NATIONAL QUALITY FORUM

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 #: 0496
De.2. **Measure Title:** Median Time from ED Arrival to ED Departure for Discharged ED Patients
Co.1.1. **Measure Steward:** Centers for Medicare and Medicaid Services
De.3. **Brief Description of Measure:** Median time from emergency department arrival to time of departure from the emergency room for patients discharged from the emergency department
1b.1. **Developer Rationale:** Reducing the time patients remain in the emergency department (ED) can improve access to treatment and increase quality of care. Reducing this time potentially improves access to care specific to the patient condition and increases the capability to provide additional treatment. In recent times, EDs have experienced significant overcrowding. Although once only a problem in large, urban, teaching hospitals, the phenomenon has spread to other suburban and rural healthcare organizations. According to a 2002 national U.S. survey, more than 90 percent of large hospitals report EDs operating "at" or "over" capacity. Overcrowding and heavy emergency resource demand have led to a number of problems, including ambulance refusals, prolonged patient waiting times, increased suffering for those who wait, rushed and unpleasant treatment environments, and potentially poor patient outcomes. Approximately one third of hospitals in the U.S. report increases in ambulance diversion in a given year, whereas up to half report crowded conditions in the ED. In a recent national survey, 40 percent of hospital leaders viewed ED crowding as a symptom of workforce shortages. ED crowding may result in delays in the administration of medication such as antibiotics for pneumonia and has been associated with perceptions of compromised emergency care. For patients with non-ST-segment-elevation myocardial infarction, long ED stays were associated with decreased use of guideline-recommended therapies and a higher risk of recurrent myocardial infarction. When EDs are overwhelmed, their ability to respond to community emergencies and disasters may be compromised.

S.4. **Numerator Statement:** Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.
S.7. **Denominator Statement:** Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.
S.10. **Denominator Exclusions:** Patients who expired in the emergency department

De.1. **Measure Type:** Outcome
S.23. **Data Source:** Administrative claims
S.26. **Level of Analysis:** Facility

IF Endorsement Maintenance – Original Endorsement Date: Oct 24, 2008 **Most Recent Endorsement Date:** Oct 24, 2008

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?**

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
0496_MeasSubm_Evidence1.10.14.docx

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)*
Reducing the time patients remain in the emergency department (ED) can improve access to treatment and increase quality of care. Reducing this time potentially improves access to care specific to the patient condition and increases the capability to provide additional treatment. In recent times, EDs have experienced significant overcrowding. Although once only a problem in large, urban, teaching hospitals, the phenomenon has spread to other suburban and rural healthcare organizations. According to a 2002 national U.S. survey, more than 90 percent of large hospitals report EDs operating "at" or "over" capacity. Overcrowding and heavy emergency resource demand have led to a number of problems, including ambulance refusals, prolonged patient waiting times, increased suffering for those who wait, rushed and unpleasant treatment environments, and potentially poor patient outcomes. Approximately one third of hospitals in the U.S. report increases in ambulance diversion in a given year, whereas up to half report crowded conditions in the ED. In a recent national survey, 40 percent of hospital leaders viewed ED crowding as a symptom of workforce shortages. ED crowding may result in delays in the administration of medication such as antibiotics for pneumonia and has been associated with perceptions of compromised emergency care. For patients with non-ST-segment-elevation myocardial infarction, long ED stays were associated with decreased use of guideline-recommended therapies and a higher risk of recurrent myocardial infarction. When EDs are overwhelmed, their ability to respond to community emergencies and disasters may be compromised.

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.*
1Q2012 top tenth percentile:93 1Q2012 National median time: 139
2Q2012 top tenth percentile:90 2Q2012 National median time: 134
3Q2012 top tenth percentile:91 3Q2012 National median time: 135
4Q2012 top tenth percentile:92 4Q2012 National median time: 135
1Q2013 top tenth percentile:93 1Q2013 National median time: 137
Scores by decile are available as an attachment in the "Additional" section. Disparities data and distribution is also available in attachment."

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.**

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.*
See testing report for data on age, gender and race. Also document attached in Additional Section.

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.**

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, High resource use, Patient/societal consequences of poor quality
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.**
ED volume increased by 3-5% from 2011 to 2012. The acuity of patients seen in ED has increased. About 16.4% of patients seen in the ED are admitted to inpatient status. Over 68% of hospital admissions are processed through the ED.
From the CDC for 2010:
•Number of visits: 129.8 million
•Number of injury-related visits: 37.9 million
•Number of visits per 100 persons: 42.8
•Percent of visits with patient seen in fewer than 15 minutes: 25.1%
•Percent of visits resulting in hospital admission: 13.3%
•Percent of visits resulting in transfer to a different (psychiatric or other) hospital: 2.1%

Source: National Hospital Ambulatory Medical Care Survey: 2010 Emergency Department Summary Tables, tables 1, 4, 14, 24

1c.4. **Citations for data demonstrating high priority provided in 1a.3**
Emergency Department Benchmarking Alliance (EDBA) Data Guide.
(CDC) National Hospital Ambulatory Medical Care Survey: 2010 Emergency Department Summary Tables, tables 1, 4, 14, 24
- Institute of Medicine of the National Academies. Future of emergency care: Hospital-based emergency care at the breaking point. The National Academies Press 2006.
- Institute of Medicine. IOM Report: the future of emergency care in the United States health system. Acad Emer Med. 2006;13(10):1081-5.
- Wilper AP, Woolhandler S, Lasser KE, McCormick D, Cutrona SL, Bor DH, Himmelstein DU. Waits to see an emergency department physician: U.S. trends and predictors, 1997-2004. Health Aff (Millwood). 2008;27:w84-95.

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):*

De.6. **Cross Cutting Areas** *(check all the areas that apply):*
Care Coordination

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.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FSpecsManualTemplate&cid=1228773271302

S.2a. **If this is an eMeasure**, HQMF specifications must be attached. Attach the 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)
No HQMF specs **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)*
Attachment **Attachment:** AppendixA_v7_0a.pdf

S.3. **For endorsement maintenance**, please briefly describe any changes to the measure specifications since last endorsement date and explain the reasons.
The observation stratum has been removed for OP-18; observation patients will now go into the reporting group. This decision was based on TEP recommendation and CMS direction.

