



3.d.iii. IMPLEMENTATION OF EVIDENCE-BASED MEDICINE GUIDELINES FOR ASTHMA MANAGEMENT

PROJECT GOAL

Support implementation of community-based and evidence-based adult asthma best practices.

OVERVIEW

Asthma is a leading cause of preventable emergency room visits, hospitalizations, and missed school days in New York City’s poorest neighborhoods.¹ Furthermore, as noted in the New York State Asthma Surveillance Summary Report from 2013:²

Asthma remains a major problem in New York State... There were more than 160,000 emergency department visits and over 38,000 hospitalizations per year due to asthma during 2009-2011. The rates of asthma emergency department visits and hospitalizations in NYS are higher than the national rates for all age groups and higher than the Healthy People 2020 objectives. During 2009-2011, an average of 258 deaths occurred annually due to asthma in NYS... Additionally, only 30% of New Yorkers have an asthma self-management plan to help them control their asthma.

The report further indicates that one in every 10 adults and one in every 10 children in New York State (NYS) currently have asthma. This chronic disease remains an epidemic in New York with significant public health and financial consequences. Of more concern, there has been an upward trend in the prevalence of asthma among residents from 2001 through 2010, making it higher now than the national average.

While the asthma hospital discharge rate in NYS decreased approximately 11% from 2002 to 2011 and NYS’s asthma mortality rate decreased 24% in the past 10 years, the asthma emergency department rate increased 6% from 2005-2011.

MAIN COMPONENTS

Disparities persist among racial and ethnic groups. Non-Hispanic black adults and children experience some of the highest asthma prevalence rates in NYS. Non-Hispanic black and Hispanic middle and high school students also experience higher asthma prevalence rates when compared to all other racial and ethnic groups. In addition, for 2009-2011, the age-adjusted asthma emergency department visit, hospital discharge and mortality rates were higher among non-Hispanic black and Hispanic New Yorkers than non-Hispanic whites.

Evidence-based recommendations are largely derived from the Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma (EPR-3).³

Project Population Target: All ACP patients with asthma.

PATIENT ENGAGEMENT GOALS

- ▶ Educating all asthma patients about the importance of having an asthma action plan;
- ▶ Assessing and improving patients’ satisfaction with their quality of life, health, and function, including normal activity, such as exercise, attendance at school, and work;
- ▶ Reducing or eliminating the use of the emergency department (ED) and acute hospitals for asthma episodes;
- ▶ Improving patient self-management and self-monitoring of asthma.

INTERVENTIONS

- ▶ Implement evidence-based asthma management and referral guidelines among all PCPs, with a special emphasis on the importance of the asthma action plan incorporated into the PCPs’ EHRs along with

evaluation and treatment guidelines based on EPR-3 and the Asthma Care Quick Reference from the National Asthma education and Prevention Program.⁴

- ▶ Develop asthma registries based on claims, utilization, and EHR diagnoses. Track the appropriate use of long-term controller medication and PCP visit frequency.
- ▶ Develop patient educational material, including the importance of an asthma action plan written by the PCP and the identification of trigger factors, that is written in a culturally and linguistically appropriate way for ACP patients and at a fifth-grade level.
- ▶ Screen for depression and substance use among all patients with asthma. Refer when needed based on ACP's evidence-based guidelines.
- ▶ Optimize digital communication among PCPs; specialists treating asthma (pulmonologists, ENTs, allergists) and related co-morbidities, such as GERD and obstructive sleep apnea; and community-based programs, e.g., NYC school programs for asthma and NYS Regional Asthma Coalitions⁵ in Queens (Asthma Coalition of Queens), the Bronx (Bronx RESPIRAR Asthma Coalition), Brooklyn (North Brooklyn Asthma Action Alliance), Manhattan (Washington Heights/Inwood Network – Best Asthma Care for Kids (WIN-BACK).
- ▶ Encourage all PCPs to complete school asthma programs with prescriptions for rescue/quick-relief medications for their patients.
- ▶ Leverage ACP's IPA leadership partners to develop educational programs reinforcing evidence-based best practices, including the use of office-based spirometry, classifying patients' asthma severity, developing and documenting asthma action plans and referral guidelines, and developing an active partnership with patients and families to develop treatment goals and channels for open communication.
- ▶ Identify all patients in the asthma population who use the ED or are admitted for asthma based on RHIO's HIE and claims analysis.
- ▶ Risk stratify (e.g., not using controllers but regular use of rescue meds) asthma patients with more than one ED or hospital encounter in six months for more intensive care management by Community Health Workers to identify the root causes of these episodes, e.g., access problems with PCPs, pets in the home, psychosocial stresses such as illicit drug use, depression, barriers to medication adherence, health literacy issues, tobacco smokers in the household, other environmental factors. Refer complex patients to a health home when needed.

- ▶ Use Care Coordinators to address problems with patients getting access to referral physicians, pharmacies, needed social services, and transportation.
- ▶ Identify community pharmacies able and willing to help train patients on use of metered dose inhalers and spacers, and inform PCPs about such resources.
- ▶ Explore the use of telemedicine and telemonitoring⁶ to improve the management of difficult to control patients.
- ▶ Work with MCOs to arrange for peak flow meters for all patients with asthma and for nebulizers, spacers, home oxygen, and respiratory therapy when needed.
- ▶ Train staff and implement the Stanford Asthma Self-Management Program⁷ to serve both all high-risk patients, including those from the Latino and Chinese communities, with programs specifically designed for them.
- ▶ Universal screening for tobacco product use and implement the 5As of tobacco dependence when patients with tobacco use are identified.
- ▶ To reduce complications from influenza in those with asthma, the Advisory Committee on Immunization Practices (ACIP) recommends routine annual influenza vaccination for all persons aged ≥ 6 months who do not have contraindications.⁸

OUTCOME METRICS

- ▶ PQI # 15 Younger Adult Asthma: Admissions for a principal diagnosis of asthma per 100,000 population, ages 18 to 39 years;
- ▶ PDI # 14 Pediatric Asthma: Admissions for a principal diagnosis of asthma per 100,000 population, ages 2 to 17 years;
- ▶ Asthma Medication Ratio;
- ▶ Medication Management for People with Asthma (5 – 64 Years);
- ▶ Better-than-DSRIP-average rate of potentially preventable admissions (PPAs) for asthma;
- ▶ Better-than-DSRIP-average rate of potentially preventable ED visits (PPVs) for asthma.

/REFERENCES

- ¹<http://www1.nyc.gov/site/doh/health/health-topics/asthma.page>
- ²https://www.health.ny.gov/statistics/ny_asthma/pdf/2013_asthma_surveillance_summary_report.pdf
- ³<https://www.nhlbi.nih.gov/files/docs/guidelines/asthgdln.pdf>
- ⁴<http://www.nhlbi.nih.gov/health-pro/guidelines/current/asthma-guidelines/quick-reference>
- ⁵<https://www.health.ny.gov/diseases/asthma/coalitions.htm>
- ⁶<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4734754/>
- ⁷<http://patienteducation.stanford.edu/materials/>
- ⁸<http://www.cdc.gov/mmwr/volumes/65/rr/rr6505a1.htm>