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## Introduction

In the United States, asthma is increasing in prevalence now affecting 25.7 million people.

Patients with asthma are more likely to have comorbid atopic dermatitis and allergic rhinitis and may require multiple formulations of corticosteroids.

It is imperative that prescribers be aware of a patient's total steroid exposure (steroid burden) in order to monitor side effects and recommend or modify treatment.

Evidence-based methods to educate patients and to monitor steroid use/adverse effects are scarce in the literature.

## Objective

We developed an electronic medical record (EMR) tool for patients treated with corticosteroids in order to:

- Monitor side effects
- Provide an intervention
- Educate patients
- Provide Documentation

## Design & Methods

We conducted a quality improvement study on all patients with a diagnosis of asthma treated with inhaled corticosteroids.

Over an 8-month period, 75 patients with 101 patient encounters were analyzed.

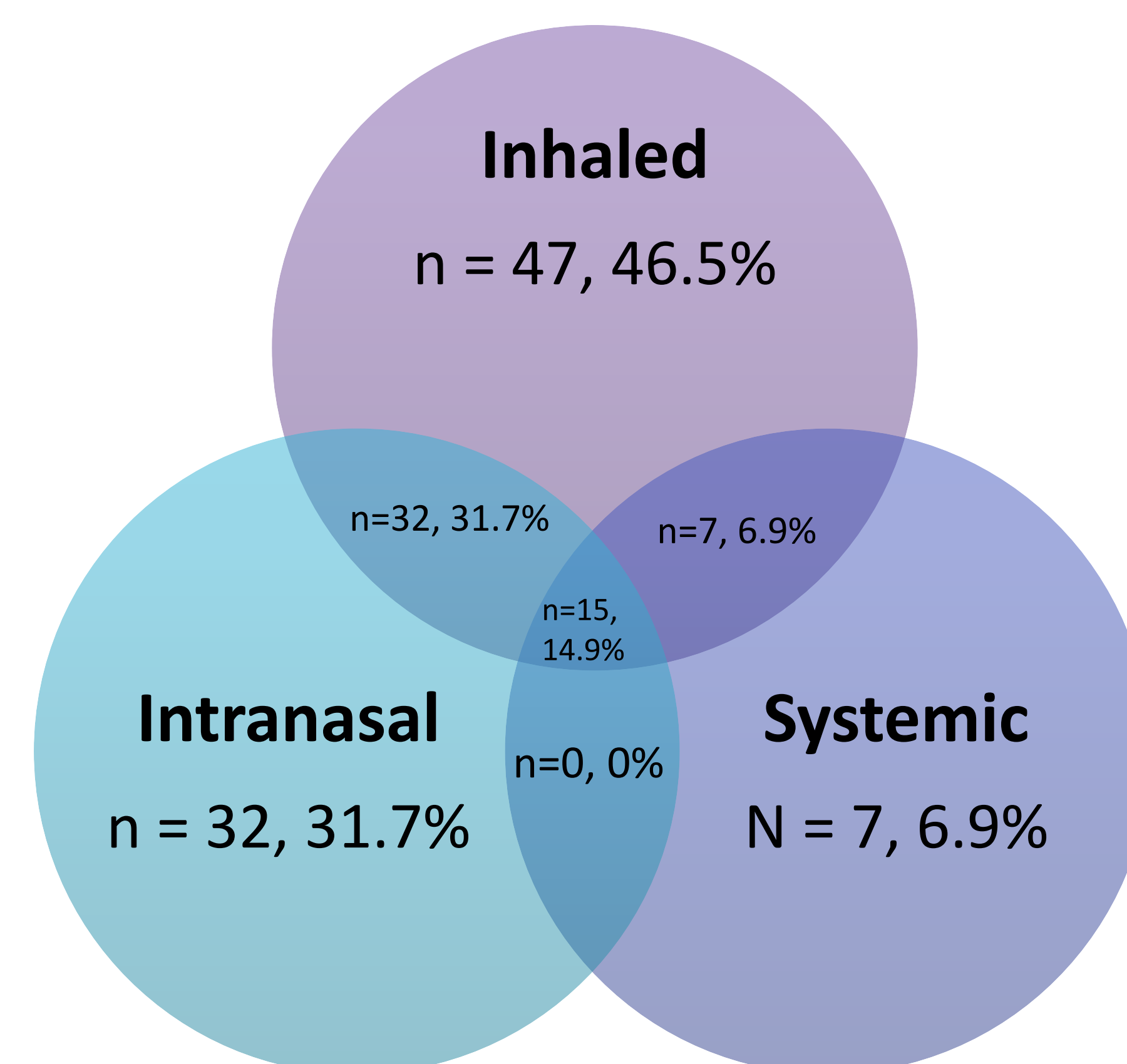
Using our EMR tool during routine visits, data was collected on type of corticosteroid, dose and frequency of administration, side effects, interventions, patient counseling and satisfaction.

Total steroid burden was determined by a scoring system and assigned as low, medium and high dose.