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.
Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.

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.)*
Facilities report this data quarterly.

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.
Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.

S.7. **Denominator Statement** *(Brief, narrative description of the target population being measured)*
Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.

S.8. **Target Population Category** *(Check all the populations for which the measure is specified and tested if any):*
Children's Health, Senior Care

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)*
Any ED Patient from the facility's emergency department

E/M Codes Emergency Department
99281 Emergency department visit, new or established patient
99282 Emergency department visit, new or established patient
99283 Emergency department visit, new or established patient
99284 Emergency department visit, new or established patient

99285 Emergency department visit, new or established patient
99291 Critical care, evaluation and management

S.10. **Denominator Exclusions** *(Brief narrative description of exclusions from the target population)*
Patients who expired in the emergency department

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)*
Discharge Code Value 6: Expired

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)*
OP-18a Median Time from ED Arrival to ED Departure for Discharged ED Patients –Overall Rate (All patients seen in the ED and discharged)

OP-18b Median Time from ED Arrival to ED Departure for Discharged ED Patients –Reporting Measure (non-psych and not transferred)

OP-18c Median Time from ED Arrival to ED Departure for Discharged ED Patients – Psychiatric/Mental Health Patients(All patients seen in the ED who have a diagnosis consistent with mental disorders)

OP-18d Median Time from ED Arrival to ED Departure for Discharged ED Patients – Transfer Patients (All patients seen in the ED who have been transferred to another acute care hospital.)

Table 1.0 E/M Codes for Emergency Department Visit
99281 Emergency department visit, new or established patient
99282 Emergency department visit, new or established patient
99283 Emergency department visit, new or established patient
99284 Emergency department visit, new or established patient
99285 Emergency department visit, new or established patient
99291 Critical care, evaluation and management

Observation Services
There was documentation the patient was placed into observation services in this facility's emergency department.

ICD-9-CM Table 7.01 Mental Health Codes

290.0 SENILE DEMENTIA UNCOMP
290.10 PRESENILE DEMENTIA
290.11 PRESENILE DELIRIUM
290.12 PRESENILE DELUSION
290.13 PRESENILE DEPRESSION
290.20 SENILE DELUSION
290.21 SENILE DEPRESSIVE
290.3 SENILE DELIRIUM
290.40 VASCULAR DEMENTIA,UNCOMP
290.41 VASC DEMENTIA W DELIRIUM
290.42 VASC DEMENTIA W DELUSION
290.43 VASC DEMENTIA W DEPRESSN
290.8 SENILE PSYCHOSIS NEC
290.9 SENILE PSYCHOT COND NOS
291.0 DELIRIUM TREMENS

291.1	ALCOHOL AMNESTIC DISORDR
291.2	ALCOHOL PERSIST DEMENTIA
291.3	ALCOH PSY DIS W HALLUCIN
291.4	PATHOLOGIC ALCOHOL INTOX
291.5	ALCOH PSYCH DIS W DELUS
291.81	ALCOHOL WITHDRAWAL
291.82	ALCOH INDUCE SLEEP DISOR
291.89	ALCOHOL MENTAL DISOR NEC
291.9	ALCOHOL MENTAL DISOR NOS
292.0	DRUG WITHDRAWAL
292.11	DRUG PSYCH DISOR W DELUS
292.12	DRUG PSY DIS W HALLUCIN
292.2	PATHOLOGIC DRUG INTOX
292.81	DRUG-INDUCED DELIRIUM
292.82	DRUG PERSISTING DEMENTIA
292.83	DRUG PERSIST AMNESTC DIS
292.84	DRUG-INDUCED MOOD DISORD
292.85	DRUG INDUCED SLEEP DISOR
292.89	DRUG MENTAL DISORDER NEC
292.9	DRUG MENTAL DISORDER NOS
293.0	DELIRIUM D/T OTHER COND
293.1	SUBACUTE DELIRIUM
293.81	PSY DIS W DELUS OTH DIS
293.82	PSY DIS W HALLUC OTH DIS
293.83	MOOD DISORDER OTHER DIS
293.84	ANXIETY DISORDER OTH DIS
293.89	TRANSIENT MENTAL DIS NEC
293.9	TRANSIENT MENTAL DIS NOS
294.0	AMNESTIC DISORD OTH DIS
294.10	DEMENTIA W/O BEHAV DIST
294.11	DEMENTIA W BEHAVIOR DIST
294.20	DEMEN NOS W/O BEHV DSTRB
294.21	DEMEN NOS W BEHAV DISTRB
294.8	MENTAL DISOR NEC OTH DIS
294.9	MENTAL DISOR NOS OTH DIS
295.00	SIMPL SCHIZOPHREN-UNSPEC
295.01	SIMPL SCHIZOPHREN-SUBCHR
295.02	SIMPLE SCHIZOPHREN-CHR
295.03	SIMP SCHIZ-SUBCHR/EXACER
295.04	SIMPL SCHIZO-CHR/EXACERB
295.05	SIMPL SCHIZOPHREN-REMISS
295.10	HEBEPHRENIA-UNSPEC
295.11	HEBEPHRENIA-SUBCHRONIC
295.12	HEBEPHRENIA-CHRONIC
295.13	HEBEPHREN-SUBCHR/EXACERB
295.14	HEBEPHRENIA-CHR/EXACERB
295.15	HEBEPHRENIA-REMISSION
295.20	CATATONIA-UNSPEC
295.21	CATATONIA-SUBCHRONIC
295.22	CATATONIA-CHRONIC
295.23	CATATONIA-SUBCHR/EXACERB
295.24	CATATONIA-CHR/EXACERB
295.25	CATATONIA-REMISSION
295.30	PARANOID SCHIZO-UNSPEC
295.31	PARANOID SCHIZO-SUBCHR

