

GWTG-R 2017 Measures Webinar: Measure Change Overview

Tuesday May 16, 2017

1:00pm – 2:00pm Central

Presenters:

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Our Presenters



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Get With The Guidelines®

Core Principles of Get With The Guidelines

- Focus is on quality improvement
- Success is in translating guidelines into clinical practice in the hospital setting
- Capitalizing on the ‘teachable moment’ for both patient and family
- Data drives change- moving from simply collecting data to driving process and system improvements by measuring trends in compliance in real time
- Celebrating success of improved compliance within one hospital, in a region, and across the country!
- Best Practice sharing within the network of hospitals
- Evaluation through analytics to highlight key insights as well as consider future efforts

Moving Hospitals Toward A Performance Improvement Approach For In-Hospital Cardiac Arrest

Five Key Metrics Based On Data Of What Matters for Adults

1. Increase Survival to Discharge
2. Decrease Time to Defibrillation
3. Decrease Unmonitored/Unwitnessed Arrests
4. Decrease Time to Chest Compressions
5. Confirmation of Endotracheal Tube Placement



Scope of Measures Updates

Populations groupings were updated to add a category of Newly Born, which is now distinct from Neonate

- **Adult** population is age ≥ 18 years at the time of the CPA event.
- **Pediatric** population is age < 18 years and ≥ 1 years at the time of the CPA event
- **Neonate/Infant** population is age < 1 year old and ≥ 24 hours at the time of the CPA event
(previously < 2 years)
- **Newly added: Newly born** population is age < 24 hours at the time of the CPA event

For more in-depth discussion of the Pediatric, Neonatal and Newly Born measure changes, please register for our companion webinar on May 22, 2017

GWTG-R 2017 Measures Webinar: Review of Pediatric, Neonatal and Newly Born

Monday May 22, 2017
11am – 12pm Central

REGISTER: <https://engage.vevent.com/rt/ahaevents~05222017>

Presenters: Vinay Nadkarni, MD
Elizabeth Foglia, MD
Christina Sterzing, RHIA



Located in the Files section of today's webinar

Access online at [2017 GWTG- R Recognition Measures Guide](#)

Get With The Guidelines®-Resuscitation 2017 Recognition Measures Guide

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Crosswalk of Measure Changes



Pediatric Measures Crosswalk

Pediatric population is age ≥ 1 year and < 18 years

Current Measure	New Measure	Change Notes
*Device confirmation of correct endotracheal tube placement: Percent of CPA events in pediatric patients with which an endotracheal tube placement which was confirmed to be correct.	*Confirmation of airway device placement in trachea: Percent of CPA events in pediatric patients who had confirmation of airway device placement in trachea.	<p>The name and data element to support this measure were updated to more accurately reflect current terminology.</p> <p>The measure was also updated to include patients who had a device placed prior to the arrest event, as measuring airway device confirmation is important in this group as well.</p> <ul style="list-style-type: none"> Updates were made to the data element: "Section 2.3 Interventions in place PRIOR" to capture ET and TT airway devices. If selected, "method of confirmation" question in Section 4.3 is required.
Time to first chest compressions ≤ 1 min in pediatric patients: Percent of events where time to first chest compressions ≤ 1 minute	Time to first chest compressions ≤ 1 min in pediatric patients: Percent of events where time to first chest compressions ≤ 1 minute	No significant change
Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA) <i>Quality:</i> Percent of events in pediatric patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA): Percent of events in pediatric patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	This measure was promoted from Quality to Achievement and replaced the "Time to first shock ≤ 2 mins in VF/pulseless VT first documented rhythm."
Percent pulseless cardiac events occurring in an ICU setting: Percent of pulseless cardiac events occurring in an ICU setting (Adult ICU, PICU, Pediatric Cardiac ICU) versus a general inpatient area (General inpatient area, Step down/telemetry)	Percent pulseless cardiac events occurring in an ICU setting: Percent of pulseless cardiac events occurring in an ICU setting (Adult ICU, PICU, Pediatric Cardiac ICU) versus a general inpatient area (General inpatient area, Step down/telemetry)	This measure was promoted from Reporting to Achievement. This measure also replaces the "Percent Pulseless Cardiac events monitored or witnessed" measure. Data shows pediatric patients who arrest in ICU settings have better survival rates and outcomes.

