



Measure Information

This document contains the information submitted by measure developers/stewards, but is organized according to NQF's measure evaluation criteria and process. The item numbers refer to those in the submission form but may be in a slightly different order here. In general, the item numbers also reference the related criteria (e.g., item 1b.1 relates to subcriterion 1b).

Brief Measure Information

NQF #: 0144

Corresponding Measures:

De.2. Measure Title: CAC-2 Systemic corticosteroids for Inpatient Asthma

Co.1.1. Measure Steward: The Joint Commission

De.3. Brief Description of Measure: Use of systemic corticosteroids in pediatric asthma patients (age 2 through 17 years) admitted for inpatient treatment of asthma. This measure is a part of a set of three nationally implemented measures that address children's asthma care (CAC-1: Relievers for Inpatient Asthma, CAC-3: Home Management Plan of Care (HMPC) Document Given to Parent/Caregiver) that are used in The Joint Commission's accreditation process.

1b.1. Developer Rationale: The routine practice of using corticosteroids for symptom management has been the standard of treatment for asthmatic patients since the early 1900's, yet as noted above, asthma treatment today for children is not optimally managed.

This measure assists health care organizations (HCOs) in tracking administration of systemic corticosteroids in the target population, therefore decreasing incidence of morbidity and mortality related to acute exacerbation of asthma in children.

Additionally, due to the high cost of treatment due to failed inappropriate care, use of recommended treatment to the pediatric asthmatic population will significantly decrease the cost of asthma care overall.

S.4. Numerator Statement: Pediatric asthma inpatients who received systemic corticosteroids during hospitalization.

S.7. Denominator Statement: Pediatric asthma inpatients (age 2 years through 17 years) who were discharged with a principal diagnosis of asthma.

S.10. Denominator Exclusions: Excluded Populations:

- Patients with an age less than 2 years or 18 years or greater
- Patients who have a Length of Stay greater than 120 days
- Patients enrolled in clinical trials
- Patients with a documented Reason for Not Administering Systemic Corticosteroids

De.1. Measure Type: Process

S.23. Data Source: Electronic Health Records, Other, Paper Medical Records

S.26. Level of Analysis: Facility, Other

IF Endorsement Maintenance – Original Endorsement Date: Mar 09, 2007 **Most Recent Endorsement Date:** Jul 31, 2012

IF this measure is included in a composite, NQF Composite#/title:

IF this measure is paired/grouped, NQF#/title:

De.4. IF PAIRED/GROUPED, what is the reason this measure must be reported with other measures to appropriately interpret results? Not applicable

1. Evidence, Performance Gap, Priority – Importance to Measure and Report

Extent to which the specific measure focus is evidence-based, important to making significant gains in healthcare quality, and improving health outcomes for a specific high-priority (high-impact) aspect of healthcare where there is variation in or overall less-

than-optimal performance. **Measures must be judged to meet all subcriteria to pass this criterion and be evaluated against the remaining criteria.**

1a. Evidence to Support the Measure Focus – See attached Evidence Submission Form

[0144_Evidence_MSF5.0_Data.doc](#)

1b. Performance Gap

Demonstration of quality problems and opportunity for improvement, i.e., data demonstrating:

- considerable variation, or overall less-than-optimal performance, in the quality of care across providers; and/or
- disparities in care across population groups.

1b.1. Briefly explain the rationale for this measure (e.g., the benefits or improvements in quality envisioned by use of this measure)

The routine practice of using corticosteroids for symptom management has been the standard of treatment for asthmatic patients since the early 1900's, yet as noted above, asthma treatment today for children is not optimally managed.

This measure assists health care organizations (HCOs) in tracking administration of systemic corticosteroids in the target population, therefore decreasing incidence of morbidity and mortality related to acute exacerbation of asthma in children.

Additionally, due to the high cost of treatment due to failed inappropriate care, use of recommended treatment to the pediatric asthmatic population will significantly decrease the cost of asthma care overall.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. (This is required for endorsement maintenance. Include mean, std dev, min, max, interquartile range, scores by decile. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included). This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.

According to the CDC, (2001 data) the death rate for children under 19 years of age with asthma has increased by nearly 80% since 1980 (Xu et al, 2007). A performance gap for overall care of pediatric asthmatics of 95% was determined in a study noted by Stoloff (2000). He which reviewed the treatment plans of physicians treating both children and adults.

There are many opportunities for improvement in the treatment of asthmatic children. An increase in the use of steroid therapy for uncontrolled asthmatic children is needed not only for disease treatment, but also in the identification of uncontrolled asthmatic symptoms. Tsai et al (2009) states that previous to 2009, current use of corticoid steroids in the Emergency Department is reported to be approximately only 60%-70% in the United States. He notes that from the information learned in his past study, that among those treated, "there often is a delay in delivery". Tsai also notes a study conducted on adolescents and adults, and believes that causes of delayed use of systemic corticosteroids was commonly due to clinical presentation or moderate oxygen saturation, a lower respiratory rate, or history of never being intubated in asthmatic attack.

A possible reason for this performance gap can be a result of poor adherence to written NHLBI guidelines, as noted by Stoloff's article above. There is discussion that physicians believe that mild persistent or mild intermittent asthma has very little risk of mortality, and do not take immediate action when patients present with symptoms. Post mortem evaluations of 51 deaths in children and adolescents during a 3 year period found that the primary cause of death was "sudden or dramatic worsening of disease" and not reflective of "disease severity" (Stoloff, 2000). He notes that the post mortem study found that 32% had a documentation of mild-persistent or even mild-intermittent asthma, some with no emergency visit or hospitalization history at all.

Voluntary data collection for accreditation purposes began for this measure in 2007. Based on 17 quarters of data reported to The Joint Commission, the aggregate performance rate for CAC-2a is 99.3% as of 2nd quarter 2011. Since data collection on this measure began nationally in the second quarter of 2007, aggregate performance has improved from 97.1%. Although current performance appears high, it should be noted that hospitals currently using this measure are self-selected, and therefore, presumably are more focused on improving the care delivered to asthma patients than other hospitals might be. For this reason, The Joint Commission considers that the "true" performance rate on this measure for all hospitals treating children's asthma is likely much lower.

