

Patterns of Healthcare Resource Use and Costs for patients with Severe Asthma-related Exacerbations in Brazilian Private System

Poster No. A3019/P732

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Aims

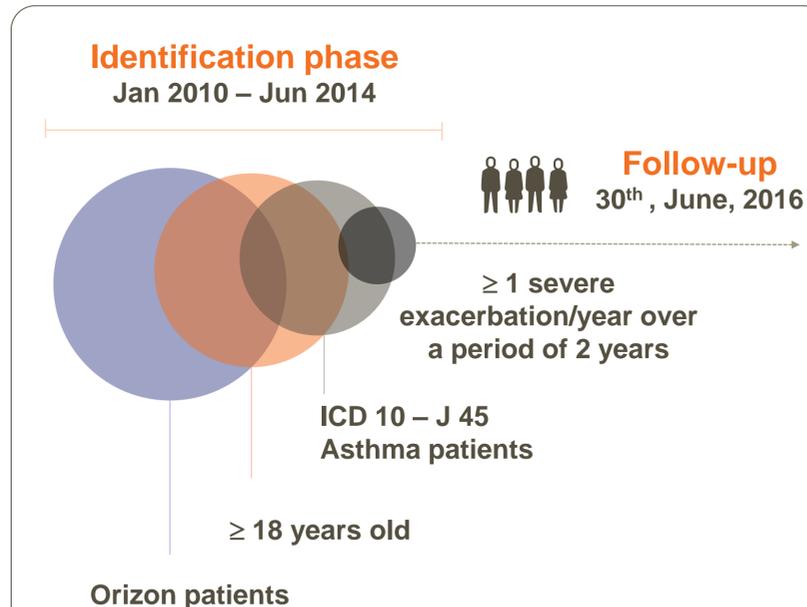
- Asthma related exacerbations represent a major burden for patients and for healthcare systems^{1,2}. Understanding the patterns of resource use and costs of these events is important for decision-makers.
- **Main goal:** to describe healthcare resource use and direct medical costs of severe asthma exacerbations in the private healthcare system in Brazil.

Methods



Orizon is an administrative database, representing approximately 13% of the Brazilian private healthcare plans.

- **Asthma-related severe exacerbations** were defined as any emergency room visit (ER) or hospital admission, using the following primary ICD-10 codes: J45, J46, J11, J12.8, J12.9, or J13-18. Additional codes (J20, J96.0, R05 and R06) were included when associated with systemic corticosteroid use.
- **Exacerbations** were considered different episodes if they occurred more than 7 days apart.
- **Event Validation:** the codes cited above were selected from scientific literature and validated by a pulmonologist and a general practitioner with experience in private healthcare setting.
- **Costs** are presented in United States Dollar (USD)*



- Patients were followed until June 30th, 2016, death or inactivation in the insurance plan, whichever occurred first.
- Results refers to the second year of follow-up for patients who demonstrated to have at least one severe exacerbation per year

Results

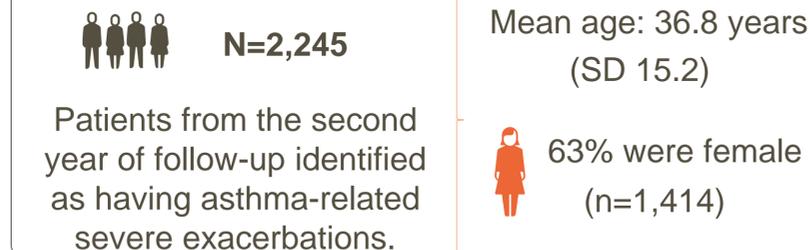
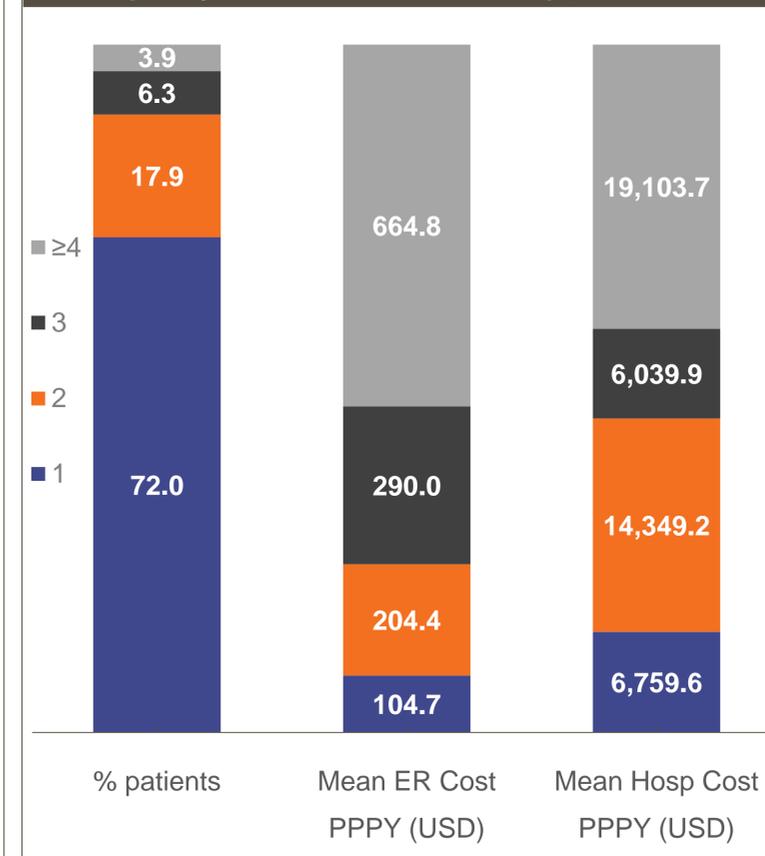


Figure 1 represents the main results regarding healthcare resource use and direct medical costs of severe asthma exacerbations in the private healthcare system in Brazil.

Figure 1. Distribution of patients and costs per event (ER visit or hospitalization) per patient per year according to the frequency of severe exacerbations (1, 2, 3 or 4 or more)



*The conversion rate used refers to June 30, 2016, according to the Central Bank of Brazil. 1 Brazilian Reais (BRL) = 0,3115459 (USD)



Patients with 4 or more exacerbations

- Mean length of stay = 9 days, three times the average of the asthma patient in the public system³
- 35.4% of them needed to be admitted to the Intensive Care Unit (ICU) at least once.

Conclusions

The resource use and the direct medical costs of patients with frequent severe exacerbations increased as the number of severe exacerbations increased. The costs of these events were, on average 3 times (PPPY) higher if patients required ER or hospitalizations. Identifying and preventing patient with frequent hospitalizations could reduce the burden to the healthcare system in Brazil.

References

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Acknowledgements

- This study was funded by GSK (PRJ2581).
- The authors RAC, CRS, LTMS are GSK employees and own GSK shares; BMGV, DSBA, FMS, KV are GSK employees; EP, RSR, HMSN MSG have no conflicts of interest to disclose.
- The authors wish to acknowledge Ronan Valladares (GSK complementary worker) for Operational and Editorial support.

