Quality of Care for Asthmatic Patients at an Urban Federally Qualified Health Center (FQHC)

Indrani Kar, Doctor of Pharmacy Candidate 2013[1], Sharon E. Connor, PharmD[1], Eletta L. Cameron, LSW[2], and Dawna Woodyear, MD[2]
[1]University of Pittsburgh School of Pharmacy, Pittsburgh, PA [2]UPMC Matilda Theiss Health Center, Pittsburgh, PA

INTRODUCTION

- **Asthma**:
  - Effects 1:15 Americans (Annual U.S. Prevalence Statistics for Chronic Diseases)
  - Disproportionately burdens socioeconomically disadvantaged communities
  - Is a leading health disparity
- **Underserved patient treatment**:
  - Episodic treatment due to lack of following current guidelines

UPMC Matilda Theiss is a FQHC that serves approximately 1,300 primarily underserved patients per year in a medical home model.

OBJECTIVES

- Describe the prevalence of asthma at the health center
- Develop **baseline** knowledge of asthma management

METHODS

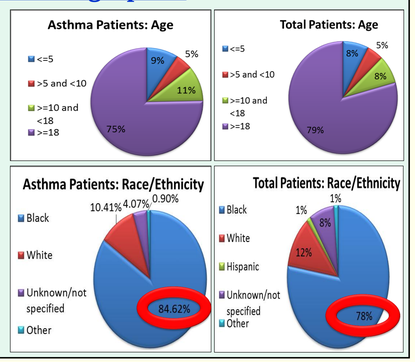
- Reviewed medical records for patients with a diagnosis of asthma seen between 5/1/10 and 4/30/11
- Assessed several factors: demographics, spirometry, medication use, asthma severity, peak flow monitor education, etc
- UPMC Total Quality Council approval as QI project

RESULTS

Overview and Demographics

- 1245 patients were seen between 5/1/10 and 4/30/11
- 221 (**17.8%**) have an asthma diagnosis
- Reviewed 218 (**17.5%**) charts (3 patients deceased)

	Male	Female
Total patients (1245)	28%	72%
Asthma patients (221)	29%	71%



RESULTS continued

Recorded items in electronic medical records

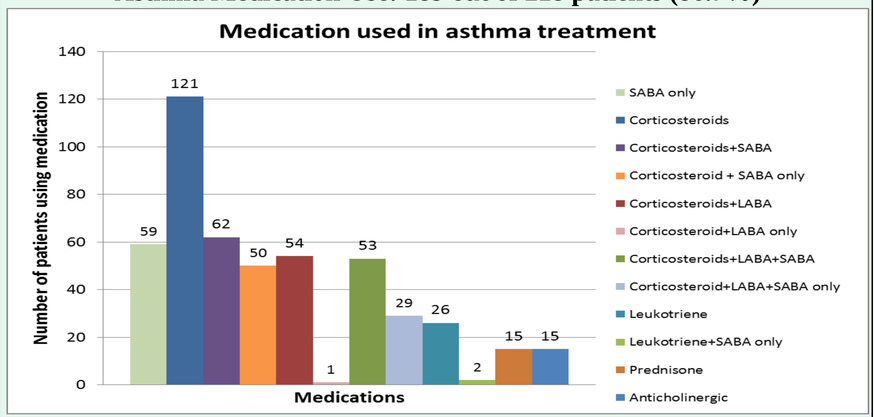
- *Severity:* Recorded for 9 (**4.1%**) patients
- *Spirometry Scans:* Documented for 4 of 13 tested patients
- *Smoking Cessation:* Of 55 smokers (25.2%), 12 (**21.8%**) were referred for smoking cessation
- *ER visits for asthma:* 37 patients (**17.0%**)
- *Education:* For 3 patients on peak flow meter use

Documented pharmacy services

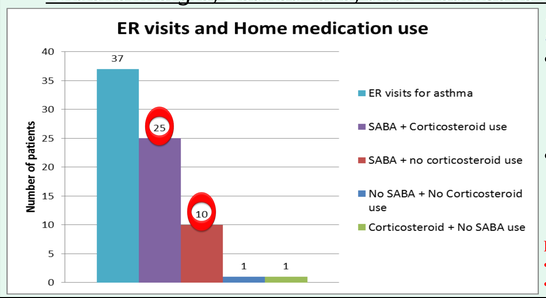
- **Smoking cessation** and **Peak flow** meter education
- **Limits**: No link in medical record to asthma action plans

Medication use

Asthma Medication Use: 189 out of 218 patients (86.7%)



- *Long-term therapy (Total corticosteroid use)*: **64%** (121)
- *Short-term therapy (Total short acting beta agonist use)*: **96.8%** (183)
- *Short-term therapy (Short acting beta agonist only)*: **31.2%** (59)
- *Leukotriene + Corticosteroid + Prednisone*: 0%
- *Anticholinergic, Leukotriene, and Prednisone monotherapy*: 0%



Medication Use in ER visits

- Patients used SABA and corticosteroids in **67.6%** (25 of 37) ER visits
- Patients used SABA and ***NO*** *corticosteroids* in **27%** (10 of 37) ER visits

Figures:
- LABA – long acting beta agonist
- SABA – short acting beta agonist

CONCLUSIONS

Comparison of FQHC results with National statistics

National Heart Lung and Blood Institute (NHLBI):
- Lifetime asthma prevalence in the United States: **10.5%**
- 70.7 per 10,000 annual patient ER visits for asthma
- Lack of proper documentation for assessment

UPMC Matilda Theiss:
- Health center prevalence: **17.8%**
  - **1.7 times** that of the U.S. population
- Majority of asthma patients are African American: **84.6%**
  - **6.6% increase** from general patient population
  - Approximately **8 times** that of asthmatic Caucasians
- Health center ER visits: **17.0%**
- Minimal documentation of many components for appropriate asthma treatment (ex. Severity)

Medication Use

- **Lack** of severity recorded in chart makes analysis of asthma medication breakdown difficult
- **31.2%** on short acting therapy **ONLY** and may require follow up for appropriate long acting therapy additions
- **3.2%** of patients may require follow up, because patients are **not** on short acting therapy
- **27%** of asthma patients going to the ER for asthma were **not** on a corticosteroid

Role of the Pharmacist

The NIH 1995 publication, *The Role of the Pharmacist in Improving Asthma Care*, indicates that "[pharmacists help improve the pharmacologic management of asthma and overall control by teaching patients about their medications, reviewing with patients how to use their medications, and discussing with patients the importance of using medications as prescribed.]" **Pharmacists can assume this role at the health center.**

Quality Improvement Suggestions

1. **Increase incorporation of pharmacists into normal asthma care (education and smoking cessation)**
2. **Encourage improved documentation of asthma severity, action plans, and spirometry scans (increased technology use of electronic medical record) to better assess quality of care Encourage pharmacists and physicians to increase long term therapy prescribing and education for asthma patients**

Acknowledgements: Matilda Theiss staff and UPMC