1b.3. If no or limited performance data on the measure as specified is reported in 1b2, then provide a summary of data from the literature that indicates opportunity for improvement or overall less than optimal performance on the specific focus of measurement.

Stoloff, S (2000). Current Asthma Management: The Performance Gap and Economic Consequences. The American Journal of Managed Care. Vol. 6, No. 17. Sup. P.S918-928.

Tsai, C., Rowe, B.H., Sullivan A.F., Camargo, C.A. (2009). Factors associated with delayed use or nonuse of systemic corticosteroids in emergency department patients with acute asthma. *Annals Allergy Asthma Immunology* 2009;103:318-324.

Xu, J., Kochanek, K., Murphy, S., Tejada-Vera, B. (2007). National Vital Statistics Reports: Deaths: Final data for 2007. Retrieved November 17, 2011 from http://www.cdc.gov/nchs/data/nvsr/nvsr58/nvsr58_19.pdf

1b.4. Provide disparities data from the measure as specified (current and over time) by population group, e.g., by race/ethnicity, gender, age, insurance status, socioeconomic status, and/or disability. *(This is required for endorsement maintenance. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities include.) This information also will be used to address the subcriterion on improvement (4b.1) under Usability and Use.*

For children (9.3% general prevalence), asthma prevalence was higher among Puerto Rican Hispanics (18.4%), non-Hispanic blacks (14.6%), and the multiracial (13.6%) than among non-Hispanic whites (8.2%). Asthma prevalence was higher among males (10.7%) than among females (7.8%). Among poor children, Puerto Rican children, multiracial children, and non-Hispanic black children had higher asthma prevalence (23.3%, 21.1%, and 15.8%, respectively) than poor non-Hispanic white children (10.1%) (Moorman et al., 2011).

A systematic review of literature done by Elster et al.(2003) reveals differing treatments in preventive medicine in different racial/ethnic groups, in emergency room treatment and follow-up or scheduled office visits. In a study by McDaniel et al. (2006) a significant margin of difference in routine care of asthmatic African American children was found. This was attributed to lack of resources, lack of insurance, or lack of parental identification of when the asthmatic child needed medical assistance for care other than emergencies.

Studies that examine poverty included analysis of poverty level, related to access to hospitals, or healthcare generally, and level of caregivers' understanding of acute asthma exacerbation. These studies found that African American children were more likely to report to the emergency room when compared with Caucasian American children (Mc Daniels, et al., 2006).

Those children would be less likely to control their disease with outpatient therapy or maintenance drugs, other than those used and prescribed during their emergency visits (McDaniel et al, 2006). Hospitals serving inner city populations and those with crowding have a decreased time of administration of asthma medications, in relation to their average wait times (Tsai, et al., 2009). Urban hospitals evaluated in Tsai et al.'s 2009 study of adults found that age and sex had a factor in receiving systemic corticosteroids. Stanton and Dougherty reviewed data collected by the Asthma Care Quality Assessment (ACQA) Study and noted a "very high rate" (73%) of children enrolled in the Medicaid managed care population reported underuse of controller therapy.

Historically, asthma has been documented as more prevalent in childhood boys, when compared to childhood girls; however, equal prevalence has been reported in girls and boys in very young children. It is important to note, however, that the reliability of the diagnoses of asthma in the "very young child" is not clear. Low birth weight has also been determined a risk factor for asthma, as well as maternal characteristics, including Basal Metabolic Index, smoking and self reported asthma. Debate continues as to the relationship between socio economic status, low birth weight, maternal health and asthma prevalence (Mc Daniel et al., 2006).

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations.

American Academy of Pediatrics (2011). *Pediatric Clinical Practice Guidelines and Policies: A Compendium of Evidence-based Research for Pediatric Practice*, 11th Edition. American Academy of Pediatrics, Elk Grove Village, IL.

Center for Disease Control and Prevention: Morbidity and Mortality Weekly report. Supplement/ Vol 60, Jan 14, 2011, retrieved on October 26, 2011 from: <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>.

Chin, M H., Alexander-Young, M., Burnet, D. (2009). Health Care Quality-Improvement Approaches to Reducing Child Health Disparities. *Pediatrics*;124:S224-S236.

Elster, A., Jarosik, J., VanGeest J., Fleming M. (2003). Racial and Ethnic Disparities in Health Care for Adolescents, A Systematic Review of the Literature. *Arch Pediatrics Adolescent Medicine*; 157:867-874. Retrieved on September 27, 2011 from <http://archpedi.ama-assn.org/cgi/content/full/157/9/867>

Gottlieb, D J., O'Connor, G T., Beiser, A S.(1995). Poverty, Race, and Medication Use Are Correlates of Asthma Rates, A Small Area Analysis in Boston. CHEST Vol 108 no. 1: 28-35.

McDaniel, M., Paxson, C., and Waldfogel, J. (2006). Racial Disparities in Childhood Asthma in the United States: Evidence From the National Health Interview Survey, 1997-2003. Pediatrics 2006;117; e868.

Moorman, J E., Zahran, H., Truman, B I., Molla M T., (2011). Current Asthma Prevalence-United States, 2006-2008. Morbidity and Mortality Weekly Report January 14, 2011.

Smith, L A., Hatcher-Ross, J L., Wertheimer, R., Kahn, R S.(2005). Rethinking Race/Ethnicity, Income, and Childhood Asthma: Racial/Ethnic Disparities Concentrated Among the Very Poor. Public Health Reports; Mar-April, Vol 120, 109-115.

Stanton, M.W., and Dougherty, D. (2005). Chronic Care for Low Income Children with Asthma: Strategies for Improvement. Research in Action. Agency for Healthcare Research and Quality, Advancing Excellence in Health Care, Issue 18.

Tsai, C., Rowe, B.H., Sullivan A.F., Camargo, C.A. (2009). Factors associated with delayed use or nonuse of systemic corticosteroids in emergency department patients with acute asthma. Annals Allergy Asthma Immunology 2009;103:318-324.

