



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 sub criterion 1b).

Brief Measure Information

NQF #: 3309

Corresponding Measures:

De.2. Measure Title: Risk-Standardized Survival Rate (RSSR) for In-Hospital Cardiac Arrest

Co.1.1. Measure Steward: American Heart Association

De.3. Brief Description of Measure: This measure estimates a hospital -level risk standardized survival rate (RSSR) for patients aged 18 years and older who experience an in-hospital cardiac arrest.

1b.1. Developer Rationale: Survival rates after in-hospital cardiac arrest vary across hospitals and serve as not only an indicator of patient severity of illness, but also as an indicator of success for the resuscitation structures and processes a facility has in place. To date, there has not been a risk-standardized survival rate measure for this population by which facilities can compare themselves to others. This measure is intended to fill that gap.

Chan PS, Berg RA, Spertus JA, Schwamm LH, Bhatt DL, Fonarow GC, et. al. Risk standardizing survival for in-hospital cardiac arrest to facilitate hospital comparisons. JACC. 2013. 62:601-609.

S.4. Numerator Statement: Patients who were alive at discharge

S.6. Denominator Statement: Patients aged 18 years and older with in-hospital cardiac arrest who received chest compression and/or defibrillation

S.8. Denominator Exclusions: None

De.1. Measure Type: Outcome

S.17. Data Source: Registry Data

S.20. Level of Analysis: Facility

IF Endorsement Maintenance – Original Endorsement Date: Jun 10, 2019 **Most Recent Endorsement Date:** Jun 10, 2019

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 sub criteria to pass this criterion and be evaluated against the remaining criteria.**

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

[AHA-RSSR_Evidence_Attachment_v4_08NOV18.docx](#)

1a.1 For Maintenance of Endorsement: Is there new evidence about the measure since the last update/submission?

Do not remove any existing information. If there have been any changes to evidence, the Committee will consider the new evidence. Please use the most current version of the evidence attachment (v7.1). Please use red font to indicate updated evidence.

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., how the measure will improve the quality of care, the benefits or improvements in quality envisioned by use of this measure)

If a COMPOSITE (e.g., combination of component measure scores, all-or-none, any-or-none), SKIP this question and answer the composite questions.

Survival rates after in-hospital cardiac arrest vary across hospitals and serve as not only an indicator of patient severity of illness, but also as an indicator of success for the resuscitation structures and processes a facility has in place. To date, there has not been a risk-standardized survival rate measure for this population by which facilities can compare themselves to others. This measure is intended to fill that gap.

Chan PS, Berg RA, Spertus JA, Schwamm LH, Bhatt DL, Fonarow GC, et. al. Risk standardizing survival for in-hospital cardiac arrest to facilitate hospital comparisons. JACC. 2013. 62:601-609.

1b.2. Provide performance scores on the measure as specified (current and over time) at the specified level of analysis. *(This is required for maintenance of endorsement. 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 include.) This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

As shown in section 2b4.2 of the testing attachment, performance scores are as follows:

2011- May 2015

Based on the sample of 326 hospitals during this time period, the mean performance risk-standardized survival rate was 24% (standard deviation of 5%), and the median performance rate was 24% (minimum rate of 11% and a maximum rate of 38%, with range of 27%).

2013

Based on the sample of 273 hospitals during this year, the mean performance risk-standardized survival rate was 25% (standard deviation of 5%), and the median performance rate was 25% (minimum rate of 9% and a maximum rate of 39%, with range of 30%).

2014

Based on the sample of 259 hospitals, the mean performance risk-standardized survival rate was 24% (standard deviation of 5%), and the median performance rate was 24% (minimum rate of 14% and a maximum rate of 40%, with range of 26%).

The range of performance demonstrated above suggests there is clinically meaningful variation across hospitals' risk-standardized survival rate for IHCA.

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 maintenance of endorsement. Describe the data source including number of measured entities; number of patients; dates of data; if a sample, characteristics of the entities included.) For measures that show high levels of performance, i.e., "topped out", disparities data may demonstrate an opportunity for improvement/gap in care for certain sub-populations. This information also will be used to address the sub-criterion on improvement (4b1) under Usability and Use.*

Since the RSSR measure is a hospital-level measure, race-specific survival was not assessed at the patient-level. Instead, we divided hospitals between 2011 and 2015 with at least 20 IHCA patients into quartiles of patients of black race. The median hospital percentage of IHCA patients of black race was 11% (IQR: 4% to 27%). Hospitals with the smallest number of black patients (quartile 1) had a higher unadjusted (observed) and RSSR for IHCA as compared with hospitals that had the highest number of black patients (quartile 4), suggesting some degree of disparity in RSSRs by hospital racial composition (See table included in section 1.8 of the NQF Testing Attachment).