295.32 PARANOID SCHIZO-CHRONIC
295.33 PARAN SCHIZO-SUBCHR/EXAC
295.34 PARAN SCHIZO-CHR/EXACERB
295.35 PARANOID SCHIZO-REMISS
295.40 SCHIZOPHRENIFORM DIS NOS
295.41 SCHIZOPHRENIC DIS-SUBCHR
295.42 SCHIZOPHREN DIS-CHRONIC
295.43 SCHIZO DIS-SUBCHR/EXACER
295.44 SCHIZOPHR DIS-CHR/EXACER
295.45 SCHIZOPHRENIC DIS-REMISS
295.50 LATENT SCHIZOPHREN-UNSP
295.51 LAT SCHIZOPHREN-SUBCHR
295.52 LATENT SCHIZOPHREN-CHR
295.53 LAT SCHIZO-SUBCHR/EXACER
295.54 LATENT SCHIZO-CHR/EXACER
295.55 LAT SCHIZOPHREN-REMISS
295.60 SCHIZOPHR DIS RESID NOS
295.61 SCHIZOPH DIS RESID-SUBCH
295.62 SCHIZOPHR DIS RESID-CHR
295.63 SCHIZO RESID SUBCHR/EXAC
295.64 SCHIZOPH RESID-CHRO/EXAC
295.65 SCHIZOPH DIS RESID-REMIS
295.70 SCHIZOAFFECTIVE DIS NOS
295.71 SCHIZOAFFECTV DIS-SUBCHR
295.72 SCHIZOAFFECTIVE DIS-CHR
295.73 SCHIZOAFF DIS-SUBCH/EXAC
295.74 SCHIZOAFFTV DIS-CHR/EXAC
295.75 SCHIZOAFFECTVE DIS-REMIS
295.80 SCHIZOPHRENIA NEC-UNSPEC
295.81 SCHIZOPHRENIA NEC-SUBCHR
295.82 SCHIZOPHRENIA NEC-CHR
295.83 SCHIZO NEC-SUBCHR/EXACER
295.84 SCHIZO NEC-CHR/EXACERB
295.85 SCHIZOPHRENIA NEC-REMISS
295.90 SCHIZOPHRENIA NOS-UNSPEC
295.91 SCHIZOPHRENIA NOS-SUBCHR
295.92 SCHIZOPHRENIA NOS-CHR
295.93 SCHIZO NOS-SUBCHR/EXACER
295.94 SCHIZO NOS-CHR/EXACERB
295.95 SCHIZOPHRENIA NOS-REMISS
296.00 BIPOL I SINGLE MANIC NOS
296.01 BIPOL I SINGLE MANC-MILD
296.02 BIPOL I SINGLE MANIC-MOD
296.03 BIPOL I SING-SEV W/O PSY
296.04 BIPO I SIN MAN-SEV W PSY
296.05 BIPOL I SING MAN REM NOS
296.06 BIPOL I SINGLE MANIC REM
296.10 RECUR MANIC DIS-UNSPEC
296.11 RECUR MANIC DIS-MILD
296.12 RECUR MANIC DIS-MOD
296.13 RECUR MANIC DIS-SEVERE
296.14 RECUR MANIC-SEV W PSYCHO
296.15 RECUR MANIC-PART REMISS
296.16 RECUR MANIC-FULL REMISS
296.20 DEPRESS PSYCHOSIS-UNSPEC

296.21 DEPRESS PSYCHOSIS-MILD
296.22 DEPRESSIVE PSYCHOSIS-MOD
296.23 DEPRESS PSYCHOSIS-SEVERE
296.24 DEPR PSYCHOS-SEV W PSYCH
296.25 DEPR PSYCHOS-PART REMISS
296.26 DEPR PSYCHOS-FULL REMISS
296.30 RECURR DEPR PSYCHOS-UNSP
296.31 RECURR DEPR PSYCHOS-MILD
296.32 RECURR DEPR PSYCHOS-MOD
296.33 RECUR DEPR PSYCH-SEVERE
296.34 REC DEPR PSYCH-PSYCHOTIC
296.35 RECUR DEPR PSYC-PART REM
296.36 RECUR DEPR PSYC-FULL REM
296.40 BIPOL I CURRNT MANIC NOS
296.41 BIPOL I CURNT MANIC-MILD
296.42 BIPOL I CURRNT MANIC-MOD
296.43 BIPOL I MANC-SEV W/O PSY
296.44 BIPOL I MANIC-SEV W PSY
296.45 BIPOL I CUR MAN PART REM
296.46 BIPOL I CUR MAN FULL REM
296.50 BIPOL I CUR DEPRES NOS
296.51 BIPOL I CUR DEPRESS-MILD
296.52 BIPOL I CUR DEPRESS-MOD
296.53 BIPOL I CURR DEP W/O PSY
296.54 BIPOL I CURRNT DEP W PSY
296.55 BIPOL I CUR DEP REM NOS
296.56 BIPOL I CURRNT DEP REMIS
296.60 BIPOL I CURRNT MIXED NOS
296.61 BIPOL I CURRNT MIX-MILD
296.62 BIPOL I CURRNT MIXED-MOD
296.63 BIPOL I CUR MIX W/O PSY
296.64 BIPOL I CUR MIXED W PSY
296.65 BIPOL I CUR MIX-PART REM
296.66 BIPOL I CUR MIXED REMISS
296.7 BIPOLOR I CURRENT NOS
296.80 BIPOLAR DISORDER NOS
296.81 ATYPICAL MANIC DISORDER
296.82 ATYPICAL DEPRESSIVE DIS
296.89 BIPOLAR DISORDER NEC
296.90 EPISODIC MOOD DISORD NOS
296.99 EPISODIC MOOD DISORD NEC
297.0 PARANOID STATE, SIMPLE
297.1 DELUSIONAL DISORDER
297.2 PARAPHRENIA
297.3 SHARED PSYCHOTIC DISORD
297.8 PARANOID STATES NEC
297.9 PARANOID STATE NOS
298.0 REACT DEPRESS PSYCHOSIS
298.1 EXCITATIV TYPE PSYCHOSIS
298.2 REACTIVE CONFUSION
298.3 ACUTE PARANOID REACTION
298.4 PSYCHOGEN PARANOID PSYCH
298.8 REACT PSYCHOSIS NEC/NOS
298.9 PSYCHOSIS NOS
299.00 AUTISTIC DISORD-CURRENT