1c. High Priority (previously referred to as High Impact)

The measure addresses:

- a specific national health goal/priority identified by DHHS or the National Priorities Partnership convened by NQF; OR
- a demonstrated high-priority (high-impact) aspect of healthcare (e.g., affects large numbers of patients and/or has a substantial impact for a smaller population; leading cause of morbidity/mortality; high resource use (current and/or future); severity of illness; and severity of patient/societal consequences of poor quality).

1c.1. Demonstrated high priority aspect of healthcare

Affects large numbers, A leading cause of morbidity/mortality

1c.2. If Other:

1c.3. Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare.

List citations in 1c.4.

According to the 2006-2008 data from the Center for Disease Control (CDC), 9.3% of the US population is composed of children suffering from asthma (CDC Health Disparities and Inequalities Report, 2011). This number has increased from 2001-2003 statistics which reported 8.5% of current asthma prevalence in the US (www.cdc.gov).

Consequently, the US healthcare system is greatly impacted by the demand to service this growing population (Brown, et al, 2004). Guideline recommendations for therapies such as systematic corticosteroid use in inpatient asthma maintenance programs will relieve the burden of care pushed off to ambulatory care programs. Additionally multiple studies noted an increase in expenses, as well as an annual incidence of hospital admissions for asthmatic children. Overall rates of hospital admission were last noted in 2004 to be 27 admissions per 10,000 children for a total of 198,000 hospitalizations (Akinbami, 2006, and Mellon and Parasuraman, 2004). Appropriate care upon initial hospitalization has been shown to decrease recurring admission. This rate has decreased over time, when asthma incidence is still rising, however, Akinbami (2006) notes this represents the more severe exacerbations that require hospitalized care, when compared with past years' rates.

Asthma is the most common chronic disease in children and a major cause of morbidity and increased health care expenditures nationally (Adams, et al., 2001). Asthma admissions account for 3% of all childhood hospitalizations (Akinbami, 2006). Chronic asthma in children can account for an annual loss of more than 14 million school days per year, according to the Asthma and Allergy Foundation, and has also been known to create more childhood hospitalizations than any other childhood disease in this decade (Asthma Facts and Figures). Less effective treatment modalities of chronic asthmatic children has affected the already overwhelmed healthcare system in the US.

Although there are means to prevent attacks or exacerbations among children with asthma, unfortunately, the majority of children with asthma do not have the disease under control and still suffer from acute asthma attacks, or exacerbations of asthma (www.cdc.gov/nchs/products/pub/pub, 2006). Use of systematic corticosteroids has been common practice since the early 1900's

when the first discussion of oral steroid use was published in the JAMA (Solis-Cohen, 1900). Schuh , S., et al (2000) reviewed data showed superior efficacy with systemic corticosteroids in their research study when compared to inhaled steroid therapy. Today, there are multiple guidelines that support the use of steroids in asthma therapy for children and adults. The National Asthma Education and prevention program 1997 Guideline Expert Panel Report (2002 updated) still recommends the use of anti-inflammatory medication for persistent asthma symptoms.

However, the frequency of use, and the urgency of use, still remains a problem today. Parent and child education in respect to the purpose of controller medication or steroid therapy is still lacking in the healthcare field (Stanton and Dougherty, 2005). The Cochrane Collaboration has conducted a meta analysis summarizing 12 randomized trials that support the overwhelming evidence of improved outcomes when systemic corticosteroids are used appropriately in care of asthmatic children (Rowe et al, 2001). Guideline publication such as that mentioned above, along with The American College of Chest Physicians (ACCP), the American Academy of Pediatrics (AAP), The National Asthma Education and Prevention Program (NAEPP), and The National Heart Lung and Blood Institute (NHLBI), all recommend the use of steroid therapy to gain control of chronic asthma symptoms, and reduce severity of asthmatic attacks as quickly as possible (Castro-Rodriguez, 2009).

As noted in President Obama's Health Plan and Community Based Prevention statement, multiple supportive articles and randomized control trials indicate that inadequate control remains a healthcare problem today (Goodman, A., 2009). Inadequate control comprises: asthma symptom days, use of asthma medications, school days missed, and misuse of health services (Lozano et al., 2003).

1c.4. Citations for data demonstrating high priority provided in 1a.3

American College of Chest Physicians (ACCP), 10th Annual ACCP Community Asthma and COPD Coalitions Symposium: A Physician's Perspective. Retrieved on November 28, 2011 from: http://www.chestnet.org/accp/perspective/10th_Asthma

Asthma Facts and Figures. Retrieved on November 28, 2011 from http://www.aafa.org/display.cfm?id=9&sub=42#_ftn20.

Akinbami, L, J. (2006). Advanced Data from Vital and Health Statistics: The State of Childhood Asthma, United States 1980-2005. Us Department of Health and Human Services, Center for disease control and prevention National Center for Health Statistics; No. 381, December 12, 2006.

Boluyt, N, Van der Lee, J. H., Moyer, V. A., Brand, P. L., and Offringa, M. (2007). State of the Evidence on Acute Asthma Management in Children: A Critical Appraisal of Systematic Reviews. *Pediatrics* 120; p1334-1343.

Brown, R., Bratton, S.L., Cabana, M.D., Kaciroti, N., and Clark, N. (2004). Physician Asthma Education Program Improves Outcomes for Children of Low-Income Families. *CHEST*; 126;2;369-374.

Castro-Rodriguez, J.A., and Rodrigo, G. (2009). Efficacy of Inhaled Corticosteroids in Infants and Preschools with Recurrent Wheezing and Asthma: A Systematic Review with Metal-analysis. *Pediatrics*, Vol 123, No. 3 Retrieved on November 29, 2011, from <http://www.pediatrics.aapublications.org>.

Center for Disease Control and Prevention: Morbidity and Mortality Weekly report. Supplement/ Vol 60, Jan 14, 2011, retrieved on October 26, 2011 from: <http://www.cdc.gov/mmwr/pdf/other/su6001.pdf>.

Chang, A., Clark, R., Sloots, T., Stone, D., Petsky, H., Thearle, D., Champion, A., Wheeler, C., Acworth, J.(2008). A 5 day versus 3 day course of oral corticosteroids for children with asthma exacerbations who are not hospitalized: a randomized controlled trial. *MJA*, Vol 189, No. 6, P306-310.