We therefore did not include race/ethnicity as a model covariate, because we did not want survival rates between hospitals to mask significant differences that may be due to race. In fact, if two hospitals do differ in their survival rates, race may be one reason why.

1b.5. If no or limited data on disparities from the measure as specified is reported in 1b.4, then provide a summary of data from the literature that addresses disparities in care on the specific focus of measurement. Include citations. Not necessary if performance data provided in 1b.4

Not applicable.

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 sub criteria 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. Non-Condition Specific(check all the areas that apply):

De.7. Target Population Category (Check all the populations for which the measure is specified and tested if any):

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.)

Not applicable.

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)

This is not an eMeasure **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: [RSSR_Specs_AHA_FINAL.pdf](#)

S.2c. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

No, this is not an instrument-based measure **Attachment:**

S.2d. Is this an instrument-based measure (i.e., data collected via instruments, surveys, tools, questionnaires, scales, etc.)? Attach copy of instrument if available.

S.3.1. For maintenance of endorsement: Are there changes to the specifications since the last updates/submission. If yes, update the specifications for S1-2 and S4-22 and explain reasons for the changes in S3.2.

S.3.2. For maintenance of endorsement, please briefly describe any important changes to the measure specifications since last measure update 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) DO NOT include the rationale for the measure.

IF an OUTCOME MEASURE, state the outcome being measured. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Patients who were alive at discharge

S.5. 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, time period for data collection, 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 (S.14).

Target population for the numerator is identified via the Get With The Guidelines (GWTG)—Resuscitation Registry using the time period and data fields below:

Time Period for Data Collection: At each hospital discharge during the measurement period.

‘Discharge Status’ = Alive

S.6. Denominator Statement (Brief, narrative description of the target population being measured)

Patients aged 18 years and older with in-hospital cardiac arrest who received chest compression and/or defibrillation

S.7. Denominator Details (All information required to identify and calculate the target population/denominator such as definitions, time period for data collection, 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 target population is identified. Calculation of the risk-adjusted outcome should be described in the calculation algorithm (S.14).

Target population for the denominator is identified via the Get With The Guidelines (GWTG)—Resuscitation Registry using the time period and data fields below:

Time Period for Data Collection: 12 consecutive months

‘Age at System Entry’ > = 18 years

AND

‘First documented pulseless rhythm’ = Asystole, Pulseless Electrical Activity (PEA), Pulseless Ventricular Tachycardia, or Ventricular Fibrillation (VF)

AND

‘Did patient receive chest compressions and/or defibrillation during this event?’ = Yes

S.8. Denominator Exclusions (Brief narrative description of exclusions from the target population)

None

S.9. Denominator Exclusion Details (All information required to identify and calculate exclusions from the denominator such as definitions, time period for data collection, 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.)

S.10. Stratification Information (Provide all information required to stratify the measure results, if necessary, including the stratification variables, definitions, specific data collection items/responses, code/value sets, and the risk-model covariates and coefficients for the clinically-adjusted version of the measure when appropriate – 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.)

Not applicable.

S.11. Risk Adjustment Type (Select type. Provide specifications for risk stratification in measure testing attachment)

Statistical risk model

If other:

S.12. Type of score:

Other (specify):

If other: Risk standardized rate

S.13. 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 = Higher score

S.14. Calculation Algorithm/Measure Logic (Diagram or 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; time period for data, aggregating data; risk adjustment; etc.)

The measure score is calculated as follows:

1. Hospitals with 20 or more cases of in-hospital cardiac arrest during the measurement period are identified as eligible for the measure.
2. Patients for inclusion are identified using inclusion criteria as described above (S.6 through S.9)
3. Patients meeting the numerator (S.4-S.5) are determined.
4. Variables for inclusion in risk adjustment are pulled.
5. Measure score is calculated using data aggregated from all registry participants, as described below and within the testing attachment.