299.01 AUTISTIC DISORD-RESIDUAL
299.10 CHILDHD DISINTEGR-ACTIVE
299.11 CHILDHD DISINTEGR-RESID
299.80 PERVASV DEV DIS-CUR NEC
299.81 PERVASV DEV DIS-RES NEC
299.90 PERVASV DEV DIS-CUR NOS
299.91 PERVASV DEV DIS-RES NOS
300.00 ANXIETY STATE NOS
300.01 PANIC DIS W/O AGORPHOBIA
300.02 GENERALIZED ANXIETY DIS
300.09 ANXIETY STATE NEC
300.10 HYSTERIA NOS
300.11 CONVERSION DISORDER
300.12 DISSOCIATIVE AMNESIA
300.13 DISSOCIATIVE FUGUE
300.14 DISSOCIATVE IDENTITY DIS
300.15 DISSOCIATIVE REACT NOS
300.16 FACTITIOUS DIS W SYMPTOM
300.19 FACTITIOUS ILL NEC/NOS
300.20 PHOBIA NOS
300.21 AGORAPHOBIA W PANIC DIS
300.22 AGORAPHOBIA W/O PANIC
300.23 SOCIAL PHOBIA
300.29 ISOLATED/SPEC PHOBIA NEC
300.3 OBSESSIVE-COMPULSIVE DIS
300.4 DYSTHYMIC DISORDER
300.5 NEURASTHENIA
300.6 DEPERSONALIZATION DISORD
300.7 HYPOCHONDRIASIS
300.81 SOMATIZATION DISORDER
300.82 UNDIFF SOMATOFORM DISRDR
300.89 SOMATOFORM DISORDERS NEC
300.9 NONPSYCHOTIC DISORD NOS
301.0 PARANOID PERSONALITY
301.10 AFFECTIV PERSONALITY NOS
301.11 CHRONIC HYPOMANIC PERSON
301.12 CHR DEPRESSIVE PERSON
301.13 CYCLOTHYMIC DISORDER
301.20 SCHIZOID PERSONALITY NOS
301.21 INTROVERTED PERSONALITY
301.22 SCHIZOTYPAL PERSON DIS
301.3 EXPLOSIVE PERSONALITY
301.4 OBSESSIVE-COMPULSIVE DIS
301.50 HISTRIONIC PERSON NOS
301.51 CHR FACTITIOUS ILLNESS
301.59 HISTRIONIC PERSON NEC
301.6 DEPENDENT PERSONALITY
301.7 ANTISOCIAL PERSONALITY
301.81 NARCISSISTIC PERSONALITY
301.82 AVOIDANT PERSONALITY DIS
301.83 BORDERLINE PERSONALITY
301.84 PASSIVE-AGGRESSIV PERSON
301.89 PERSONALITY DISORDER NEC
301.9 PERSONALITY DISORDER NOS
302.0 EGO-DYSTONIC SEX ORIENT

302.1 ZOOPHILIA
302.2 PEDOPHILIA
302.3 TRANSVESTIC FETISHISM
302.4 EXHIBITIONISM
302.50 TRANS-SEXUALISM NOS
302.51 TRANS-SEXUALISM, ASEXUAL
302.52 TRANS-SEXUAL, HOMOSEXUAL
302.53 TRANS-SEX, HETEROSEXUAL
302.6 GENDR IDENTITY DIS-CHILD
302.70 PSYCHOSEXUAL DYSFUNC NOS
302.71 HYPOACTIVE SEX DESIRE
302.72 INHIBITED SEX EXCITEMENT
302.73 FEMALE ORGASMIC DISORDER
302.74 MALE ORGASMIC DISORDER
302.75 PREMATURE EJACULATION
302.76 DYSPAREUNIA, PSYCHOGENIC
302.79 PSYCHOSEXUAL DYSFUNC NEC
302.81 FETISHISM
302.82 VOYEURISM
302.83 SEXUAL MASOCHISM
302.84 SEXUAL SADISM
302.85 GEND IDEN DIS, ADOL/ADULT
302.89 PSYCHOSEXUAL DIS NEC
302.9 PSYCHOSEXUAL DIS NOS
303.00 AC ALCOHOL INTOX-UNSPEC
303.01 AC ALCOHOL INTOX-CONTIN
303.02 AC ALCOHOL INTOX-EPISOD
303.03 AC ALCOHOL INTOX-REMISS
303.90 ALCOH DEP NEC/NOS-UNSPEC
303.91 ALCOH DEP NEC/NOS-CONTIN
303.92 ALCOH DEP NEC/NOS-EPISOD
303.93 ALCOH DEP NEC/NOS-REMISS
304.00 OPIOID DEPENDENCE-UNSPEC
304.01 OPIOID DEPENDENCE-CONTIN
304.02 OPIOID DEPENDENCE-EPISOD
304.03 OPIOID DEPENDENCE-REMISS
304.10 SED,HYP,ANXIOLYT DEP-NOS
304.11 SED,HYP,ANXIOLYT DEP-CON
304.12 SED,HYP,ANXIOLYT DEP-EPI
304.13 SED,HYP,ANXIOLYT DEP-REM
304.20 COCAINE DEPEND-UNSPEC
304.21 COCAINE DEPEND-CONTIN
304.22 COCAINE DEPEND-EPISODIC
304.23 COCAINE DEPEND-REMISS
304.30 CANNABIS DEPEND-UNSPEC
304.31 CANNABIS DEPEND-CONTIN
304.32 CANNABIS DEPEND-EPISODIC
304.33 CANNABIS DEPEND-REMISS
304.40 AMPHETAMIN DEPEND-UNSPEC
304.41 AMPHETAMIN DEPEND-CONTIN
304.42 AMPHETAMIN DEPEND-EPISOD
304.43 AMPHETAMIN DEPEND-REMISS
304.50 HALLUCINOGEN DEP-UNSPEC
304.51 HALLUCINOGEN DEP-CONTIN
304.52 HALLUCINOGEN DEP-EPISOD