Crain, E.F., Weiss, K.B., Fagan, M.J. (1995). Pediatric Asthma Care in US Emergency Departments: Current Practice in the Context of the National Institute of Health guidelines. *Arch Pediatr Adolesc Med*. 1995;149:893-901.

Fuhlbrigge, A.L., Adams, R.J., Guilbert, T.W. Grant, E., Lozano, P., Janson, S.L., Martinez, F., Weiss, K.B., and Weiss, S.T. (2002). The Burden of Asthma in the United States : Level and Distribution Are Dependent on Interpretation of the National Asthma Education and Prevention Program Guidelines (NAEPP). *American Journal of Respiratory and Critical Care Medicine*. Vol 166, p 1044-1049.

Goodman, A (2009). President Obama's Health Plan and Community-Based Prevention. *American Journal of Public Health*: October 2009, Vol. 99, No. 10, pp. 1736-1738.
doi: 10.2105/AJPH.2009.174714

Iqbal, S.M., Rowe, B.H., N'Diaye, T. (2008). Corticosteroid for hospitalized children with acute asthma (Review). *The Cochran Collaboration*. Retrieved from <http://www.thecochranelibrary.com>.

Kasper, W.J., and Howe, P.A. (1990). Fatal Varicella after a Single Course of Corticosteroids. *Pediatric Infectious Disease* 1990, vol 9, p 729-732.

Lozano, P., Finkelstein, J.A., Hecht, J., Shulruff, R., Weiss, K.A. (2003). Asthma Medication Use and Disease Burden in Children in a Primary Care Population. *Arch Pediatric Adolescent Medicine*. Vol 157, p81-87.

McCormic, M.C., Kass, B., Elixhauser, A., Thompson, J., and Simpson, L. (2000). Annual Report on Access to and Utilization of Health Care for Children and Youth in the United States- 1999. *Pediatrics*, 105:1, 219-230.

Mellon, M., and Parasuraman, B. (2004). Pediatric Asthma: Improving Management to Reduce Cost of Care. *Journal of Managed Care Pharmacy*; vol 10, No.2 p130-140.

National Center for Health Statistics, Center for Disease Control and Prevention, Asthma Prevalence, Health Care Use and Mortality, 2006-2008. Retrieved on October 27, 2011 from: <http://www.cdc.gov/nchs/products/pub/pubd>, Accessed October 27, 2011.

National Heart Lung and Blood Institute (NHLBI). Guidelines for the Diagnosis and Management of Asthma (EPR-3). Retrieved on November 29, 2011 from: <http://www.nhlbi.nih.gov/guidelines/asthma/>.

Panickar, J., Lakhanpaul, M., Lambert, P., Kenia, P., Stephenson, T., Smyth, A., and Grigg, J. (2009). Oral Prednisolone for Preschool Children with Acute Virus-Induced Wheezing. *New England Journal of Medicine* 2009; 329-338.

Rowe, B.H., Edmonds, M.L., Spooner, C.H., Diner, B., and Camargo, C.A. (2004). Corticosteroid therapy for acute asthma. Elsevier Ltd. Retrieved December 20th, 2011 from doi:10.1016/j.rmed.2003.11.016

Rowe, B.H., Spooner, C., Ducharme, F.M., Bretzlaff, J.A., Bota, G.W. (2001). Early emergency department treatment of acute asthma with systemic corticosteroids. *Cochrane Database Systemic Review*.

Rowe BH, Spooner C, Ducharme F, Bretzlaff J, Bota G. (2007). Corticosteroids for preventing relapse following acute exacerbations of asthma. *Cochrane Database of Systematic Reviews* 2007, Issue 3. Art. No.: CD000195. DOI: 10.1002/14651858.CD000195.pub2.

Rachelefsky, G. (2003). Treating Exacerbations of Asthma in Children: The Role of Systemic Corticosteroids. *Pediatrics* 2003; 112;382-397.

Schuh, S., Reisman, J., Alshehri, M., Dupuis, A., Corey, M., Arseneault, R., Althman, G., Tennis, O., Canny, G. (2000). A Comparison of Inhaled Fluticasone and Oral Prednisone for Children with Severe Acute Asthma. *New England Journal of Medicine*; vol 343 No. 10 p 689-694.

Silber, J H., Rosenbaum, P R., Even-Shosh, O., Shabbout M., Zhang, X., Bradlow E T., and Marsh, R R. (2003). Length of Stay, Conditional Length of Stay, and Prolonged Stay in Pediatric Asthma. *Health Services Research*, 38: 3, 867-886.

Smith, A.D., Cowan, J.O., Brassett, K.P., Herbison, P., Taylor, R. (2005). Use of exhaled nitric oxide measurements to guide treatment in chronic asthma. *The New England Journal of Medicine*, Vol 352, No. 21, p2163-2173.

Solis-Cohen, S (1900). The use of adrenal substance in the treatment of asthma. *JAMA*.34:1164.

Stanton, M.W., and Dougherty, D. (2005). Chronic Care for Low Income Children with Asthma: Strategies for Improvement. *Research in Action*. Agency for Healthcare Research and Quality, Advancing Excellence in Health Care, Issue 18.

Tsai, C., Rowe, B.H., Sullivan A.F., Camargo, C.A. (2009). Factors associated with delayed use or nonuse of systemic corticosteroids in emergency department patients with acute asthma. *Annals Allergy Asthma Immunology* 2009;103:318-324.

1c.5. If a PRO-PM (e.g. HRQoL/functional status, symptom/burden, experience with care, health-related behaviors), provide evidence that the target population values the measured PRO and finds it meaningful. (Describe how and from whom their input was obtained.)

2. Reliability and Validity—Scientific Acceptability of Measure Properties

Extent to which the measure, as specified, produces consistent (reliable) and credible (valid) results about the quality of care when implemented. **Measures must be judged to meet the subcriteria for both reliability and validity to pass this criterion and be evaluated against the remaining criteria.**

2a.1. Specifications The measure is well defined and precisely specified so it can be implemented consistently within and across organizations and allows for comparability. eMeasures should be specified in the Health Quality Measures Format (HQMF) and the Quality Data Model (QDM).