Neonate/Infant Measures Crosswalk

Neonate population is age ≥ 24 hours old and < 1 year

Current Measure	New Measure	Change Notes
*Device confirmation of correct endotracheal tube placement: Percent of CPA events in neonatal patients with which an endotracheal tube placement was confirmed to be correct.	*Confirmation of airway device placement in trachea: Percent of CPA events in neonatal patients who had confirmation of airway device placement in trachea.	<p>The name and data element to support this measure were updated to more accurately reflect current terminology.</p> <p>The measure was also updated to include patients who had a device placed prior to the arrest event, as measuring airway device confirmation is important in this group as well.</p> <ul style="list-style-type: none"> - Updates were made to the data element: "Section 2.3 Interventions in place PRIOR" to capture ET and TT airway devices. If selected, "method of confirmation" question in Section 4.3 is required.
Time to first chest compressions ≤ 1 min in pediatric patients: Percent of events where time to first chest compressions ≤ 1 minute	Time to first chest compressions ≤ 1 min in pediatric patients: Percent of events where time to first chest compressions ≤ 1 minute	No significant change
Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA) <i>Quality:</i> Percent of events in neonatal patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA): Percent of events in neonatal patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	This measure was promoted from Quality to Achievement and replaced the "Time to first shock ≤ 2 mins in VF/pulseless VT first documented rhythm."
Percent pulseless cardiac events occurring in an ICU setting: Percent of pulseless cardiac events occurring in an ICU setting (Adult ICU, PICU, Pediatric Cardiac ICU) versus a general inpatient area (General inpatient area, Step down/telemetry)	Percent pulseless cardiac events occurring in an ICU setting: Percent of pulseless cardiac events occurring in an ICU setting (Adult ICU, PICU, Pediatric Cardiac ICU) versus a general inpatient area (General inpatient area, Step down/telemetry)	This measure was promoted from Reporting to Achievement. This measure also replaces the "Percent Pulseless Cardiac events monitored or witnessed" measure. Data shows patients who arrest in ICU settings have better survival rates and outcomes.

Newly Born Measures Crosswalk

Newly Born population is event occurred at delivery (and less than 24 hours old)

Current Measure	New Measure	Change Notes
Not applicable (similar to the "Time to first assisted ventilation <=1 min" Quality measure).	Time to positive pressure ventilation <1 minute from CPA recognition: Percent of CPA events in newly born patients where the positive pressure ventilation was within 1 minute of event recognition.	Similar to time to the "Time to first assisted ventilation <=1 min" quality measure. However, has been updated to include LMA, ET, and TT. Measure also gives credit for positive pressure ventilation in place prior to the start of the event.
Time to invasive airway ≤ 2 min in newborn/neonates: Percent of newborn/neonatal events with an invasive airway inserted within 2 minutes of event recognition	Advanced airway placed prior to the initiation of chest compressions: Percent of CPA events in newly born patients who had an advanced airway (either laryngeal mask airway (LMA), endotracheal tube (ET) or tracheostomy tube) placed prior to initiation of chest compressions.	The "Time to invasive airway <=2 min in newborn/neonate" is being replaced with "Advanced airway placed prior to the initiation of chest compressions" to reflect the appropriate sequence of action in a newly born event.
Not applicable	Pulse oximetry in place prior to the initiation of chest compressions: Percent of CPA events in newly born patients where pulse oximetry was in place prior to the initiation of chest compressions	This is a new measure to evaluate the sequence of events during a newly born resuscitation event. The 2010 NRP guidelines included the use of pulse oximetry for oxygen monitoring; this monitor also provides a continuous and objective heart rate assessment during newborn resuscitation.
*Device confirmation of correct endotracheal tube placement: Percent of CPA events in newly born patients with which an endotracheal tube placement was confirmed to be correct.	*Confirmation of airway device placement in trachea: Percent of CPA events in newly born patients who had confirmation of airway device placement in trachea.	The name and data element to support this measure were updated to more accurately reflect current terminology. The measure was also updated to include patients who had a device placed prior to the arrest event, as measuring airway device confirmation is important in this group as well. Updates were made to the data element: "Section 2.3 Interventions in place PRIOR" to capture ET and TT airway devices. If selected, "method of confirmation" question in Section 4.3 is required.

