

#	Measure	Numerator	Denominator	IOM Quality Domain	Donabedian Framework	Diagnosis Category	Measure Level*	Required Data Elements	Notes /Reference
* (A) Individual Clinician or Group of Clinicians (e.g. nurses, residents, attendings, fellows); (B) Facility (ED); (C) System-Wide Measure									
Respiratory Diseases									
8.1	Systemic corticosteroids in asthma patients with acute exacerbation	Number of asthma patients <18yrs of age receiving systemic corticosteroid during visit	Number of patients with a diagnosis of asthma (493.xx,) treated with >1 inhaled B-agonist, age >=2yrs and < 18 years of age	Effective	Process	Asthma	A, B	Unique visit identifier Patient arrival time Patient left ED time Medication name ICD-9 code Medication receipt time	-Inhaled B-agonist includes albuterol and levalbuterol.
8.2	Objective improvement in asthma severity score for patients with acute asthma exacerbations	Number of patients whose objective asthma score at discharge is less than the asthma score at presentation	Number of patients with a diagnosis of asthma (493.xx,) treated with >1 inhaled B-agonist, age >=2yrs and < 18 years of age	Effective, Patient-Centered	Outcome	Asthma	A, B	Unique visit identifier Patient arrival time Patient left ED time Medication name ICD-9 code Medication receipt time Asthma severity score Asthma severity score time	-Numerator value is 0 if only one or no asthma severity scores documented -Numerator value is 0 if discharge asthma severity score is greater than score at presentation Examples of objective asthma scores: 1. Ducharme FM et al. (2008). The Pediatric Respiratory Assessment Measure: A valid clinical score assessing acute asthma severity from toddlers to teenagers. J Pediatr. 152:476-80 2. Gorelick MH et al. (2004). Performance of a novel clinical score, the pediatric asthma severity score (PASS), in the evaluation of acute asthma. Acad Emerg Med.11(1):10-18 3. Smith SR et al. (2002). Validation of the pulmonary score: an asthma severity score for children. Acad Emerg Med. 9(2):99-104
8.3	Timeliness of inhaled B-agonist treatment for patients with acute asthma exacerbations	Time from arrival to first inhaled B-agonist administered	N/A	Effective, Timely	Process	Asthma	A, B	Unique visit identifier Patient arrival time Medication name ICD-9 code Medication receipt time	-Measure includes patients with a diagnosis of asthma (493.xx,) treated with >1 inhaled B-agonist, age >=2yrs -Inhaled B-agonists include albuterol and levalbuterol -Time of administration of inhaled treatment is measured (not time of order).
8.4	Evidence based guideline for bronchiolitis	Presence of an evidence based guideline for bronchiolitis treatment (Y/N)	N/A	Effective, Efficient	Structure	Bronchiolitis	B		Reference at: http://www.pediatrics.org/cgi/content/full/118/4/1774
8.5	Systemic corticosteroids in patients with croup	Number of croup patients < 18 years of age given a systemic corticosteroid during visit	Number of patients < 18 years of age with a diagnosis of croup (464.4)	Effective	Process	Croup	A, B	Unique visit identifier Patient arrival time Patient left ED time Medication name Medication receipt time ICD-9 code	-Systemic corticosteroid includes IV, IM or oral dexamethasone, oral prednisone, IV or IM methylprednisolone