De.5. Subject/Topic Area (check all the areas that apply):

Respiratory : Asthma

De.6. Non-Condition Specific (check all the areas that apply):

Safety : Medication

S.1. Measure-specific Web Page (Provide a URL link to a web page specific for this measure that contains current detailed specifications including code lists, risk model details, and supplemental materials. Do not enter a URL linking to a home page or to general information.)

http://www.jointcommission.org/specifications_manual_for_national_hospital_inpatient_quality_measures/

S.2a. If this is an eMeasure, HQMF specifications must be attached. Attach the zipped output from the eMeasure authoring tool (MAT) - if the MAT was not used, contact staff. (Use the specification fields in this online form for the plain-language description of the specifications)

Attachment:

S.2b. Data Dictionary, Code Table, or Value Sets (and risk model codes and coefficients when applicable) must be attached. (Excel or csv file in the suggested format preferred - if not, contact staff)

No data dictionary Attachment:

S.3. For endorsement maintenance, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.

S.4. Numerator Statement (Brief, narrative description of the measure focus or what is being measured about the target population, i.e., cases from the target population with the target process, condition, event, or outcome)

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm.

Pediatric asthma inpatients who received systemic corticosteroids during hospitalization.

S.5. Time Period for Data (What is the time period in which data will be aggregated for the measure, e.g., 12 mo, 3 years, look back to August for flu vaccination? Note if there are different time periods for the numerator and denominator.)

Episode of care

S.6. Numerator Details (All information required to identify and calculate the cases from the target population with the target process, condition, event, or outcome such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

IF an OUTCOME MEASURE, describe how the observed outcome is identified/counted. Calculation of the risk-adjusted outcome

should be described in the calculation algorithm.

One data element is used to calculate the numerator:

Systemic Corticosteroids Administered. This data element is defined as: Documentation that the patient received oral, IM, or intravenous (systemic) corticosteroids for asthma exacerbation during this inpatient hospitalization. Inpatient hospitalization includes the time from arrival to the emergency department (ED) or observation area until discharge from the inpatient setting.

S.7. Denominator Statement (Brief, narrative description of the target population being measured)

Pediatric asthma inpatients (age 2 years through 17 years) who were discharged with a principal diagnosis of asthma.

S.8. Target Population Category (Check all the populations for which the measure is specified and tested if any):

Children

S.9. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

Six data elements used to calculate the denominator:

- Admission Date

The month, day, and year of admission to acute inpatient care.

- Birthdate

The month, day, and year the patient was born.

- Clinical Trial

Documentation that during this hospital stay the patient was enrolled in a clinical trial in which patients with the same condition as the measure set were being studied.

- Reason for Not Administering Systemic Corticosteroids

Reasons for not administering Systemic Corticosteroids during this hospitalization:

- o Allergy to Systemic Corticosteroids

- o Other reasons documented by physician/APN/PA or pharmacist

- Discharge Date

The month, day, and year the patient was discharged from acute care, left against medical advice, or expired during this stay.

- ICD-9-CM Principal Diagnosis Code for asthma as defined in Appendix A. Table 6.1 below

Populations: Discharges with:

Table 6.1 Asthma

Code Shortened Description

493.00 EXTRINSIC ASTHMA NOS

493.01 EXT ASTHMA W STATUS ASTH

493.02 EXT ASTHMA W(ACUTE) EXAC

493.10 INTRINSIC ASTHMA NOS

493.11 INT ASTHMA W STATUS ASTH

493.12 INT ASTHMA W (AC) EXAC

493.81 EXERCISE IND BRONCHOSPASM

493.82 COUGH VARIANT ASTHMA

493.90 ASTHMA NOS

493.91 ASTHMA W STATUS ASTHMAT

493.92 ASTHMA NOS W (AC) EXAC

S.10. Denominator Exclusions (Brief narrative description of exclusions from the target population)

Excluded Populations:

- Patients with an age less than 2 years or 18 years or greater

- Patients who have a Length of Stay greater than 120 days

- Patients enrolled in clinical trials

- Patients with a documented Reason for Not Administering Systemic Corticosteroids

S.11. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format at S.2b)

- The patient age in years is equal to the Admission Date minus the Birthdate. The month and day portion of the admission date and birthdate are used to yield the most accurate age.
- Length of stay (LOS) in days is equal to the Discharge Date minus the Admission Date. If the LOS is greater than 120 days the patient is excluded.
- Patients are excluded if “Yes” is selected for Clinical Trial.
- Reason for Not Administering Systemic Corticosteroids: Acceptable reasons include allergy to systemic corticosteroids, oral, IM, or intravenous (systemic) corticosteroids were administered to the patient within 24 hours prior to arrival AND patient was not a candidate to receive an additional dose during this hospitalization, or other reasons documented by physician/APN/PA or pharmacist

S.12. Stratification Details/Variables (All information required to stratify the measure results including the stratification variables, definitions, specific data collection items/responses, code/value sets – Note: lists of individual codes with descriptors that exceed 1 page should be provided in an Excel or csv file in required format with at S.2b)

This measure is stratified by age as noted in the following table:

CAC-2a Systemic Corticosteroids for Inpatient Asthma (age 2 years through 17 years) - Overall Rate

CAC-2b Systemic Corticosteroids for Inpatient Asthma (age 2 years through 4 years)

CAC-2c Systemic Corticosteroids for Inpatient Asthma (age 5 years through 12 years)

CAC-2d Systemic Corticosteroids for Inpatient Asthma (age 13 years through 17 years)

S.13. Risk Adjustment Type (Select type. Provide specifications for risk stratification in S.12 and for statistical model in S.14-15)

No risk adjustment or risk stratification

If other:

S.14. Identify the statistical risk model method and variables (Name the statistical method - e.g., logistic regression and list all the risk factor variables. Note - risk model development and testing should be addressed with measure testing under Scientific Acceptability)

None

S.15. Detailed risk model specifications (must be in attached data dictionary/code list Excel or csv file. Also indicate if available at measure-specific URL identified in S.1.)