Adult Measures Crosswalk

Adult population is age ≥ 18 years

Current Measure	New Measure	Change Notes
Time to first shock ≤ 2 min for VF/pulseless VT first documented rhythm: Percent of events in adult patients with VF/pulseless VT first documented rhythm in whom time to first shock ≤ 2 minutes of event recognition.	Time to first shock ≤ 2 min for VF/pulseless VT first documented rhythm: Percent of events in adult patients with VF/pulseless VT first documented rhythm in whom time to first shock ≤ 2 minutes of event recognition.	No significant changes
Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA) <i>Quality:</i> Percent of events in adult patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA): Percent of events in adult patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.	This measure was promoted from Quality to Achievement and replaced the "Time to Chest Compressions ≤ 1 min" Achievement measure.
Percent Pulseless Cardiac events monitored or witnessed: Percent of pulseless cardiac patient events were monitored or witnessed	Percent Pulseless Cardiac events monitored or witnessed: Percent of pulseless cardiac patient events were monitored or witnessed	No significant changes
*Device confirmation of correct endotrachealtube placement: Percent of CPA events in adult patients with which an endotracheal tube placement which was confirmed to be correct. *This new measure and the old measure will be offered in tandem for 2017. With automated awards, AHA will use whichever value is higher. However, sites must be fully transitioned to the new measure by 2018.	*Confirmation of airway device placement in trachea: Percent of CPA events in adult patients who had confirmation of airway device placement in trachea.	The name and data element to support this measure were updated to more accurately reflect current terminology. The measure was also updated to include patients who had a device placed prior to the arrest event, as measuring airway device confirmation is important in this group as well. <ul style="list-style-type: none"> - Updates were made to the data element: "Section 2.3 Interventions in place PRIOR" to capture ET and TT airway devices. If selected, "method of confirmation" question in Section 4.3 is required.

Adult Measures

Adult population is age ≥ 18 years

Measure: Time to first shock ≤ 2 min for VF/pulseless VT
first documented rhythm: *Percent of events in adult patients with VF/pulseless VT first documented rhythm in whom time to first shock ≤ 2 minutes of event recognition.*

NO CHANGE FOR 2017



Measure: Time to first shock ≤ 2 min for VF/pulseless VT first documented rhythm:
Percent of events in adult patients with VF/pulseless VT first documented rhythm in whom time to first shock ≤ 2 minutes of event recognition.

Guideline Recommendation:

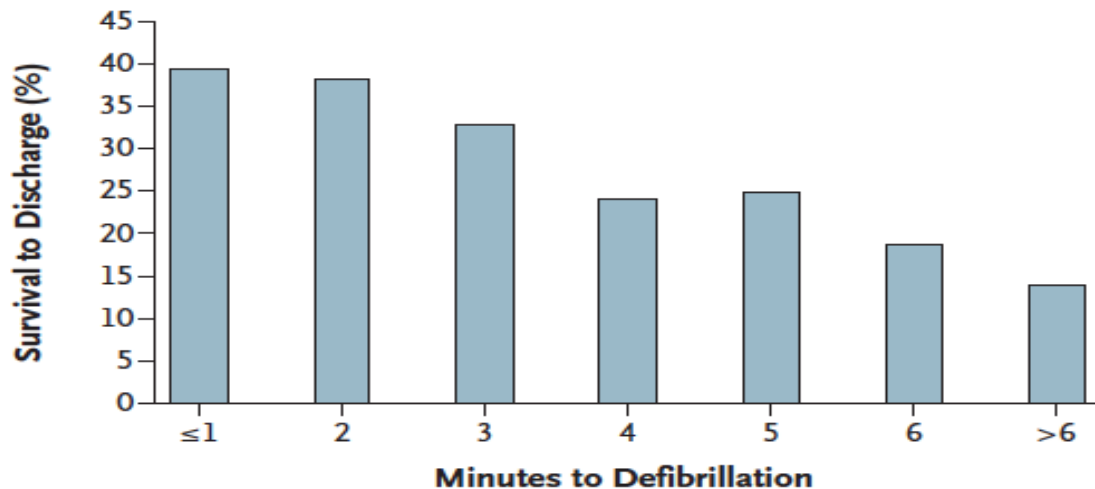
Class I

Early defibrillation for cardiac arrest was adopted as one of the important links in the ‘chain of survival’ concept to enhance resuscitation care. ¹ The guidelines recommend that defibrillation should be performed within 2 minutes of cardiac arrest due to ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT) defibrillation should be resuscitation. ²

Rationale:

Defibrillation is the definitive treatment for cardiac arrest due to VF or pulseless VT.

Moreover, the probability of successful defibrillation decreases rapidly over time, and if left untreated, VF can deteriorate into asystole.² Several observational studies have showed a strong association between defibrillation time and survival to discharge in patients with in-hospital cardiac arrest, although some of these studies were not restricted to patients VF or pulseless VT. ³⁻⁶



Minutes to Defibrillation	No. of Patients	Survived to Discharge	Unadjusted Odds Ratio (95% CI)	Adjusted Odds Ratio (95% CI)	P Value
≤1	3994	1577	Reference	Reference	—
2	750	286	0.94 (0.81–1.10)	1.02 (0.85–1.21)	0.85
3	472	160	0.78 (0.64–0.96)	0.84 (0.67–1.05)	0.12
4	291	67	0.46 (0.35–0.61)	0.50 (0.37–0.67)	<0.001
5	394	98	0.51 (0.40–0.64)	0.54 (0.42–0.70)	<0.001
6	145	27	0.35 (0.23–0.54)	0.39 (0.25–0.61)	<0.001
>6	743	103	0.25 (0.20–0.31)	0.27 (0.21–0.34)	<0.001

Chan PS, Krumholz HM, Nichol G, Nallamothu BK, American Heart Association National Registry of Cardiopulmonary Resuscitation I. Delayed time to defibrillation after in-hospital cardiac arrest. *N Engl J Med* 2008;358:9-17.