304.53 HALLUCINOGEN DEP-REMISS
304.60 DRUG DEPEND NEC-UNSPEC
304.61 DRUG DEPEND NEC-CONTIN
304.62 DRUG DEPEND NEC-EPISODIC
304.63 DRUG DEPEND NEC-IN REM
304.70 OPIOID/OTHER DEP-UNSPEC
304.71 OPIOID/OTHER DEP-CONTIN
304.72 OPIOID/OTHER DEP-EPISOD
304.73 OPIOID/OTHER DEP-REMISS
304.80 COMB DRUG DEP NEC-UNSPEC
304.81 COMB DRUG DEP NEC-CONTIN
304.82 COMB DRUG DEP NEC-EPISOD
304.83 COMB DRUG DEP NEC-REMISS
304.90 DRUG DEPEND NOS-UNSPEC
304.91 DRUG DEPEND NOS-CONTIN
304.92 DRUG DEPEND NOS-EPISODIC
304.93 DRUG DEPEND NOS-REMISS
305.00 ALCOHOL ABUSE-UNSPEC
305.01 ALCOHOL ABUSE-CONTINUOUS
305.02 ALCOHOL ABUSE-EPISODIC
305.03 ALCOHOL ABUSE-IN REMISS
305.1 TOBACCO USE DISORDER
305.20 CANNABIS ABUSE-UNSPEC
305.21 CANNABIS ABUSE-CONTIN
305.22 CANNABIS ABUSE-EPISODIC
305.23 CANNABIS ABUSE-IN REMISS
305.30 HALLUCINOG ABUSE-UNSPEC
305.31 HALLUCINOG ABUSE-CONTIN
305.32 HALLUCINOG ABUSE-EPISOD
305.33 HALLUCINOG ABUSE-REMISS
305.40 SED,HYP,ANXIOLYTC AB-NOS
305.41 SED,HYP,ANXIOLYTC AB-CON
305.42 SED,HYP,ANXIOLYTC AB-EPI
305.43 SED,HYP,ANXIOLYTC AB-REM
305.50 OPIOID ABUSE-UNSPEC
305.51 OPIOID ABUSE-CONTINUOUS
305.52 OPIOID ABUSE-EPISODIC
305.53 OPIOID ABUSE-IN REMISS
305.60 COCAINE ABUSE-UNSPEC
305.61 COCAINE ABUSE-CONTINUOUS
305.62 COCAINE ABUSE-EPISODIC
305.63 COCAINE ABUSE-IN REMISS
305.70 AMPHETAMINE ABUSE-UNSPEC
305.71 AMPHETAMINE ABUSE-CONTIN
305.72 AMPHETAMINE ABUSE-EPISOD
305.73 AMPHETAMINE ABUSE-REMISS
305.80 ANTIDEPRESS ABUSE-UNSPEC
305.81 ANTIDEPRESS ABUSE-CONTIN
305.82 ANTIDEPRESS ABUSE-EPISOD
305.83 ANTIDEPRESS ABUSE-REMISS
305.90 DRUG ABUSE NEC-UNSPEC
305.91 DRUG ABUSE NEC-CONTIN
305.92 DRUG ABUSE NEC-EPISODIC
305.93 DRUG ABUSE NEC-IN REMISS
306.0 PSYCHOGEN MUSCULSKEL DIS

306.1 PSYCHOGENIC RESPIR DIS
306.2 PSYCHOGEN CARDIOVASC DIS
306.3 PSYCHOGENIC SKIN DISEASE
306.4 PSYCHOGENIC GI DISEASE
306.50 PSYCHOGENIC GU DIS NOS
306.51 PSYCHOGENIC VAGINISMUS
306.52 PSYCHOGENIC DYSMENORRHEA
306.53 PSYCHOGENIC DYSURIA
306.59 PSYCHOGENIC GU DIS NEC
306.6 PSYCHOGEN ENDOCRINE DIS
306.7 PSYCHOGENIC SENSORY DIS
306.8 PSYCHOGENIC DISORDER NEC
306.9 PSYCHOGENIC DISORDER NOS
307.0 ADULT ONSET FLNCY DISORD
307.1 ANOREXIA NERVOSA
307.20 TIC DISORDER NOS
307.21 TRANSIENT TIC DISORDER
307.22 CHR MOTOR/VOCAL TIC DIS
307.23 TOURETTE´S DISORDER
307.3 STEREOTYPIC MOVEMENT DIS
307.40 NONORGANIC SLEEP DIS NOS
307.41 TRANSIENT INSOMNIA
307.42 PERSISTENT INSOMNIA
307.43 TRANSIENT HYPERSOMNIA
307.44 PERSISTENT HYPERSOMNIA
307.45 NONORGANIC CIRCADIAN RHY
307.46 SLEEP AROUSAL DISORDER
307.47 SLEEP STAGE DYSFUNC NEC
307.48 REPETIT SLEEP INTRUSION
307.49 NONORGANIC SLEEP DIS NEC
307.50 EATING DISORDER NOS
307.51 BULIMIA NERVOSA
307.52 PICA
307.53 RUMINATION DISORDER
307.54 PSYCHOGENIC VOMITING
307.59 EATING DISORDER NEC
307.6 ENURESIS
307.7 ENCOPRESIS
307.80 PSYCHOGENIC PAIN NOS
307.81 TENSION HEADACHE
307.89 PSYCHOGENIC PAIN NEC
307.9 SPECIAL SYMPTOM NEC/NOS
308.0 STRESS REACT, EMOTIONAL
308.1 STRESS REACTION, FUGUE
308.2 STRESS REACT, PSYCHOMOT
308.3 ACUTE STRESS REACT NEC
308.4 STRESS REACT, MIXED DIS
308.9 ACUTE STRESS REACT NOS
309.0 ADJUSTMNT DIS W DEPRESSN
309.1 PROLONG DEPRESSIVE REACT
309.21 SEPARATION ANXIETY
309.22 EMANCIPATION DISORDER
309.23 ACADEMIC/WORK INHIBITION
309.24 ADJUSTMENT DIS W ANXIETY
309.28 ADJUST DIS W ANXIETY/DEP