The measure is adjusted using the variables below:

1. Age
2. Initial cardiac arrest rhythm
3. Hospital location
4. Hypotension
5. Sepsis
6. Metastatic or hematologic malignancy
7. Hepatic insufficiency
8. Mechanical ventilation
9. Intravenous vasopressor

Measure Calculation:

- 1) Create a model for predictors of in-hospital cardiac arrest (IHCA). Since patients at a given hospital with IHCA will have correlated outcomes, we use a multivariable hierarchical logistic regression model, wherein patients will be nested within hospitals in the model and hospitals are modeled as random effects.
- 2) A number of demographic (age category, sex) and comorbidity variables (includes pre-existing conditions and interventions in place at the time of cardiac arrest) are considered for model inclusion. Essentially, we consider almost all variables as potential predictors in the model.
- 3) An initial “full” model is generated with significant predictors of survival to discharge.
- 4) Within this initial “full” model, we then work to sequentially eliminate predictors with the smallest contribution to the model. This is done to derive a more parsimonious, or “reduced”, model with 95% of the initial “full” model’s predictive ability – in essence, to create a model with many fewer variables with almost identical predictive (discriminative) ability as the “full” model.
- 5) Model discrimination with the “reduced” model is then assessed with c-statistics, and model validation performed by comparing the R2 of the predicted and observed plots (this information is described in the next section).
- 6) Once the “reduced” predictive model is confirmed, as above, then one can calculate RSSRs for each hospital. This is accomplished

by multiplying the weighted average unadjusted hospital survival rate for the entire study sample by the hospital's predicted vs. expected survival rate. So, a hospital with a predicted vs. expected survival rate > 1 would have a RSSR higher than the weighted mean, and one with a ratio < 1 would have a RSSR below the weighted mean.

7) The expected survival number (denominator) would be determined by applying the model's regression coefficients for covariates to each patient and summing up the probabilities for all patients within that hospital. This number uses the average hospital-level random intercept in the model.

8) The predicted survival number (numerator) is the number of survivors at a hospital, which is determined in the same way as the expected survival except that the hospital's specific random intercept is used.

S.15. Sampling (If measure is based on a sample, provide instructions for obtaining the sample and guidance on minimum sample size.)

IF an instrument-based performance measure (e.g., PRO-PM), identify whether (and how) proxy responses are allowed.

Not applicable.

S.16. Survey/Patient-reported data (If measure is based on a survey or instrument, provide instructions for data collection and guidance on minimum response rate.)

Specify calculation of response rates to be reported with performance measure results.

Not applicable

S.17. Data Source (Check ONLY the sources for which the measure is SPECIFIED AND TESTED).

If other, please describe in S.18.

Registry Data

S.18. Data Source or Collection Instrument (Identify the specific data source/data collection instrument (e.g. name of database, clinical registry, collection instrument, etc., and describe how data are collected.)

IF instrument-based, identify the specific instrument(s) and standard methods, modes, and languages of administration.

American Heart Association (AHA) Get With The Guidelines-Resuscitation (GWTG-R) Registry

S.19. Data Source or Collection Instrument (available at measure-specific Web page URL identified in S.1 OR in attached appendix at A.1)

Available in attached appendix at A.1

S.20. Level of Analysis (Check ONLY the levels of analysis for which the measure is SPECIFIED AND TESTED)

Facility

S.21. Care Setting (Check ONLY the settings for which the measure is SPECIFIED AND TESTED)

Emergency Department and Services, Inpatient/Hospital

If other:

S.22. 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.)

Not Applicable

2. Validity – See attached Measure Testing Submission Form

Resubmission_Document_3309_nqf_testing_attachment_08_16_2018_FINAL.docx

2.1 For maintenance of endorsement

Reliability testing: If testing of reliability of the measure score was not presented in prior submission(s), has reliability testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.2 For maintenance of endorsement

Has additional empirical validity testing of the measure score been conducted? If yes, please provide results in the Testing attachment. Please use the most current version of the testing attachment (v7.1). Include information on all testing conducted (prior testing as well as any new testing); use red font to indicate updated testing.

2.3 For maintenance of endorsement

Risk adjustment: For outcome, resource use, cost, and some process measures, risk-adjustment that includes social risk factors is not prohibited at present. Please update sections 1.8, 2a2, 2b1, 2b4.3 and 2b5 in the Testing attachment and S.140 and S.11 in the online submission form. NOTE: These sections must be updated even if social risk factors are not included in the risk-adjustment strategy. You MUST use the most current version of the Testing Attachment (v7.1) -- older versions of the form will not have all required questions.

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 or collected by and used by healthcare personnel during the provision of care (e.g., blood pressure, lab value, diagnosis, depression score), 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) Update this field for **maintenance of endorsement**.

ALL data elements are in defined fields in electronic clinical data (e.g., clinical registry, nursing home MDS, home health OASIS)

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. For **maintenance of endorsement**, if this measure is not an eMeasure (eCQM), please describe any efforts to develop an eMeasure (eCQM).