1. Cummins RO, Ornato JP, Thies WH, Pepe PE. Improving survival from sudden cardiac arrest: the "chain of survival" concept. A statement for health professionals from the Advanced Cardiac Life Support Subcommittee and the Emergency Cardiac Care Committee, American Heart Association. *Circulation* 1991;83:1832-47.
2. Link MS, Atkins DL, Passman RS, et al. Part 6: electrical therapies: automated external defibrillators, defibrillation, cardioversion, and pacing: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2010;122:S706-19.
3. Chan PS, Krumholz HM, Nichol G, Nallamothu BK, American Heart Association National Registry of Cardiopulmonary Resuscitation I. Delayed time to defibrillation after in-hospital cardiac arrest. *N Engl J Med* 2008;358:9-17.
4. Hajbaghery MA, Mousavi G, Akbari H. Factors influencing survival after in-hospital cardiopulmonary resuscitation. *Resuscitation* 2005;66:317-21.
5. Herlitz J, Aune S, Bang A, et al. Very high survival among patients defibrillated at an early stage after in-hospital ventricular fibrillation on wards with and without monitoring facilities. *Resuscitation* 2005;66:159-66.
6. Skrifvars MB, Rosenberg PH, Finne P, et al. Evaluation of the in-hospital Utstein template in cardiopulmonary resuscitation in secondary hospitals. *Resuscitation* 2003;56:275-82.

Measure: Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA):

Percent of events in adult patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.

CHANGES for 2017

- Measure promoted from Quality to Achievement
- Replaced the time to Chest Compressions ≤ 1 min Achievement measure



Measure: Time to IV/IO epinephrine ≤ 5 minutes for asystole or Pulseless Electrical Activity (PEA): *Percent of events in adult patients where time to epinephrine ≤ 5 minute of asystole or pulseless electrical activity.*

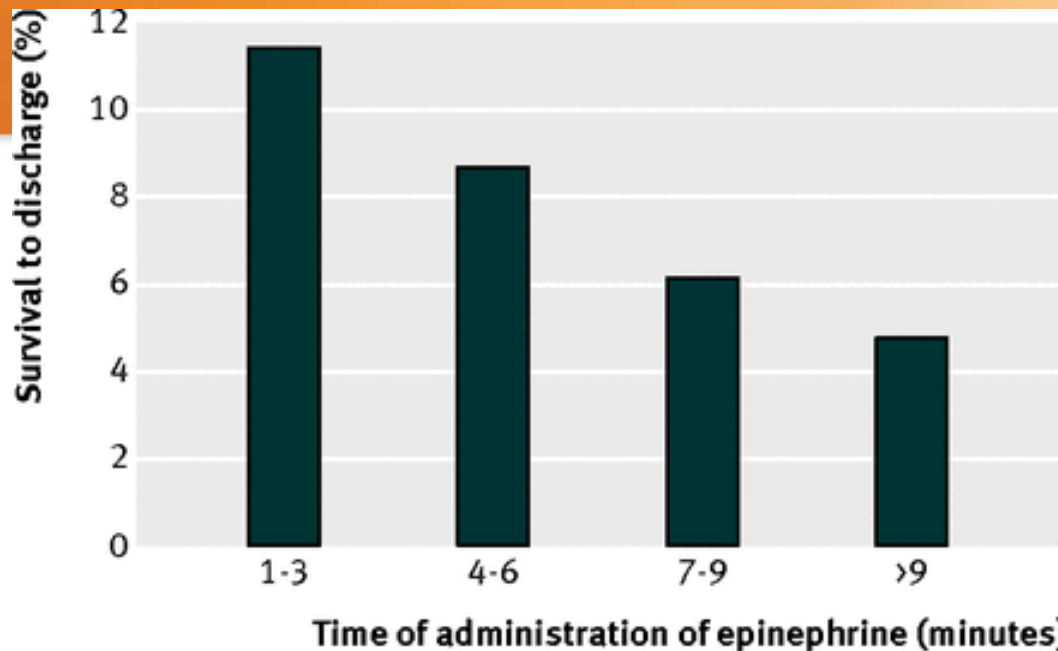
Guideline Recommendation:

