BACKGROUND: Analysis of the H-CUP database shows that in the US, 3.86 million ED visits were from patients with a primary diagnosis of Acute Bacterial Skin and Skin Structure Infections (ABSSSI), leading to ~700K admissions. Analysis of hospital claims indicates 74% of ABSSSI admissions involve empiric treatment with methicillin-resistant Staphylococcus aureus (MRSA)-active antibiotics. Hospitalization costs could be reduced if moderate- to severe ABSSSI patients were treated to a greater extent in outpatient setting, including use of oral vancomycin. Oritavancin is indicated as a single, once-only 1200 mg IV dose for the treatment of patients with acute bacterial skin and skin structure infections (ABSSSI) caused by susceptible isolates of designated gram-positive bacteria, including MRSA. The aim of our analysis was to quantify the economic value of using oritavancin for ABSSSI patients at risk of MRSA from a US hospital perspective.

METHODS: A decision analytic model based on current clinical practice was developed to estimate the economic value of decreased hospital resources by using oritavancin. Utilization of antibiotics was informed by analysis of the Premier Healthcare database. Demographic and clinical data were derived from the literature. Observation, laboratory, administration costs were based on Medicare National Limitation amounts. Drug costs were 2014 wholesale acquisition costs.

RESULTS: For a hypothetical US hospital treating 1,000 ABSSSI patients per year eligible for IV MRSA antibiotics, use of oritavancin instead of vancomycin in moderate- to severe ABSSSI (25.79% of all ABSSSI patients) facilitates shifting patients to the observation/outpatient setting, with a total annual cost savings of $1,400. CONCLUSIONS: Using oritavancin instead of vancomycin in moderate- to severe ABSSSI patients, including those at risk of MRSA, is estimated to deliver an estimated cost reduction of $1,398/patient by shifting patient care to the observation/outpatient setting and decreasing resource utilization.

Results

In shifting patients from the base case to the scenario treatment involving oritavancin, less patients were treated as inpatients and observation unit use increased.

- The budget impact model results indicate that, in a cohort of 1,000 ABSSSI patients eligible for IV MRSA antibiotics/year, using oritavancin in moderate- to severe ABSSSI (25.79% of patients) instead of vancomycin translates to a total cost savings of 13.28% from the hospital perspective, or approximately $1,397.89 per patient (Figure 2)

- This calculation is inclusive of inpatient, observation, and outpatient costs. At the current WAC price of $131.69 (WAC) per patient:
  - Outpatient costs were reduced by $1,382.82 per patient
  - Observation costs increased by $111.25 per patient
  - Outpatient costs were reduced by $127.32 per patient
  - Cost savings, by category, were as follows: drug administration (23.08%), laboratory (27.04%) and adverse events (22.02%) (Figure 3)

Conclusions

- Oritavancin may reduce total hospital costs when used instead of vancomycin for the treatment of moderate-severe ABSSSI in a predominantly outpatient/observation setting.

  - Inpatient cost savings were derived from a reduction in hospitalizations.

  - Observation costs increased slightly with greater use of observation units.

  - Outpatient costs decreased due to lower drug administration burden.

References