Note: Risk model details (including coefficients, equations, codes with descriptors, definitions), should be provided on a separate worksheet in the suggested format in the Excel or csv file with data dictionary/code lists at S.2b.

S.15a. Detailed risk model specifications (if not provided in excel or csv file at S.2b)

S.16. Type of score:

If other:

S.17. Interpretation of Score (Classifies interpretation of score according to whether better quality is associated with a higher score, a lower score, a score falling within a defined interval, or a passing score)

S.18. Calculation Algorithm/Measure Logic (Describe the calculation of the measure score as an ordered sequence of steps including identifying the target population; exclusions; cases meeting the target process, condition, event, or outcome; aggregating data; risk adjustment; etc.)

1. Start processing. Run cases that are included in the CAC Initial Patient Population and pass the edits defined in the Transmission Data Processing Flow: Clinical through this measure.

2. Check Clinical Trial

- a. If Clinical Trial is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- b. If Clinical Trial equals Yes, the case will proceed to a Measure Category Assignment of B and will not be in the measure population. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- c. If Clinical Trial equals No, continue processing and proceed to Systemic Corticosteroids Administered.

3. Check Systemic Corticosteroids Administered

- a. If Systemic Corticosteroids Administered is missing, the case will proceed to a Measure Category Assignment of X for Overall Rate (CAC-2a) and will be rejected. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- b. If Systemic Corticosteroids Administered equals Yes, the case will proceed to a Measure Category Assignment of E and will be in the Numerator Population. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- c. If Systemic Corticosteroids Administered equals No, continue processing and proceed to Reason for Not Administering Systemic Corticosteroids.

4. Check Reason for Not Administering Systemic Corticosteroids

- a. If Reason for Not Administering Systemic Corticosteroids is missing, the case will proceed to a Measure Category Assignment of X for Overall Rate (CAC-2a) and will be rejected. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- b. If Reason for Not Administering Systemic Corticosteroids equals Yes, the case will proceed to a Measure Category Assignment of B for Overall Rate (CAC-2a) and will not be in the measure population. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).
- c. If Reason for Not Administering Systemic Corticosteroids equals No, the case will proceed to a Measure Category Assignment of D for Overall Rate (CAC-2a) and will be in the Measure Population. Proceed to step 5 and check the Stratified Measures for Overall Rate (CAC-2a).

5. Continue processing for the Stratified Measures. Note: Initialize the Measure Category Assignment for all Strata Measure to equal 'B.' Do not change the Measure Category Assignment that was already calculated for the overall rate CAC-2a). The rest of the algorithm will reset the appropriate Measure Category Assignment to be equal to the overall rate's (CAC-2a) Measure Category Assignment.

6. Check Overall Rate Category Assignment

- a. If the Overall Rate Category Assignment is equal to B or X, keep Measure Category Assignment for the strata measures equal B, not in the Measure Population. Stop processing.
- b. If the Overall Rate Category Assignment is equal to D or E, continue processing and check the Patient Age. Note: The Patient Age is calculated from Admission Date minus Birthdate as part of the ICD Population logic.

7. Check The Patient Age

- a. If the Patient Age is greater than or equal to 2 years and less than 5 years for Stratified Measure CAC-2b, set the Measure Category Assignment for measure CAC-2b to equal the Measure Category Assignment for measure CAC-2a. Stop processing.
- b. If the Patient Age is greater than or equal to 5 years and less than 13 years for Stratified Measure CAC-2c, set the Measure Category Assignment for measure CAC-2c to equal the Measure Category Assignment for measure CAC-2a. Stop processing.
- c. If the Patient Age is greater than or equal to 13 years and less than 18 years for Stratified Measure CAC-2d, set the Measure Category Assignment for measure CAC-2d to equal the Measure Category Assignment for measure CAC-2a. Stop processing.

S.19. Calculation Algorithm/Measure Logic Diagram URL or Attachment (You also may provide a diagram of the Calculation Algorithm/Measure Logic described above at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.20. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF a PRO-PM, identify whether (and how) proxy responses are allowed.

Hospitals that choose to sample have the option of sampling quarterly or sampling monthly. A hospital may choose to use a larger

sample size than is required. Hospitals whose Initial Patient Population size is less than the minimum number of cases per quarter/month for the stratum cannot sample that stratum.

Regardless of the option used, hospital samples must be monitored to ensure that sampling procedures consistently produce statistically valid and useful data. Due to exclusions, hospitals selecting sample cases MUST submit AT LEAST the minimum required sample size.

Quarterly Sampling

Hospitals selecting sample cases for this measure must ensure that each individual stratum's population and quarterly sample size meets the following conditions:

Select within each of the three individual measure strata. Cases are placed into the appropriate stratum based upon the patient's age.

Quarterly Sample Size

Based on Initial Patient Population Size for the CAC Measure Set
Hospital's Measure

Average Quarterly

Stratum Initial Patient Population Size

"N"

Minimum Required

Stratum Sample Size

"n"

= 971

195

196-970

20% of Initial Patient Population size

39-195

39

< 39

No sampling; 100% Initial Patient Population required

Monthly Sampling

Hospitals selecting sample cases for this set must ensure that each individual stratum population and monthly sample size meets the following conditions:

Select within each of the three individual measure strata. Cases are placed into the appropriate stratum based upon the patient's age.

Monthly Sample Size

Based on Initial Patient Population Size for the CAC Measure Set

Average Monthly

Stratum Initial Patient Population Size

"N"

Minimum Required

Stratum Sample Size

"n"

= 321

65

66-320

20% of Initial Patient Population size

13-65

13

< 13

No sampling; 100% Initial Patient Population required

S.21. Survey/Patient-reported data (If measure is based on a survey, provide instructions for conducting the survey and guidance on minimum response rate.)

IF a PRO-PM, specify calculation of response rates to be reported with performance measure results.

S.22. Missing data (specify how missing data are handled, e.g., imputation, delete case.)

Required for Composites and PRO-PMs.

S.23. Data Source (Check *ONLY* the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.24.

Electronic Health Records, Other, Paper Medical Records

S.24. Data Source or Collection Instrument (Identify the specific data source/data collection instrument e.g. name of database, clinical registry, collection instrument, etc.)