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. Please also complete and attach the NQF Feasibility Score Card.

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. Required for maintenance of endorsement. Describe difficulties (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 instrument-based, consider implications for both individuals providing data (patients, service recipients, respondents) and those whose performance is being measured.

Given that the data for this measure is collected through the Get With the Guidelines – Resuscitation Registry, and is not collected in an electronic health record, no feasibility assessment was performed. No issues with data collection have been identified and no

modifications have been made to this measure, as collected in the GWTG – Resuscitation Registry, due to issues with data collection, sampling or cost.

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).

Not applicable.

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.

Specific Plan for Use	Current Use (for current use provide URL)

4a1.1 For each CURRENT use, checked above (update for maintenance of endorsement), provide:

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

Name of the program and sponsor: American Heart Association Get With The Guidelines-Resuscitation Registry

Purpose: Get With The Guidelines®-Resuscitation is the American Heart Association's collaborative quality improvement program demonstrated to improve adherence to evidence-based care of patients who experience an in-hospital resuscitation event or received post cardiac arrest care following an in-hospital or out-of-hospital event. The program facilitates the efficient capture, analysis and reporting of data that empowers and supports the implementation of current guidelines, creation and dissemination of new knowledge, and development of next generation, evidence-based practice in resuscitation science. Hospitals are able to track data for Cardiopulmonary Arrest (CPA), Medical Emergency Team (MET), Post-Cardiac Arrest Care (PCAC) and Acute Respiratory Compromise (ARC) in the Web-based Patient Management Tool™ (powered by Quintiles Real-World & Late Phase Research). The PMT provides decision support, robust registry, real-time benchmarking capabilities and other performance improvement methodologies toward the goal of enhancing patient outcomes and saving lives.

The primary goal of Get With The Guidelines-Resuscitation is to save more lives by preventing in-hospital cardiac arrest and optimizing outcomes through benchmarking, quality improvement, knowledge translation, and research.

Level of measurement: Hospital (facility). There are currently 373 hospitals participating in the registry that are geographically diverse.

Name of Program and Sponsor: Recognition Program: American Heart Association Get With The Guidelines-Resuscitation Recognition Program

Purpose: Hospitals that participate actively and consistently in Get With The Guidelines®--Resuscitation are eligible for public recognition. Participating in GWTG-R is the first level of recognition. It acknowledges program participation and entry of baseline

data into the Patient Management Tool™. This recognition program launched on January 1, 2016.

Awards recognize hospitals that demonstrate at least 85 percent compliance in each of the four Get With The Guidelines-Resuscitation Recognition Measures. The different levels reflect the amount of time for which the hospital demonstrates performance.

- Bronze recognizes performance of 1 calendar quarter.
- Silver recognizes performance of 1 calendar year (January 1st to December 31st).
- Gold recognizes performance of 2 consecutive calendar years (January 1st to December 31st).

In 2017, 128 participating hospitals received public recognition in the program; 11 Bronze, 66 Silver, and 51 Gold.

Recognition Measures include:

Adult or Pediatric

- CPA: Time to first chest compressions ≤ 1 min in adult or pediatric patients and newborn/neonates ≥ 10 min old: Percent of events in adult or pediatric patients where time to first chest compressions ≤ 1 minute of event recognition.
- CPA: Device confirmation of correct endotracheal tube placement: Percent of adult or pediatric events with an endotracheal tube placement which was confirmed to be correct.
- CPA: Time to first shock ≤ 2 min for VF/pulseless VT first documented rhythm: Percent of events in adult or pediatric patients with VF/pulseless VT first documented rhythm in whom time to first shock ≤ 2 minutes of event recognition.
- CPA: Percent pulseless cardiac events monitored or witnessed: Percent of events in adult or Pediatric patients who were monitored or witnessed at the time of arrest.

Newborn/Neonate

- CPA: Time to first chest compressions ≤ 1 min in adult and pediatric patients and newborn/neonates ≥ 10 min old: Percent of events in newborn/neonates ≥ 10 minutes old where time to first chest compressions ≤ 1 minute of event recognition.
- CPA: Time to first chest compressions ≤ 2 min for newborn/neonates < 10 min old: Percent of events in newborn/neonates < 10 minutes old with time to first chest compressions ≤ 2 minutes of event recognition.
- CPA: Time to invasive airway ≤ 2 min in newborn/neonates from onset of cardiac event: Percent of newborn/neonatal events with an invasive airway inserted within 2 minutes of event recognition.
- CPA: Device confirmation of correct endotracheal tube placement: Percent of events with an endotracheal tube placement which was confirmed to be correct.