309.29	ADJ REACT-EMOTION NEC
309.3	ADJUST DISOR/DIS CONDUCT
309.4	ADJ DIS-EMOTION/CONDUCT
309.81	POSTTRAUMATIC STRESS DIS
309.82	ADJUST REACT-PHYS SYMPT
309.83	ADJUST REACT-WITHDRAWAL
309.89	ADJUSTMENT REACTION NEC
309.9	ADJUSTMENT REACTION NOS
310.0	FRONTAL LOBE SYNDROME
310.1	PERSONALITY CHG OTH DIS
310.2	POSTCONCUSSION SYNDROME
310.81	PSEUDOBULBAR AFFECT
310.89	NONPSYCH MNTL DISORD NEC
310.9	NONPSYCHOT BRAIN SYN NOS
311	DEPRESSIVE DISORDER NEC
312.00	UNSOCIAL AGGRESS-UNSPEC
312.01	UNSOCIAL AGGRESSION-MILD
312.02	UNSOCIAL AGGRESSION-MOD
312.03	UNSOCIAL AGGRESS-SEVERE
312.10	UNSOCIAL UNAGGRESS-UNSP
312.11	UNSOCIAL UNAGGRESS-MILD
312.12	UNSOCIAL UNAGGRESS-MOD
312.13	UNSOCIAL UNAGGR-SEVERE
312.20	SOCIAL CONDUCT DIS-UNSP
312.21	SOCIAL CONDUCT DIS-MILD
312.22	SOCIAL CONDUCT DIS-MOD
312.23	SOCIAL CONDUCT DIS-SEV
312.30	IMPULSE CONTROL DIS NOS
312.31	PATHOLOGICAL GAMBLING
312.32	KLEPTOMANIA
312.33	PYROMANIA
312.34	INTERMITT EXPLOSIVE DIS
312.35	ISOLATED EXPLOSIVE DIS
312.39	IMPULSE CONTROL DIS NEC
312.4	MIX DIS CONDUCT/EMOTION
312.81	CNDCT DSRDR CHLDHD ONST
312.82	CNDCT DSRDR ADLSCNT ONST
312.89	OTHER CONDUCT DISORDER
312.9	CONDUCT DISTURBANCE NOS
313.0	OVERANXIOUS DISORDER
313.1	MISERY & UNHAPPINESS DIS
313.21	SHYNESS DISORDER-CHILD
313.22	INTROVERTED DIS-CHILD
313.23	SELECTIVE MUTISM
313.3	RELATIONSHIP PROBLEMS
313.81	OPPOSITION DEFIANT DISOR
313.82	IDENTITY DISORDER
313.83	ACADEMIC UNDERACHIEVMENT
313.89	EMOTIONAL DIS CHILD NEC
313.9	EMOTIONAL DIS CHILD NOS
314.00	ATTN DEFIC NONHYPERACT
314.01	ATTN DEFICIT W HYPERACT
314.1	HYPERKINET W DEVEL DELAY
314.2	HYPERKINETIC CONDUCT DIS
314.8	OTHER HYPERKINETIC SYND

314.9 HYPERKINETIC SYND NOS
315.00 READING DISORDER NOS
315.01 ALEXIA
315.02 DEVELOPMENTAL DYSLEXIA
315.09 READING DISORDER NEC
315.1 MATHEMATICS DISORDER
315.2 OTH LEARNING DIFFICULTY
315.31 EXPRESSIVE LANGUAGE DIS
315.32 RECP-EXPRES LANGUAGE DIS
315.34 SPEECH DEL D/T HEAR LOSS
315.35 CHLDHD ONSET FLNCY DISOR
315.39 SPEECH/LANGUAGE DIS NEC
315.4 DEVEL COORDINATION DIS
315.5 MIXED DEVELOPMENT DIS
315.8 DEVELOPMENT DELAYS NEC
315.9 DEVELOPMENT DELAY NOS
316 PSYCHIC FACTOR W OTH DIS
317 MILD INTELLECT DISABILTY
318.0 MOD INTELLECT DISABILITY
318.1 SEV INTELLECT DISABILITY
318.2 PROFND INTELLCT DISABLTY
319 INTELLECT DISABILITY NOS

Discharges Codes for Transfer to Acute Care Facility
4a Acute Care Facility- General Inpatient Care
4d Acute Care Facility – Department of Defense or Veteran's Administration

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)*
N/A

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:**
Continuous variable
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)*
Better quality = Lower 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.)*