If a PRO-PM, identify the specific PROM(s); and standard methods, modes, and languages of administration.

Each data element in the data dictionary includes suggested data sources. The data are collected using contracted Performance Measurement Systems (vendors) that develop data collection tools based on the measure specifications. The tools are verified and tested by Joint Commission staff to confirm the accuracy and conformance of the data collection tool with the measure specifications. The vendor may not offer the measure set to hospitals until verification has been passed.

S.25. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

S.26. Level of Analysis (Check *ONLY* the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility, Other

S.27. Care Setting (Check *ONLY* the settings for which the measure is SPECIFIED AND TESTED)

Inpatient/Hospital

If other:

S.28. COMPOSITE Performance Measure - Additional Specifications (Use this section as needed for aggregation and weighting rules, or calculation of individual performance measures if not individually endorsed.)

2a. Reliability – See attached Measure Testing Submission Form

2b. Validity – See attached Measure Testing Submission Form

0144_MeasureTesting_MSF5.0_Data.doc

3. Feasibility

Extent to which the specifications including measure logic, require data that are readily available or could be captured without undue burden and can be implemented for performance measurement.

3a. Byproduct of Care Processes

For clinical measures, the required data elements are routinely generated and used during care delivery (e.g., blood pressure, lab test, diagnosis, medication order).

3a.1. Data Elements Generated as Byproduct of Care Processes.

generated by and used by healthcare personnel during the provision of care, e.g., blood pressure, lab value, medical condition, Coded by someone other than person obtaining original information (e.g., DRG, ICD-9 codes on claims), Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry), Other

If other: Data elements such as admission date or discharge date may be generated by administrative data.

3b. Electronic Sources

The required data elements are available in electronic health records or other electronic sources. If the required data are not in electronic health records or existing electronic sources, a credible, near-term path to electronic collection is specified.

3b.1. To what extent are the specified data elements available electronically in defined fields? (i.e., data elements that are needed to compute the performance measure score are in defined, computer-readable fields)

Some data elements are in defined fields in electronic sources

3b.2. If ALL the data elements needed to compute the performance measure score are not from electronic sources, specify a credible, near-term path to electronic capture, OR provide a rationale for using other than electronic sources.
The Joint Commission is in the process of preparing for conversion to eMeasure specifications beginning in the 4th quarter 2011 for the CAC measure set.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment in an attached file or make available at a measure-specific URL.

Attachment:

3c. Data Collection Strategy

Demonstration that the data collection strategy (e.g., source, timing, frequency, sampling, patient confidentiality, costs associated with fees/licensing of proprietary measures) can be implemented (e.g., already in operational use, or testing demonstrates that it is ready to put into operational use). For eMeasures, a feasibility assessment addresses the data elements and measure logic and demonstrates the eMeasure can be implemented or feasibility concerns can be adequately addressed.

3c.1. Describe what you have learned/modified as a result of testing and/or operational use of the measure regarding data collection, availability of data, missing data, timing and frequency of data collection, sampling, patient confidentiality, time and cost of data collection, other feasibility/implementation issues.

IF a PRO-PM, consider implications for both individuals providing PROM data (patients, service recipients, respondents) and those whose performance is being measured.

Hospitals using this performance measure generally collect measure data via manual review of the paper medical record. Collected data are submitted to The Joint Commission on a quarterly basis, by way of contracted performance measurement system vendors, as described previously. Specifications for this measure are freely available to anyone who wishes to use the measure. Feedback from hospitals using this measure indicates that required data elements are generally available in the medical record, and measure specifications are robust and easy to understand. As described above, as feedback from measure users has indicated the need for clarification or revision of measure specifications, this has taken place.

3c.2. Describe any fees, licensing, or other requirements to use any aspect of the measure as specified (e.g., value/code set, risk model, programming code, algorithm).

4. Usability and Use

Extent to which potential audiences (e.g., consumers, purchasers, providers, policy makers) are using or could use performance results for both accountability and performance improvement to achieve the goal of high-quality, efficient healthcare for individuals or populations.

4a. Accountability and Transparency

Performance results are used in at least one accountability application within three years after initial endorsement and are publicly reported within six years after initial endorsement (or the data on performance results are available). If not in use at the time of initial endorsement, then a credible plan for implementation within the specified timeframes is provided.

4.1. Current and Planned Use

NQF-endorsed measures are expected to be used in at least one accountability application within 3 years and publicly reported within 6 years of initial endorsement in addition to performance improvement.

Planned	Current Use (for current use provide URL)
Public Reporting	
Regulatory and Accreditation Programs	
Quality Improvement (Internal to the specific organization)	

4a.1. For each CURRENT use, checked above, provide:

- Name of program and sponsor
- Purpose
- Geographic area and number and percentage of accountable entities and patients included

4a.2. If not currently publicly reported OR used in at least one other accountability application (e.g., payment program, certification, licensing) what are the reasons? (e.g., Do policies or actions of the developer/steward or accountable entities restrict access to performance results or impede implementation?)

4a.3. If not currently publicly reported OR used in at least one other accountability application, provide a credible plan for implementation within the expected timeframes -- any accountability application within 3 years and publicly reported within 6 years of initial endorsement. (Credible plan includes the specific program, purpose, intended audience, and timeline for implementing the measure within the specified timeframes. A plan for accountability applications addresses mechanisms for data aggregation and reporting.)

4b. Improvement

Progress toward achieving the goal of high-quality, efficient healthcare for individuals or populations is demonstrated. If not in use for performance improvement at the time of initial endorsement, then a credible rationale describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4b.1. Progress on Improvement. (Not required for initial endorsement unless available.)

Performance results on this measure (current and over time) should be provided in 1b.2 and 1b.4. Discuss:

- Progress (trends in performance results, number and percentage of people receiving high-quality healthcare)
- Geographic area and number and percentage of accountable entities and patients included

4b.2. If no improvement was demonstrated, what are the reasons? If not in use for performance improvement at the time of initial endorsement, provide a credible rationale that describes how the performance results could be used to further the goal of high-quality, efficient healthcare for individuals or populations.