Please note: Recognition criteria are subject to change based on program enhancements.

Level of Measurement: Hospital (facility).

4a1.2. 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?)

Not applicable.

4a1.3. 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.)

The American Heart Association is currently in the early planning stages of a voluntary public reporting program for the Get With The Guidelines-Resuscitation program and is additionally planning on adding this measure to the Get With The Guidelines-Resuscitation recognition program in the near future.

4a2.1.1. Describe how performance results, data, and assistance with interpretation have been provided to those being measured or other users during development or implementation.

How many and which types of measured entities and/or others were included? If only a sample of measured entities were included, describe the full population and how the sample was selected.

The measure and its specifications and results were vetted with the American Heart Association Research Committee chairs and feedback was provided. This feedback was incorporated into the final measure

4a2.1.2. Describe the process(es) involved, including when/how often results were provided, what data were provided, what educational/explanatory efforts were made, etc.

Participants in the Get With The Guidelines-Resuscitation program have access to their data through the registry (also called the Patient Management Tool), where they are able to query and review results. Additionally, they receive a separate feedback report, available as a pdf download, of their risk-standardized in-hospital cardiac arrest results (example attached).

4a2.2.1. Summarize the feedback on measure performance and implementation from the measured entities and others described in 4d.1.

Describe how feedback was obtained.

Not applicable.

4a2.2.2. Summarize the feedback obtained from those being measured.

Not applicable.

4a2.2.3. Summarize the feedback obtained from other users

Not applicable.

4a2.3. Describe how the feedback described in 4a2.2.1 has been considered when developing or revising the measure specifications or implementation, including whether the measure was modified and why or why not.

Not applicable.

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.

4b1. Refer to data provided in 1b but do not repeat here. Discuss any progress on improvement (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.)

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.

Survival rates after in-hospital cardiac arrest had started to improve prior to the introduction of the feedback reports regarding results on the risk-standardized in-hospital cardiac arrest survival. Nonetheless, the wide variation in results underscores the importance of this measure and the feedback of its results to facilities in order to support efforts to improve patient survival rates after in-hospital cardiac arrest.

4b2. 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).

4b2.1. Please explain any unexpected findings (positive or negative) during implementation of this measure including unintended impacts on patients.

Not applicable.

4b2.2. Please explain any unexpected benefits from implementation of this measure.

Not applicable.

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.
[No](#)

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.

5a. Harmonization of Related Measures

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 harmonized to the extent possible?

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

[Not applicable.](#)

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.)

[Not applicable.](#)

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:** [AHA_RSSR_Supplemental_Appendix.pdf](#)

Contact Information

Co.1 Measure Steward (Intellectual Property Owner): [American Heart Association](#)

Co.2 Point of Contact: [Melanie, Shahriary, melanie.shahriary@heart.org, 301-651-7548-](#)

Co.3 Measure Developer if different from Measure Steward: [American Heart Association](#)

Co.4 Point of Contact: [Melanie, Shahriary, melanie.shahriary@heart.org, 301-651-7548-](#)

Additional Information

<p>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. Development of this measure by the American Heart Association GWTG-Resuscitation Investigators led to publication of the methodology (article attached).</p> <p>Representing the American Heart Association GWTG-Resuscitation Investigators (Get With The Guidelines-Resuscitation Adult Task Force)</p> <p>Paul S. Chan, MD, MS Robert A. Berg, MD John A. Spertus, MD, MPH Lee H. Schwamm, MD Deepak L. Bhatt, MD, MPH Gregg C. Fonarow, MD Paul A. Heidenreich, MD, MS Brahamajee K. Nallomothu, MD, MPH Fengming Tang, MS Raina M. Merchant, MD, MSHP Comilla Sasson MD, MS Steven Bradley, MD, MPH Michael W. Donnino, MD Dana P. Edelson MD, MS Robert T. Faillace MD, ScM Romergryko Geocadin, MD AHA Staff: Tanya Truitt</p>
<p>Measure Developer/Steward Updates and Ongoing Maintenance Ad.2 Year the measure was first released: 2013 Ad.3 Month and Year of most recent revision: 2017 Ad.4 What is your frequency for review/update of this measure? Annual Review Ad.5 When is the next scheduled review/update for this measure? 2018</p>
<p>Ad.6 Copyright statement: © 2017 American Heart Association/American Stroke Association. All Rights Reserved. Ad.7 Disclaimers:</p>
<p>Ad.8 Additional Information/Comments:</p>