Class IIb

The American Heart Association Cardiopulmonary Resuscitation guidelines 2010 recommend administering a 1 mg dose of epinephrine IV/IO every 3-5 minutes during adult cardiac arrest as initial treatment in patients with asystole or pulseless electrical activity (PEA).⁷

Rationale:

Epinephrine is a potent vasoconstrictor, inotrope and coronary vasodilator drug and therefore may improve coronary and cerebral perfusion pressure,⁸ but could potentially increase myocardial oxygen demand and worsen myocardial dysfunction.⁹ Although epinephrine is widely used in resuscitation practice, randomized trials in patients with out-of-hospital cardiac arrest have only showed higher rates of ROSC with the use of epinephrine, but no improvement in survival or neurologic outcome. [10,11](#)



Timing (minutes)	No (%) who survived to hospital discharge	Odds ratio (95% CI)		P value
		Unadjusted	Adjusted*	
1-3	1626 (12)	Reference	Reference	—
4-6	667 (10)	1.23 (1.12 to 1.35)	0.91 (0.82 to 1.00)	0.055
7-9	180 (8)	1.54 (1.32 to 1.81)	0.74 (0.63 to 0.88)	<0.001
>9	130 (7)	1.77 (1.47 to 2.13)	0.63 (0.52 to 0.76)	<0.001

7. Neumar RW, Otto CW, Link MS, et al. Part 8: Adult Advanced Cardiovascular Life Support: 2010 American Heart Association Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiovascular Care. *Circulation* 2010;122:S729-S67.
8. Michael JR, Guerci AD, Koehler RC, et al. Mechanisms by which epinephrine augments cerebral and myocardial perfusion during cardiopulmonary resuscitation in dogs. *Circulation* 1984;69:822-35.
9. Ditchey RV, Lindenfeld J. Failure of epinephrine to improve the balance between myocardial oxygen supply and demand during closed-chest resuscitation in dogs. *Circulation* 1988;78:382-9.
10. Jacobs IG, Finn JC, Jelinek GA, Oxer HF, Thompson PL. Effect of adrenaline on survival in out-of-hospital cardiac arrest: A randomised double-blind placebo-controlled trial. *Resuscitation* 2011;82:1138-43.
11. Olasveengen TM, Sunde K, Brunborg C, Thowsen J, Steen PA, Wik L. Intravenous drug administration during out-of-hospital cardiac arrest: a randomized trial. *Jama* 2009;302:2222-9.
12. Donnino MW, Rittenberger JC, Gaieski D, et al. The development and implementation of cardiac arrest centers. *Resuscitation* 2011;82:974-8.

Adult Measures

Adult population is age ≥ 18 years

Measure: Percent Pulseless Cardiac events monitored or witnessed: *Percent of pulseless cardiac patient events were monitored or witnessed*

NO CHANGE FOR 2017



Measure: Percent Pulseless Cardiac events monitored or witnessed: *Percent of pulseless cardiac patient events were monitored or witnessed*

Events occurring outside of ICU in monitored and/or witnessed locations

Guideline Recognition:

The foundation of successful ACLS is high quality CPR, and for VF/pulseless VT, attempted defibrillation within minutes of collapse. For victims of witnessed VF arrest, early CPR and rapid defibrillation can significantly increase the chance to survival to hospital discharge.

Rationale:

Brady, et. al. demonstrated that "patients who are witnessed and/or monitored at the time of cardiac arrest demonstrate a significantly higher rate of survival to hospital discharge compared to those patients who are neither monitored or witnessed. Monitored and/or witnessed cardiac arrest patients were also more likely to be discharged with favourable neurologic outcome. Cardiac monitoring offers no additional outcome benefit over direct observation of patients suffering in-hospital cardiac arrest." (1)