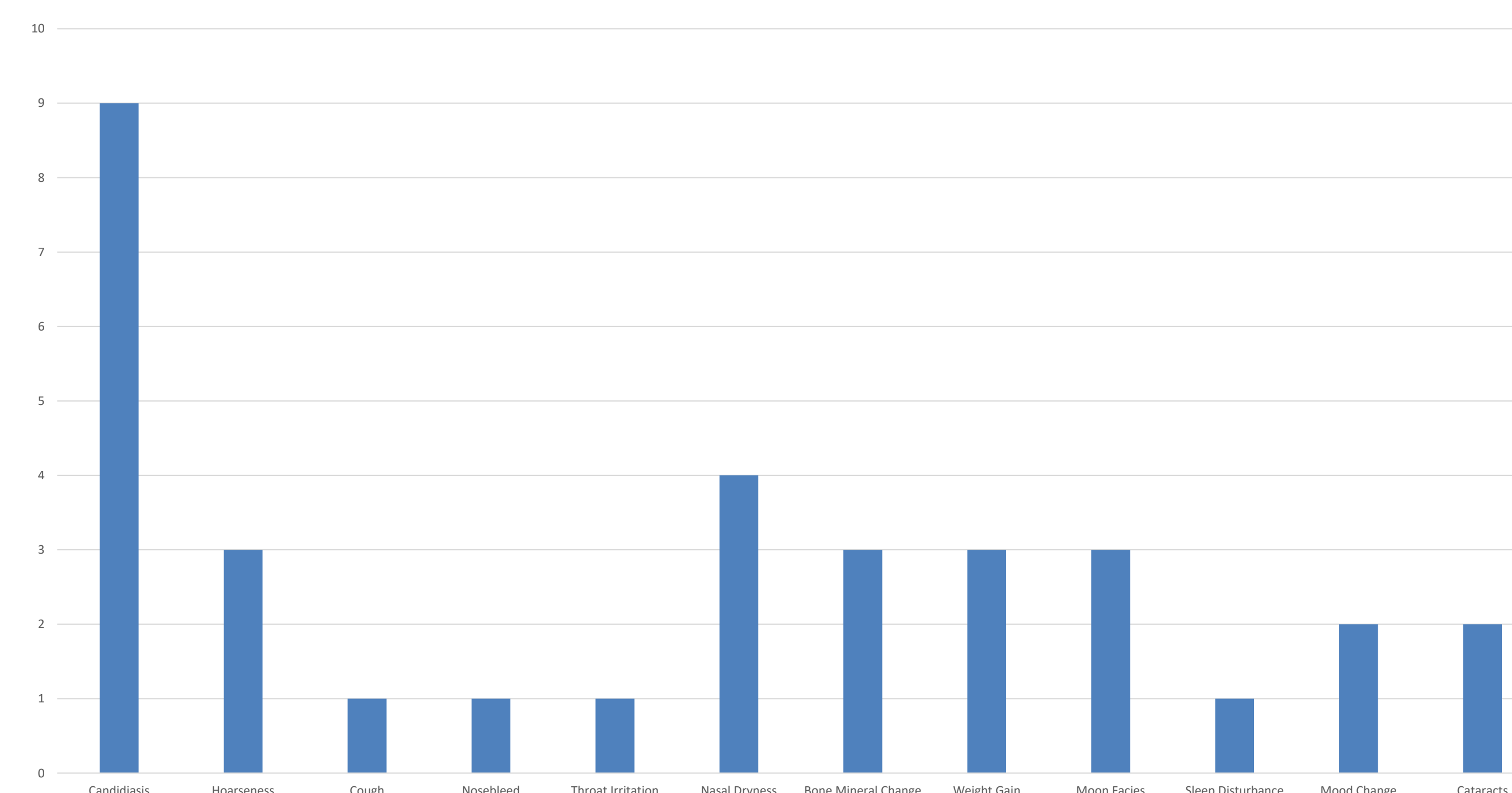
## Results

### Demographics

- **Age** – average = 58.2 years
- **Female/Male** – 48 (64%)/27 (36%)



Side Effects- Number of Events



Intervention for Corticosteroid Burden	Frequency
Decrease Dose	4.95%
Increase Dose	5.94%
Discontinue	0.99%
No Change/Monitor	86.10%

## Results

Side effects including candidiasis, dysphonia, throat irritation, reduced bone mineral density, and moon facies were reported in 15% of encounters.

Patients with medium and high steroid burdens had more side effects.

Counseling was performed at 95% of encounters without significance between presence vs absence of side effects (Fisher's Exact Test, p=0.7917).

94% of encounters were met with patient reported satisfaction. 17/75 (23%) of patients were started on biologic therapy for asthma during the course of the study. 70% of those on biologics had a high steroid burden

## Conclusion

Our EMR tool is an efficient way to quantify steroid burden and identify adverse reactions from corticosteroid use.

Continued evaluation of this EMR tool could standardize a method for documenting steroid burden in asthma patients.

## References

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