4c. Unintended Consequences

The benefits of the performance measure in facilitating progress toward achieving high-quality, efficient healthcare for individuals or populations outweigh evidence of unintended negative consequences to individuals or populations (if such evidence exists).

4c.1. Were any unintended negative consequences to individuals or populations identified during testing; OR has evidence of unintended negative consequences to individuals or populations been reported since implementation? If so, identify the negative unintended consequences and describe how benefits outweigh them or actions taken to mitigate them.

When the Children's Asthma Care (CAC) measures were first published in the aligned Specifications Manual for National Hospital Quality Measures, minor updates were made to the measure information forms and data elements in the Data Dictionary to provide that the verbiage for CAC was consistent with all of the other aligned measure sets and concordant with current General Abstraction Guidelines in the specifications manual.

Based upon input from the measure users, the Measure Information Form was updated. The Numerator-Included Populations was restated to clarify the time frame for administration of systemic corticosteroids.

The former data element Contraindications to Systemic Corticosteroids was changed to: Reasons for not Administering Systemic Corticosteroids. This was done as part of the greater initiative to address "contraindication" data elements across other measure sets in the aligned Specifications Manual for National Hospital Quality Measures. As part of this process, the updated data element was revised to provide additional clarity for data abstraction based upon input from the measure users.

It was reported that a number of cases were failing this measure because there were circumstances in which a patient might receive a systemic corticosteroid prior to arrival to the hospital. If the subsequent inpatient hospitalization was of short duration the

patient might not require the drug within the time frame of the hospitalization. In order to prevent cases from failing because the drug had been appropriately held during the hospitalization and to prevent the potential for an unintended consequence of a patient receiving the drug more than needed, the following bullet was added to the definition of the data element Reasons for not Administering Systemic Corticosteroids: Oral or intravenous (systemic) corticosteroids were administered to the patient within 24 hours prior to arrival AND patient was not a candidate to receive an additional dose during this hospitalization.

Systemic Corticosteroids Administered: This data element originally specified oral and IV systemic corticosteroids. Measure users questioned why this did not include the IM route. The data element was updated to include the IM route in order to prevent cases from failing if IM systemic corticosteroids were administered.

The medication table for systemic corticosteroids is reviewed with every specifications manual publication. The table is updated via consultation with a PharmD member of the asthma advisory panel to insure that the most current list of systemic corticosteroids available is provided at the time of publication.

Selected References were updated to reflect current guidelines.

To the best of our knowledge, there have been no reports of unintended consequences.

5. Comparison to Related or Competing Measures

If a measure meets the above criteria and there are endorsed or new related measures (either the same measure focus or the same target population) or competing measures (both the same measure focus and the same target population), the measures are compared to address harmonization and/or selection of the best measure.

5. Relation to Other NQF-endorsed Measures

Are there related measures (conceptually, either same measure focus or target population) or competing measures (conceptually both the same measure focus and same target population)? If yes, list the NQF # and title of all related and/or competing measures.
Yes

5.1a. List of related or competing measures (selected from NQF-endorsed measures)

0001 : Asthma assessment

0025 : Management plan for people with asthma

0036 : Use of Appropriate Medications for People With Asthma (ASM)

0047 : Asthma: Pharmacologic Therapy for Persistent Asthma

0283 : Asthma in Younger Adults Admission Rate (PQI 15)

0548 : Suboptimal Asthma Control (SAC) and Absence of Controller Therapy (ACT)

5.1b. If related or competing measures are not NQF endorsed please indicate measure title and steward.

5a. Harmonization

The measure specifications are harmonized with related measures;

OR

The differences in specifications are justified

5a.1. If this measure conceptually addresses EITHER the same measure focus OR the same target population as NQF-endorsed measure(s):

Are the measure specifications completely harmonized?

No

5a.2. If the measure specifications are not completely harmonized, identify the differences, rationale, and impact on interpretability and data collection burden.

The Joint Commission measures in the Children's Asthma Care measure set specifically focus on acute asthma care for the inpatient pediatric population, targeting children ages 2 – 17. None of the above measures apply to the inpatient pediatric population, the above measures focus on ambulatory care. The population of the above measures is variable, ranging in the following targeted age groups: 5 – 40, 5 - 56, 18 and older, 5 - 50.

5b. Competing Measures

The measure is superior to competing measures (e.g., is a more valid or efficient way to measure);

OR

Multiple measures are justified.

5b.1. If this measure conceptually addresses both the same measure focus and the same target population as NQF-endorsed measure(s):

Describe why this measure is superior to competing measures (e.g., a more valid or efficient way to measure quality); OR provide a rationale for the additive value of endorsing an additional measure. (Provide analyses when possible.)

None

Appendix

A.1 Supplemental materials may be provided in an appendix. All supplemental materials (such as data collection instrument or methodology reports) should be organized in one file with a table of contents or bookmarks. If material pertains to a specific submission form number, that should be indicated. Requested information should be provided in the submission form and required attachments. There is no guarantee that supplemental materials will be reviewed.

Attachment:

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): [The Joint Commission](#)

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Co.3 Measure Developer if different from Measure Steward: [The Joint Commission](#)

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Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.

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Measure Developer/Steward Updates and Ongoing Maintenance

Ad.2 Year the measure was first released: 2007

Ad.3 Month and Year of most recent revision: 01

Ad.4 What is your frequency for review/update of this measure? Biannual

Ad.5 When is the next scheduled review/update for this measure? 07, 2012

Ad.6 Copyright statement: The Specifications Manual for National Hospital Inpatient Quality Measures Version 4.0, January, 2012 is the collaborative work of the Centers for Medicare & Medicaid Services and The Joint Commission. The Specifications Manual is periodically updated by the Centers for Medicare & Medicaid Services and The Joint Commission. Users of the Specifications Manual for National Hospital Inpatient Quality Measures must update their software and associated documentation based on the published manual production timelines.

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performance measures systems; are required to update their software and associated documentation based on the published manual production timelines.

Ad.7 Disclaimers:

Ad.8 Additional Information/Comments: The Month and Year of the Most Recent Revision is Jan 2012. ICD 9- ICD10 Crosswalk included via email.