1. WJ Brady, Kelly K Gurka , Beth Mehring , Mary Ann Peberdy , Robert E O'Connor In-Hospital Cardiac Arrest: Impact of Monitoring and Witnessed Event on Patient Survival and Neurologic Status at Hospital Discharge. Resuscitation 82 (2011) 845-852
2. Yap HY, LiTS, Tan KS, et al. Characteristics, management process, and outcome of patients suffering in-hospital cardiopulmonary arrests in a teaching hospital in Hong Kong. Hong Kong Med J 2007;13:258-65
3. Galhotra S, DeVita MA, Simmons RL, Schmid A et al. Impact of patient monitoring on the diurnal pattern of medical emergency team activation. Critical Care Medicine 34 (2006) 1700-6
4. Herlitz J, Aune S, Bång A, et al. Very high survival among patients defibrillated at an early stage after in-hospital ventricular fibrillation on wards with and without monitoring facilities. Resuscitation 2005;66:159-66.
5. Herlitz J, Bång A, Aune S, Ekström L, Lundström G, Holmberg S Characteristics and outcome among patients suffering in-hospital cardiac arrest in monitored and non-monitored areas. Resuscitation 48 (2001) 125-35
6. Watkinson PJ, Barber VS, Price JD, Hann A, Tarassenko L, Young JD A randomised controlled trial of the effect of continuous electronic physiological monitoring on the adverse event rate in high risk medical and surgical patients. Anesthesia 61 (2006) 1031-9
7. Skrifvars MB, Castrén M, Aune S, Thoren AB, Nurmi J, Herlitz J. Variability in survival after in-hospital cardiac arrest depending on the hospital level of care. Resuscitation. 2007;73:73–81.
8. Peter G. Brindley, Darren M. Markland, Irvin Mayers, Demetrios J. Kutsogiannis Predictors of survival following in-hospital adult cardiopulmonary resuscitation. Canadian Medical Association 167 (2002) 343-8

Measure: Confirmation of airway device placement in trachea: *Percent of CPA events in adult patients who had confirmation of airway device placement in trachea.*

CHANGES for 2017

- Name and data element to support this measure were updated to more accurately reflect current terminology.
- Measure updated to include patients who had a device placed prior to the arrest event.
- Updates were made to the data element: “Interventions in place PRIOR” to capture ET and TT airway devices.



Measure: Confirmation of airway device placement in trachea: *Percent of CPA events in adult patients who had confirmation of airway device placement in trachea.*

Guideline Recommendation:

Continuous waveform capnography is recommended in addition to clinical assessment as the most reliable method of confirming and monitoring correct placement of an endotracheal tube (Class I, LOE A). Given the simplicity of colorimetric and nonwaveform exhaled CO₂ detectors and esophageal detector devices (EDD), these methods can be used in addition to clinical assessment as the initial method for confirming correct tube placement in a patient in cardiac arrest when waveform capnography is not available (Class IIa, LOE B).

Rationale

Guidelines recommend that providers always use both clinical assessment and devices to confirm endotracheal tube location immediately after placement and throughout the resuscitation. Two prior studies demonstrated waveform capnography achieved 100% sensitivity and specificity for the identification of correct endotracheal tube placement in victims of cardiac arrest.¹⁻² However, 3 studies demonstrated a 64% sensitivity and 100% specificity when waveform capnography was used for victims with prolonged resuscitation and transport times.³⁻⁵ On the basis of these studies, continuous waveform capnography is considered the most reliable approach to confirm and monitor correct endotracheal tube placement.

1. Silvestri S, Ralls GA, Krauss B, Thundiyil J, Rothrock SG, Senn A, Carter E, Falk J. The effectiveness of out-of-hospital use of continuous end-tidal carbon dioxide monitoring on the rate of unrecognized misplaced intubation within a regional emergency medical services system. *Ann Emerg Med.* 2005;45:497–503.
2. Grmec S. Comparison of three different methods to confirm tracheal tube placement in emergency intubation. *Intensive Care Med.* 2002;28:701–704.
3. Takeda T, Tanigawa K, Tanaka H, Hayashi Y, Goto E, Tanaka K. The assessment of three methods to verify tracheal tube placement in the emergency setting. *Resuscitation.* 2003;56:153–157.
4. Tanigawa K, Takeda T, Goto E, Tanaka K. The efficacy of esophageal detector devices in verifying tracheal tube placement: a randomized cross-over study of out-of-hospital cardiac arrest patients. *Anesth Analg.* 2001;92:375–378.
5. Tanigawa K, Takeda T, Goto E, Tanaka K. Accuracy and reliability of the self-inflating bulb to verify tracheal intubation in out-of-hospital cardiac arrest patients. *Anesthesiology.* 2000;93:1432–1436.
6. Li J. Capnography alone is imperfect for endotracheal tube placement confirmation during emergency intubation. *J Emerg Med.* 2001;20:223–229.
7. Anton WR, Gordon RW, Jordan TM, Posner KL, Cheney FW. A disposable end-tidal CO₂ detector to verify endotracheal intubation. *Ann Emerg Med.* 1991;20:271–275.
8. Bhende MS, Thompson AE. Evaluation of an end-tidal CO₂ detector during pediatric cardiopulmonary resuscitation. *Pediatrics.* 1995;95:395–399.
9. MacLeod BA, Heller MB, Gerard J, Yealy DM, Menegazzi JJ. Verification of endotracheal tube placement with colorimetric end-tidal CO₂ detection. *Ann Emerg Med.* 1991;20:267–270.
10. Ornato JP, Shipley JB, Racht EM, Slovis CM, Wrenn KD, Pepe PE, Almeida SL, Ginger VF, Fotre TV. Multicenter study of a portable, hand-size, colorimetric end-tidal carbon dioxide detection device. *Ann Emerg Med.* 1992;21:518–523.
11. Varon AJ, Morrina J, Civetta JM. Clinical utility of a colorimetric end-tidal CO₂ detector in cardiopulmonary resuscitation and emergency intubation. *J Clin Monit.* 1991;7:289–293.
12. Bozeman WP, Hexter D, Liang HK, Kelen GD. Esophageal detector device versus detection of end-tidal carbon dioxide level in emergency intubation. *Ann Emerg Med.* 1996;27:595–599.
13. Pelucio M, Halligan L, Dhindsa H. Out-of-hospital experience with the syringe esophageal detector device. *Acad Emerg Med.* 1997;4:563–568.

