

ALBUTEROL: OFTEN USED AND HEAVILY ABUSED

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INTRODUCTION

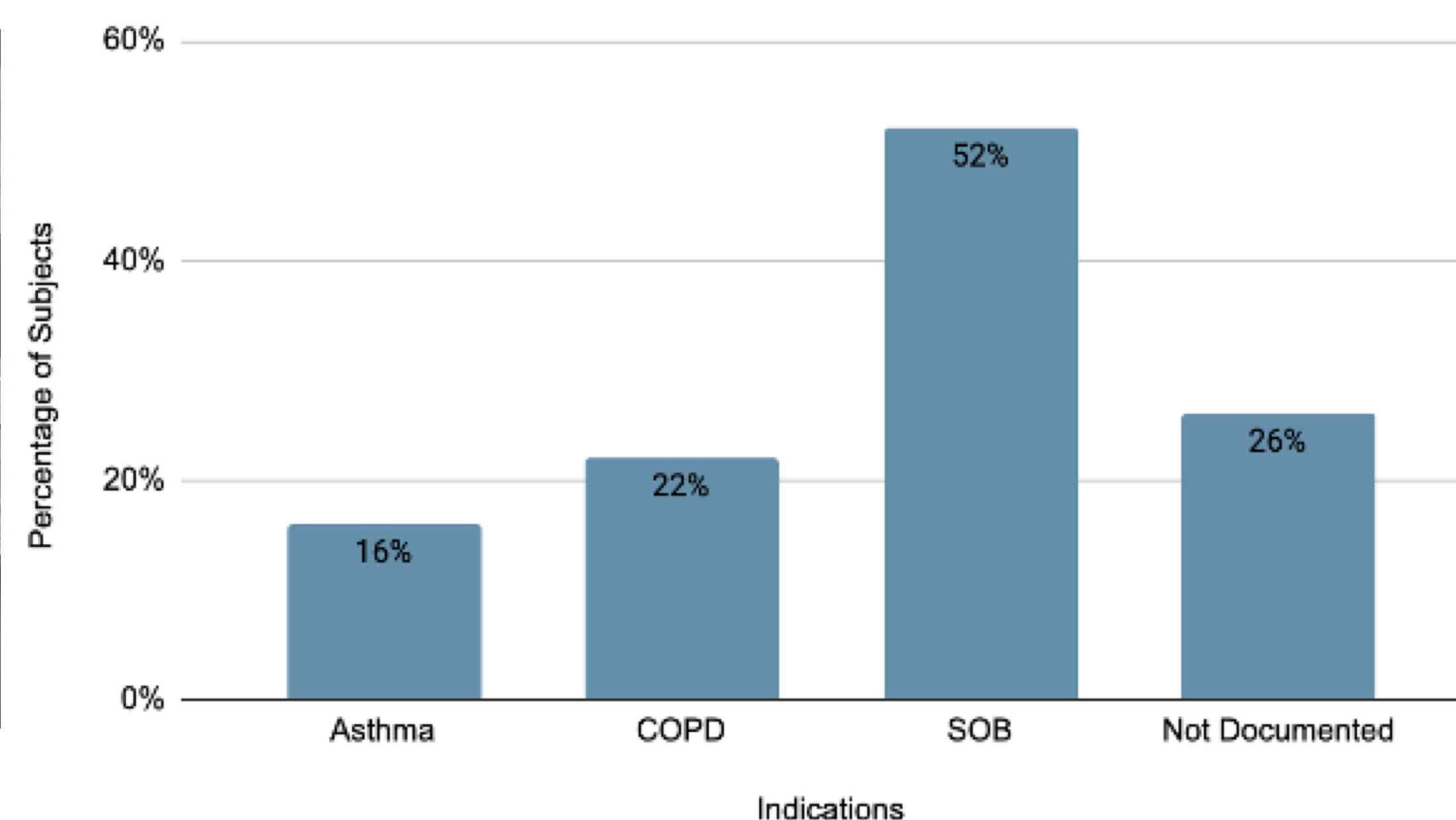
- Albuterol (ALB) is the most commonly prescribed aerosolized medication worldwide.
- Although a relatively safe medication, its use without a clear indication could be associated with unwanted side effects, addition of unnecessary time to therapy and overall cost to the respiratory care department.
- The aim of this study was to evaluate if ALB utilization was associated with documented indications including diagnosis and physical exam

RESULTS

- A total of 50 EMR from subjects with a mean age of 60 years(+18; range:18-88) were reviewed for the study.
- A small percent of subjects who received ALB had a diagnosis or history of asthma (16%) or COPD (22%) while 46% reported history of allergies.
- Shortness of breath was the most common diagnosis for subjects receiving ALB (26%), followed by hypoxemia (14%), COVID-19 (12%), stroke (12%). Only 2% of subjects had a diagnosis of asthma and 4% of COPD exacerbation.
- The most commonly documented BBS prior to ALB were clear (60%) or diminished (42%). Only 4 subjects (17%) while 20% reported “coarse” breath sounds.
- ALB plus ipratropium was ordered for 26 patients (51%). Some other subjects received Symbicort (8%), Pulmicort (6%), and Mucomyst (2%).
- ALB 2.5 mg was administered Q6H in the majority of the subjects (98%).

METHODS

- Retrospective review of electronic medical records (EMR) of subjects 18 years and older admitted to an adult floor unit who received at least one dose of ALB at a Level-1 Trauma Center in San Antonio, Texas.
- Demographic information, history of COPD and asthma, admission diagnosis, use of bronchodilators, frequency of administration, and bilateral breath sounds (BBS) via auscultation were recorded for analysis. Descriptive statistics were used to report data. IRB approval was obtained.



Breath Sounds	% of Subjects	% of Subjects
Clear	60.0%	59.4%
Diminished	42.0%	84.4%
Clear and Diminished	36.0%	46.9%
Coarse	20.0%	9.4%
Wheezing	8.0%	6.3%
Coarse Crackles	4.0%	3.1%
Diminished/Coarse	2.0%	6.3%
Undocumented	0.0%	20.0%

CONCLUSION

According to the results of this study, the great majority of patients admitted to this hospital area received frequent doses of albuterol despite not having a history of obstructive airway disease or auscultation to support its use. A stricter protocol for ALB administration may dramatically decrease the misuse of this important medication.

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