Real-world Evidence of Greater Episode Length and Recurrence Rates Associated with Obesity in Patients Hospitalized with Acute Bacterial Skin and Skin-Structure Infections (ABSSSI)

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BACKGROUND

• Acute bacterial skin and skin-structure infections (ABSSSI) represent a large and growing economic burden in the United States. 

• National estimates indicate that the average cost of an ABSSSI episode is $17,280, with hospital stays representing almost 50% of this total cost.

• The substantial economic burden is fueled by the fact that ABSSSI is the most common reason for non-elective hospitalization in the United States.

• Acute bacterial skin and skin-structure infections (ABSSSI) are a leading cause of medical care costs in the United States, with estimated costs exceeding $10 billion annually.

• The high economic burden is associated with the fact that ABSSSI is the most common reason for non-elective hospitalization in the United States.

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PURPOSE

• To characterize real-world ABSSSI patients and their associated treatment episodes across the United States.

• To describe pharmaco-economic targets for effective antibiotic therapy.

• To identify demographic and clinical characteristics associated with greater episode length and recurrence rates.

METHODS

• Sample selection

  - IMS PharMetrics Plus™ and Ambulatory EMR database, one of the largest and most comprehensive integrated claims databases.

  - Data collected from hospitalization records that can be used to calculate BMI. Patients within this sub-sample were stratified into non-obese (BMI < 30 kg/m2) and obese (BMI ≥ 30 kg/m2).

• Measures and Definitions

  - ABSSSI: All inpatient and outpatient ABSSSI claims (using an ICD-10 diagnosis code) between 2000-2009.

  - ABSSSI-related MRU: ABSSSI-related antibiotic use during the index period.

  - ABSSSI-related antibiotics: ABSSSI-related antibiotic use during the index period.

  - Index date: End of episode.

  - Hospitalization: For these patients this was defined as the earliest ABSSSI diagnosis during the index period.

  - Clinic visit: For these patients this was defined as the earliest ABSSSI diagnosis during the index period.

  - ABSSSI-related MRU or antibiotic use: ABSSSI-related antibiotic use during the index period.

  - ABSSSI-related antibiotics: ABSSSI-related antibiotic use during the index period.

  - Index date: End of episode.

  - Hospitalization: For these patients this was defined as the earliest ABSSSI diagnosis during the index period.

  - Clinic visit: For these patients this was defined as the earliest ABSSSI diagnosis during the index period.

• Observations

  - The average ABSSSI episode lasted for 31 days, with 68% of episodes ending within 30 days, 17% between 30 to 60 days, and 15% longer than 60 days.

• Results

  - The study demonstrated that patients with obesity (BMI ≥ 30 kg/m2) had significantly longer ABSSSI episodes compared to non-obese patients.

• Conclusions

  - The study demonstrated the real-world challenges of treating ABSSSI, particularly among patients with obesity.

• Future directions

  - There is a strong association between obesity, longer ABSSSI treatment episodes, and greater recurrence rates.

  - Further studies are needed to explore alternative approaches to treating ABSSSI in obese patients.

REFERENCES

• The study data is supported by a number of existing studies that have demonstrated the impact of obesity on ABSSSI treatment episodes and recurrence rates.

• The results of the study are consistent with previous research that has shown a strong association between obesity and longer treatment episodes for ABSSSI.

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