Adult Population: Patient Management Tool (PMT) and Recognition Program Updates

Christina Sterzing, RHIA

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Recognition Program and PMT Updates

- Locate where to find the recognition measures and new logic and rationale statements for 2017
- Understand the CRF changes to support the measure changes.
- Understand recognition program options for the “Confirmation of Airway Device...” measure
- Demonstrate the impact to data entry to support the “Confirmation of Airway Device...” measure
- Understand May 20th updates
- Communicate non-recognition measure changes and upcoming webinar information

Recognition Measures Location

Measures are grouped by population.

REPORT 1	Select Measure
Recognition Measures:	Adult **GWTGRecogGroup (Adult)** CPA: Time to first shock <= 2 min for VF/pulseless VT first documented rhythm CPA: Time to IV/IO epinephrine <= 5 minutes for asystole or Pulseless Electrical Activity (PEA)
CPA & PCAC Measures:	CPA: Percent Pulseless Cardiac events monitored or witnessed CPA: Confirmation of airway device placement in trachea
ARC Measures:	Pediatric **GWTGRecogGroup (Pediatric)** CPA: Confirmation of airway device placement in trachea CPA: Time to first chest compressions <= 1 min CPA: Time to IV/IO Epinephrine <= 5 min for asystole or pulseless electrical activity
MET Measures:	CPA: Percent pulseless cardiac events occurring in an ICU setting versus a ward setting CPA: Percent of cardiac pulseless events in specific event location
Cross Form and Admission & Discharge Measures:	Neonate/Infant **GWTGRecogGroup (Neonate/Infant)** CPA: Confirmation of airway device placement in trachea CPA: Time to first chest compressions <= 1 min CPA: Time to IV/IO Epinephrine <= 5 min for asystole or pulseless electrical activity
Historic Measures:	CPA: Percent pulseless cardiac events occurring in an ICU setting versus a ward setting CPA: Percent of cardiac pulseless events in specific event location
Format:	Newly Born **GWTGRecogGroup (Newly Born)** CPA: Time to Positive Pressure Ventilation < 1 Min from CPA Recognition CPA: Advanced airway placed prior to the initiation of chest compressions CPA: Pulse oximetry in place prior to the initiation of chest compressions CPA: Confirmation of airway device placement in trachea
Compare to: (ctrl-click to select multiple)	

Recognition Measures Location (cont.)

New Logic and Rationale for each recognition measure

Configurable Measure Reports

Generate Report

TIME PERIOD

Interval: Monthly Aggregate

From: 2017 Jan

To: 2017 Mar

Resuscitation Measure Descriptions
Resuscitation Measure Descriptions - Historic
Get With The Guidelines®-RESUSCITATION
Benchmarking Group Assignment Guide

CPA CRF Updates

CRF updates to support the “Confirmation of Airway Device Placement in Trachea” Recognition Measure:

- The measure was also updated to include patients who had a device placed prior to the arrest event, as measuring airway device confirmation is important in this group as well.
- Updates were made to the data element: “Section 2.3 Interventions in place PRIOR” to capture Endotracheal Tube and Tracheostomy Tube airway devices. If selected, “method of confirmation” question in Section 4.3 is required.