Algorithm Narrative for
OP-18: Median Time from ED Arrival to ED Departure for Discharged ED Patients
Continuous Variable Statement: Time (in minutes) from ED arrival to ED departure for patients discharged from the emergency department.
1. Start processing. Run all cases that are included in the ED Throughput Hospital Outpatient Population Algorithm and pass the edits defined in the Data Processing Flow through this measure. Proceed to ICD-9-CM Principal Diagnosis Code.
2.Check Discharge Code.
a. If Discharge Code is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If Discharge Code equals 6, 7, or 8 the case will proceed to a Measure Category Assignment of B. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
c. If Discharge Code equals 1, 2, 3, 4a, 4b, 4c, 4d, or 5, the case will proceed to Arrival Time.
3. Check Arrival Time.
a. If Arrival Time equals UTD, the case will proceed to a Measure Category Assignment of Y. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If Arrival Time equals Non-UTD Value, the case will proceed to ED Departure Date.
4.Check ED Departure Date.
a. If ED Departure Date is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If ED Departure Date equals UTD, the case will proceed to a Measure Category Assignment of Y. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
c. If ED Departure Date equals non-UTD, the case will proceed to ED Departure Time.
5. Check ED Departure Time.
a. If ED Departure Time is missing, the case will proceed to a Measure Category Assignment of X and will be rejected. Stop processing.
b. If ED Departure Time equals UTD, the case will proceed to a Measure Category Assignment of Y. Stop processing.
c. If ED Departure Time equals non-UTD, the case will proceed to Measurement Value Calculation.
6.Calculate the Measurement Value. Time in minutes is equal to the ED Departure Date and ED Departure Time (in minutes) minus the Outpatient Encounter Date and Arrival Time (in minutes).
7.Check Measurement Value.
a. If Measurement Value is less than 0 minutes, the case will proceed to a Measure Category Assignment of X and will be rejected. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If Measurement Value is greater than or equal to 0 minutes, the case will proceed to a Measure Category Assignment of D1.
8. Initialize the Measure Category Assignment for all cases in D1.
9. Proceed to ICD-9-CM Principal Diagnosis Code.
10.Check ICD-9-CM Principal Diagnosis Code.
a. If ICD-9-CM Principal Diagnosis Code is on Appendix A, OP Table 7.01, the case will proceed to a Measure Category Assignment of D2. Proceed to Discharge Code.
b. If ICD-9-CM Principal Diagnosis Code is not on Appendix A, OP Table 7.01, the case will proceed to Discharge Code.
11. Check Discharge Code.
a. If Discharge Code equals 4a or 4d, the case will proceed to a Measure Category Assignment of D3. Proceed to ICD-9-CM Principal Diagnosis Code.
b. If Discharge Code equals 1, 2, 3, 4b, 4c, or 5, the case will proceed to ICD-9-CM Principal Diagnosis Code.
a. If Observation Services equals YES, the case will proceed to a Measure Category Assignment of D2. Proceed to ICD-9-CM Principal Diagnosis Code.
b. If Observation Services equals NO, the case will proceed to ICD-9-CM Principal Diagnosis Code.
12. Check ICD-9-CM Principal Diagnosis Code.
a. If ICD-9-CM Principal Diagnosis Code is on Appendix A, OP Table 7.01, the case will proceed to a Measure Category Assignment of B. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If ICD-9-CM Principal Diagnosis Code is not on Appendix A, OP Table 7.01, the case will proceed to Discharge Code.
13.Check Discharge Code.
a. If Discharge Code equals 4a or 4d the case will proceed to a Measure Category Assignment of B. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.
b. If Discharge Code equals 1, 2, 3, 4b, 4c, or 5, the case will proceed to a Measure Category Assignment of D. Return to Transmission Data Processing Flow: Clinical in the Data Transmission Section.

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)*
Available at measure-specific web page URL identified in S.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.
Sample Size Requirements
Each hospital is ultimately responsible for meeting or exceeding the quarterly sample size requirement outlined in Table 2. Hospital samples must be monitored to ensure that sampling procedures consistently produce statistically valid and useful data. As a general rule and based on prior experience with CMS hospital inpatient measures, sample size requirements for this project are based on commonly accepted sampling criteria for surveys:

• A 5 percent margin of error is recommended. The margin of error is the extent of error the investigator is willing to tolerate. Lower margins of error (e.g., 3 percent) would require substantially larger sample sizes and generate more reliable results from the samples, but the burden of abstraction may not be acceptable for most providers. Inversely, higher margins of error would require relatively smaller sample sizes but less reliable results from those samples.
For the ED-Throughput measure set, in order to "reduce the burden" of abstraction for smaller hospitals, a ten percent margin of error was employed to limit the number of cases for the sample size requirements.
• The size of the population, also referred to as the universe population, is the volume of eligible patients from which the sample will be drawn. This number is obviously expected to vary widely among providers. Different sample size estimates are provided for various populations. See Table 2 for sample size requirements per quarter.
• Given that the number of cases in the sample could further be reduced during the analysis phase due to missing data in the medical records and additional outpatient measure set-specific exclusion criteria, hospitals are strongly advised to overestimate their sample sizes by 10 to 20 percent, or as much as possible.
• A hospital may choose to use a larger sample size than is required. Hospitals whose outpatient population size is less than the minimum number of cases for the sampling population must include all eligible cases in their data.
• At this time there are no requirements for stratified sampling by surgery type (OP-6/OP-7 sampling population) at the hospital level. Stratified sampling for surgery types would be considered only if the initial project volume of patients for one particular surgery type is unexpectedly and excessively low to generate reliable results at the state or national level, not at the hospital level.
• As a quality check to ensure that sampling methodology was applied correctly, the provider must run a basic comparative analysis of common demographic variables including age distribution, gender ratio, race/ethnicity distribution, and the proportion of Medicare patients between the sampled set and the population of eligible patients. The relative frequencies or distribution of these common variables should be very close between the two data sets. Any significant discrepancy should trigger a review and a restart of the sampling process.
• As indicated earlier, the adequacy of the sample size will be monitored as the project progresses and revised, as needed. Providers that choose to sample are responsible for the sampling process. However, for each sampled case, providers are required to clearly indicate the sample size (n) to which the case belongs, the population size (N) from which the sample was drawn, and the proportion of Medicare and non-Medicare patients in the sample.

Sampling Approaches
As previously stated in this section, hospitals have the option to sample from their population, or submit their entire population. Hospitals that choose to sample must ensure that the sampled data represent their outpatient population by using either the simple random sampling or systematic random sampling method and that the sampling techniques are applied consistently within a quarter. For example, quarterly samples for a sampling population must use consistent sampling techniques across the quarterly submission period.
• Simple random sampling - selecting a sample size (n) from a population of size (N) in such a way that every case has the same chance of being selected.
• Systematic random sampling - selecting every kth record from a population of size (N) in such a way that a sample size of n is obtained, where k = N/n rounded to the lower digit. The first sample record (i.e., the starting point) must be randomly selected before taking every kth record. This is a two-step process:
a) Randomly select the starting point by choosing a number between one and k using a table of random numbers or a computer-generated random number; and
b) Then select every kth record thereafter until the selection of the sample size is completed.

