and coinsurance; these costs may not be generalizable to all healthcare plans.

• Future randomized multicenter comparator studies are needed to validate these findings. Specific predictors related to hospital admission and total costs should be tested prospectively.

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