American Academy of Allergy Asthma & Immunology

Asthma: Spirometry Evaluation

DESCRIPTION:
Percentage of patients aged 5 years and older with a diagnosis of asthma who had spirometry results documented in the medical record within the last 24 months

NQS Domain:
Patient Safety

Data Source:
ICD-9-CM/ICD-10-CM diagnosis codes, CPT codes, electronic health record data or registry data is used to identify patients who are included in the measure's denominator. The listed numerator options are used to report the numerator of the measure.

Specialty of Indented Use: allergy/immunology, pulmonary care, family practice

DENOMINATOR:
All patients aged 5 years and older who have a documented diagnosis of asthma and who have been seen in the reporting physician's office within twenty four months

> **Denominator Criteria (Eligible Cases):**
> Patients aged 5 years and older on date of encounter
> **AND**
> **Diagnosis for asthma (ICD-9-CM):** 493.00, 493.01, 493.02, 493.10, 493.11, 493.12, 493.20, 493.21, 493.22, 493.81, 493.82, 493.90, 493.91, 493.92
> **Diagnosis for asthma (ICD-10-CM):** J45.20, J45.21, J45.22, J45.30, J45.31, J45.32, J45.40, J45.41, J45.42, J45.50, J45.51, J45.52, J45.901, J45.902, J45.909, J45.990, J45.991, J45.998
> **AND**
> **Patient encounter during the reporting period (CPT):** 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 99341, 99342, 99343, 99344, 99345, 99347, 99348, 99349, 99350

Denominator Exclusions:
Patients with a diagnosis of chronic obstructive pulmonary disease (COPD), patients with a physical inability to perform spirometry

NUMERATOR:
Patients who have a documented spirometry result in their medical record

CPT-I Codes to identify spirometry evaluation: 94010, 94014, 94015, 94016, 94060, 94070, 94620
CPT-II Codes to identify spirometry evaluation: Spirometry results documented & reviewed (3023F), documentation of medical reason(s) for not documenting and reviewing spirometry results (3023F-1P), documentation of patient reason(s) for not documenting and reviewing spirometry results (3023F-2P), documentation of system reason(s) for not documenting and reviewing spirometry results (3023F-3P), spirometry results not documented and reviewed, reason not otherwise specified (3023F-8P), D**ocumentation of:** spirometry evaluation and result from another treating clinician during the reporting period

Numerator Exceptions:
Documentation of medical reason(s) for not documenting spirometry results; documentation of patient reason(s) for not documenting spirometry results; documentation of system reason(s) for not documenting spirometry results

RATIONALE:

The National Asthma Education and Prevention Program Expert Panel Report 3 (EPR-3) guidelines recommend the use of spirometry to diagnose asthma and to monitor asthma severity and control (EPR-3 2007).

The guidelines state, “Objective assessments of pulmonary function are necessary for the diagnosis of asthma because medical history and physical examination are not reliable means of excluding other diagnoses or of characterizing the status of lung impairment. Although physicians generally seem able to identify a lung abnormality as obstructive (Russell et al.1986), they have a poor ability to assess the degree of airflow obstruction (Nair et al. 2005; Shim and Williams 1980) or to predict whether the obstruction is reversible (Russell et al. 1986). Furthermore, pulmonary function measures often do not correlate directly with symptoms. One study reports that one-third of the children who had moderate-to-severe asthma were reclassified to a more severe asthma category when pulmonary function reports of FEV1 were considered in addition to symptom frequency (Stout et al. 2006). Conversely, a majority of children in another study who had mild-to-moderate asthma classified by symptoms had normal FEV1 (Bacharier et al. 2004). These findings emphasize the importance of using multiple measures and the value of pulmonary function testing in a comprehensive assessment of asthma. For diagnostic purposes, spirometry is generally recommended over measurements by a peak flow meter in the clinician’s office because there is wide variability even in the published predicted peak expiratory flow (PEF) reference values. Reference values need to be specific to each brand of peak flow meter, and such normative brand-specific values currently are not available for most brands. Peak flow meters are designed as monitoring, not as diagnostic, tools in the office” (EPR-3 2007).

The EPR-3 guidelines further state, “The Expert Panel recommends the following frequencies for spirometry measurements: (1) at the time of initial assessment (Evidence C); (2) after treatment is initiated and symptoms and PEF have stabilized, to document attainment of (near) “normal” airway function; (3) during a period of progressive or prolonged loss of asthma control; and (4) at least every one - two years to assess the maintenance of airway function (Evidence B, extrapolation from clinical trials). Spirometry may be indicated more often than every one - two years, depending on the clinical severity and response to management (Evidence D). These spirometry measures should be followed over the patient’s lifetime to detect potential for decline and rate of decline of pulmonary function over time (Evidence C)” (EPR-3 2007).

EPR - 3. Expert panel report 3: guidelines for the diagnosis and management of asthma (EPR-3 2007). NIH Publication No. 07-4051. Bethesda, MD: U.S. Department of Health and Human Services; National Institutes of Health; National Heart, Lung, and Blood Institute; National Asthma Education and Prevention Program, 2007.

The Asthma: Spirometry Evaluation measure was developed by the American Academy of Allergy Asthma & Immunology (AAAAI). The measure is not a clinical guideline, does not establish a standard of medical care, and has not been tested for all potential applications. The CPT® contained in the measure specification is copyright 2004-2014 American Medical Association.

Measure Type: Process