Each hospital is ultimately responsible that the sampling techniques applied for their hospital adhere to the sampling requirements outlined in this manual. Performance measurement systems are responsible for ensuring that the sampling techniques are applied consistently across their client hospitals.

Table 3: Sample Size Requirements per Quarter per Hospital for ED-Throughput Measures
Population Per Quarter:0-900
Quarterly Sample Size:63
Monthly Sample Size:21
Population Per Quarter:= 901
Quarterly Sample Size:96
Monthly Sample Size:32

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.
N/A

S.22. **Missing data** (specify how missing data are handled, e.g., imputation, delete case.)
Required for Composites and PRO-PMs.
"Measure-specific data elements that are missing data* cause the episode of care (EOC) record to be rejected if any measure algorithm results in a Measure Category Assignment equals "X" (missing data).
* Note: A missing value occurs when the abstractor does not select an answer for a data element (leaves it blank) or the software incorrectly transmits a "null" instead of the correct value for a data element. A "UTD" allowable value is not considered missing data."

S.23. **Data Source** *(Check ONLY the sources for which the measure is SPECIFIED AND TESTED).*
If other, please describe in 2a1.26.
Administrative claims

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.
Data collection occurs through vendors or via the CART tool which can be dowloaded free of charge at http://qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1205442057026

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)*
Available at measure-specific web page URL identified in S.1

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

S.27. **Care Setting** *(Check ONLY the settings for which the measure is SPECIFIED AND TESTED)*
Hospital/Acute Care Facility
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
0496_MeasSubm_MeasTesting_1.10.14-635253146336643484.docx

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.**

Abstracted from a record by someone other than person obtaining original information (e.g., chart abstraction for quality measure or registry)

If other:

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)*

ALL data elements are in defined fields in a combination of 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.**

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.**

No feasibility assessment **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.

Specifications (including codes and data elements) are modified twice yearly according to feedback received from clinicians, facilities and experts. Data is available in the medical record and there are no feasibility or implementation issues identified. Missing data regarding timing issues can result in cases being assigned to a noncalculable outcome which does not impair the integrity of our data results but provides a mechanism for facilities to evaluate internal quality improvment efforts to assure accuracy and completion of data collection.

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)
Quality Improvement (Internal to the specific organization)	Public Reporting CMS HIQR Program https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138115987129 Payment Program CMS HIQR Program https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1138115987129 Regulatory and Accreditation Programs Joint Commission Accreditation http://www.jointcommission.org/accreditation_process_overview/ Quality Improvement with Benchmarking (external benchmarking to multiple organizations) CMS HIQR Program https://www.qualitynet.org/dcs/ContentServer?c=Page&pagename=QnetPublic%2FPage%2FQnetTier2&cid=1228768205297

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

CMS HOQR Program has approximately 4000 hospitals participating nationwide. See link above for purpose details.
Joint Commission Accreditation; geographic area and other information unknown, but similar to CMS program. See link above for purpose details.

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**

Trends were provided for the last 5 quarters of available data. The lack of variability in timing may reflect increasing ED volume. The expansion of state Medicaid programs may increase ED crowding in the near future, so times may remain consistent. CMS may stratify data displayed on Hospital Compare based on ED volume in the future.

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.**

It may be valuable to determine whether times decrease in small volume EDs as compared to large volume EDs. The larger volume EDs handle the patients with higher acuity. The Technical Panel supporting this measure set have requested stratification based on acuity for the Hospital Compare display. Consumer testing may be performed before CMS will agree that stratification is valuable to the consumer.

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.**

No unintended consequences identified.

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)**

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

There are Australian measures that look at wait time in the ED, but none in the United States.

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.**

Claims are used to identify the population in the outpatient setting, so E/M codes (and data element) are used for the OP measure. The inpatient measures rely on a data element to identify ED patients.

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.)
Based on a search of the NQF QPS system and NQMC, there are no competing measures in the United States. Australia has several measures that look at ED patients and timing.

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 **Attachment:** Hospital_Level_Distribution_OP18.xlsx

Contact Information

Co.1 **Measure Steward (Intellectual Property Owner):** Centers for Medicare and Medicaid Services
Co.2 **Point of Contact:** Corette, Byrd, corette.byrd@cms.hhs.gov, 410-786-1158-
Co.3 **Measure Developer if different from Measure Steward:** Centers for Medicare & Medicaid Services
Co.4 **Point of Contact:** Fiona, Larbi, Fiona.larbi@cms.hhs.gov, 410-786-7224-

Additional Information

Ad.1 **Workgroup/Expert Panel involved in measure development**
Provide a list of sponsoring organizations and workgroup/panel members' names and organizations. Describe the members' role in measure development.
The measure set has a Technical Expert Panel that provides direction and support. The TEP is involved in revision of measure specifications based on guidelines and emerging science. All changes are vetted through this group.
James Adams, MD-Professor and Chair, Department of Emergency Medicine, Feinberg School of Medicine, Northwestern Memorial Hospital Chicago, IL
James Augustine, MD - Director of Clinical Operations, EMP Management Group, Ltd. Atlanta, GA
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Measure Developer/Steward Updates and Ongoing Maintenance
Ad.2 **Year the measure was first released:** 2008
Ad.3 **Month and Year of most recent revision:** 10, 2014
Ad.4 **What is your frequency for review/update of this measure?** twice yearly
Ad.5 **When is the next scheduled review/update for this measure?** 07, 2015

Ad.6 **Copyright statement:**
Ad.7 **Disclaimers:**

Ad.8 **Additional Information/Comments:**