

## Management of Asthma in Children and Adults

### Purpose

To improve asthma management in children and adults.

### Key Recommendations/Messages

- Assess and Monitor - assess and document asthma severity, identify triggers, conduct medical history and physical exam, assess medication use. Schedule a medical appointment for asthma at least every six months.
- Pharmacological Therapy - use stepwise approach to gaining control as quickly as possible and provide a rescue plan for acute exacerbations.
- Control Factors that Contribute to Severity- asthma exacerbations may be caused by a variety of triggers including allergens, pollutants, foods and drugs.
- Patient Education - education is an essential part of the overall management of asthma. Education includes the development of an asthma action plan.
- Asthma in all age groups may present only as repeated coughing, especially at night, with exercise and with viral illnesses, but these are particularly common patterns of presentation of asthma in children.

### High Risk Populations/Disparities

- In the elderly, the diagnosis of asthma is often not made or is missed. It is now becoming increasingly recognized that undiagnosed asthma is a frequent cause of treatable respiratory symptoms.
- Workers who are exposed to inhalant chemicals or allergens in the workplace can develop asthma and may be misdiagnosed as having bronchitis or chronic obstructive disease.
- More boys develop asthma during childhood; the prevalence of asthma in girls surpasses boys during adolescence.
- Among 20-30 year olds, the prevalence in women is nearly twice as high as in men.
- According to the New York State Department of Health Prevention Agenda (2013 – 2017), Monroe County has the highest emergency department visits for asthma in Western and Central New York.
  - According to the New York State Department of Health Statewide Planning and Research Cooperative System (SPARCS) data 2010-2012 SPARCS Data, within the “crescent” of Rochester, asthma admission rates are about 40% higher than the state average. A child or adult living in this area is more than nine times more likely to be hospitalized for their asthma compared to a similar individual living in the 14534 (Pittsford) zip code.
  - Three zip codes stick out for asthma hospitalizations: 14605, 14604 and 14621. These three zip codes are combined comprise the bulk of all the asthma hospitalizations in the County. In fact the asthma admissions for these zip codes are nearly double the state rate. When broken down by race, the Health Department data shows that the admission rate for blacks is nearly twice that of whites.
- For tree pollen and for grass and weed pollen, pollen counting stations in Rochester reported that the annual mean daily concentrations met or exceeded the National Allergy Bureau threshold for high concentration of pollen on 25% or more days per season. ([New York State Asthma Surveillance](#), October 2013).

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### Measures Commonly Used by National Organizations

#### CMS Meaningful Use

- **Asthma Pharmacologic Therapy:** Percentage of patients aged 5 through 40 years with a diagnosis of mild, moderate, or severe persistent asthma who were prescribed either the preferred long-term control medication (inhaled corticosteroid) or an acceptable alternative treatment. (*CMS Meaningful Use*)

#### HEDIS

- **Medication Management for People with Asthma:** The percentage of patients 5-64 years of age during the measurement year who were identified as having persistent asthma and who were dispensed appropriate medications and remained on their medications during the treatment period. Two rates are reported:
  - Patients who remained on asthma controller medication for at least 50% of their treatment period.
  - Patients who remained on asthma controller medication for at least 75% of their treatment period.

#### NYS DOH/QARR/HEDIS

- **Asthma Medication Ratio:** The percentage of patients 5-64 years of age who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of .50 or greater during the measurement year. This measure calculates a percentage of one year persistent asthmatics with a medication ratio  $\geq .50$ , where the medication ratio is the units of controller medications over total asthma medications (the units of controller medications plus units of reliever medications).

#### PQRS

- **Assessment of Asthma Control:** Percentage of patients aged 5 through 50 years with a diagnosis of asthma who were evaluated at least once for asthma control (comprising asthma impairment and asthma risk).
- **Asthma-Tobacco Use - Screening:** Percentage of patients (or their primary caregiver) aged 5 through 50 years with a diagnosis of asthma who were queried about tobacco use and exposure to second hand smoke within their home environment at least once during the one-year measurement period.
- **Asthma -Tobacco Use - Intervention:** Percentage of patients (or their primary caregiver) aged 5 through 50 years with a diagnosis of asthma who were identified as tobacco users (patients who currently use tobacco AND patients who do not currently use tobacco, but are exposed to second hand smoke in their home environment) who received tobacco cessation intervention at least once during the one-year measurement period.
- **Pharmacologic Therapy for Persistent Asthma:** Percentage of patients aged 5 through 50 years with a diagnosis of persistent asthma and at least one medical encounter for asthma during the measurement year who were prescribed long-term control medication.

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### Physician Resources

#### [American Lung Association](#)

Provides information including strategies for addressing asthma, education materials, the Asthma Educator Institute and guides to asthma policies for home and school.

#### **New York State Department of Health**

Provides educational information for physicians to use in partnership with patients.

- An education and communication tool between the physician and the patient and family designed to help families become proactive and anticipatory with respect to asthma exacerbations and their control.
  - [Asthma Action Plan](#) (in [English](#) and [Spanish](#))
- Tools for physicians and patients to use together to improve their partnership in managing asthma.
  - [Managing Asthma](#)
  - [Environmental Asthma Triggers](#)
  - [Peak Flow Meters and Logs](#)
- [Asthma Program Publication Request Form](#) – Publications available free of charge to New York organizations. Print and mail to address on form. (Some publications available for download only.)

#### [United States Environmental Protection Agency](#)

Provides multimedia resources for use with patients to understand and manage environmental asthma triggers.

### Patient Resources

#### [American Lung Association](#)

Offers online support community and information about understanding and controlling asthma and creating asthma-friendly environments at home, the workplace and in schools.

- [Better Breathers Clubs](#) (in Canandaigua, Henrietta, Rochester and Webster)

#### [Center for Disease Control – National Asthma Control Program](#)

Helps patients with asthma achieve better health and improved quality of life.

#### [Kids Thrive 585](#)

A child-focused Rochester-area organization that highlights good works occurring throughout the community and improves access to resources for children, caregivers and child advocates. Provides resources and child-friendly web and printable material on asthma.

#### [NYS Healthy Neighborhoods Program](#)

provides in-home assessments and interventions for asthma, health hazards in high-risk communities throughout the state. During a visit an outreach worker provides education, referrals and products to help residents correct housing hazards. Homes can receive an optional revisit and reassessment. (Healthy Neighborhoods Tracking System, NYSDOH)

#### **New York State Department of Health**

Provides educational information for families.

- Asthma Triggers at Home and in the Workplace
  - Have Asthma? Take A Look Around You (in [English](#) and [Spanish](#))
  - Asthma Trigger Tracker and Key Questions (in [English](#) and [Spanish](#))
  - [Is Your Asthma Work-Related?](#)
- Don't Let Asthma Knock the Wind Out of Your Child!
  - [Brochure](#) (in [English](#), [Spanish](#), [Creole](#) and [Chinese](#))

#### [United States Environmental Protection Agency](#)

Provides tools for parents, caregivers and children to understand and manage environmental asthma triggers.

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### References

Centers for Medicare & Medicaid Services (CMS) Meaningful Use Quality Measure. (A set of standards defined by the CMS Incentive Programs that governs the use of electronic health records and allows eligible providers to earn incentive payments by meeting specific criteria.) Available from:

<http://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index.html?redirect=/EHRIncentivePrograms/>

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Healthcare Effectiveness Data and Information Set (HEDIS). (A tool used by more than 90 percent of America's health plans to measure performance on important dimensions of care and service.) Available from: <http://www.ncqa.org/HEDISQualityMeasurement.aspx>

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