Section 2.3 Invasive Assisted Ventilation Requires a Confirmation of Device

If Endotracheal Tube or Tracheostomy Tube is checked off in section 2.3

2.3 INTERVENTIONS ALREADY IN PLACE

Interventions ALREADY IN PLACE when need for chest compressions and/or defibrillation was first recognized (check all that apply)

PART A: None

- Non-invasive assisted ventilation
 - Bag-Valve-Mask
 - Mask and/or Nasal CPAP
 - Mouth-to-Barrier Device
 - Mouth-to-Mouth
 - Laryngeal Mask Airway (LMA)
 - Other Non-Invasive Ventilation: (specify)
- Invasive assisted ventilation, via an:
 - Endotracheal Tube (ET)
 - Tracheostomy Tube
 - Intra-arterial catheter
 - Conscious/procedural sedation
 - End Tidal CO₂ (ETCO₂) Monitoring
 - Supplemental oxygen (cannula, mask, hood, or tent)

[+]

Go to section 4.3 and select the method of confirmation used

CPA 4.3 VENTILATION

Method(s) of confirmation used to ensure Endotracheal Tube (ET) or Tracheostomy Tube placement in trachea (check all that apply):

- Waveform capnography (waveform ETCO₂)
- Capnometry (numeric ETCO₂)
- Exhaled CO₂ colorimetric monitor (ETCO₂ by color change)
- Esophageal detection devices
- Revisualization with direct laryngoscopy
- None of the above
- Not Documented

Additional Information for the “Correct Airway Device Placement” Measure

- Each population has a “Confirmation of airway device placement in trachea” that replaced the “Device confirmation of correct endotracheal placement” measure.
- The change to this measure includes adding mechanical method of confirmation for all airway devices in place, placed or replaced during the event.
- The 2016 and prior the measure only required the confirmation of placement for airway devices placed or replaced during the event.
- To assist in the transition, please check nurse, respiratory therapist and physician notes for documentation of a method of confirmation.

Confirmation of airway device placement in trachea

Measure: Recognition Impact

- 2017 Recognition is a transition year.
 - With automated awards, AHA will use whichever value is higher.
 - By 2018, sites will need to be fully transitioned to the new measure. The transition period is for the airway device confirmation measures only.
- Hospitals will be able to qualify for recognition in all patient populations by using the old or new airway device confirmation measure in 2017.
- Reminder to review the Recognition Guide which is provided as a handout on this webinar.

Checking the 2016 Measure in Historic

REPORT 1

Recognition Measures:	Select Measure	Select
CPA & PCAC Measures:	Select Measure	
ARC Measures:	Select Measure	
MET Measures:	Select Measure	
Cross Form and Admission & Discharge Measures:	Select Measure	
Historic Measures:	Select Measure	
Format:		
	My Hospital	
	Academic Hospitals	

Select Measure

Recognition Measures

GWTGRecogGroup - Historic

CPA: Percent pulseless cardiac events monitored or witnessed - Historic

CPA: Time to first chest compressions <= 1 min in adult and pediatric patients, and newborn/neonates >= 10 min old - Historic

CPA: Time to first chest compressions <= 2 min in newborn/neonate < 10 min old - Historic

CPA: Device confirmation of correct endotracheal tube placement - Historic

CPA: Time to invasive airway <= 2 min in newborn/neonates - Historic

Quality Measures

FILTER OPTIONS HIDE

Note: "Compare selections" only apply to the "My Hospital" comparison group.

	<input type="checkbox"/> Include Only Complete Records
Patient Population	Adult Pediatric Neonate
	<input type="checkbox"/> Compare selections (ctrl-click to select multiple)

Confirmation of Airway Placement: Impact to data entry

- This change impacts to the CRF impacts all records with a core date on or after January 1, 2017.
 - Note: You will still need to enter a method of confirmation if an Endotracheal Tube or Tracheostomy Tube was placed or replaced during the event (this was in place prior to 2017).
- Next slides reviews how to ensure proper data entry

Review patient records for accurate data entry

The easiest way to review your patient records from Jan. 1, 2017 to present is to run the “Confirmation of airway device...” Recognition Measure report in Configurable Measures reports.

- Go to Configurable Measures Reports
- Dates: January 1, 2017 to present
- Report Format: Select Patient Records then use “Patient Records”



TIME PERIOD

Interval:	Monthly	<input type="checkbox"/> Aggregate
From:	2017	Jan
To:	2017	May

Date range begins with Jan. 1, 2017

REPORT 1

Recognition Measures:	CPA: Confirmation of airway device placement in trachea	▼
CPA & PCAC Measures:	Select Measure	▼
ARC Measures:	Select Measure	▼
MET Measures:	Select Measure	▼
Cross Form and Admission & Discharge Measures:	Select Measure	▼
Historic Measures:	Select Measure	▼
Format:	Patient Records	▼

Select "CPA: Confirmation of airway device..."

Format: Patient Records

Compare to: (ctrl-click to select multiple)	<ul style="list-style-type: none"> My Hospital Academic Hospitals All Hospitals All NY Hospitals Bed Size for CPA - 200-299 Beds Bed Size for MET - 0-299 Beds Children's Hospital Members Middle Atlantic Hospitals Newborn/neonate Levels - Level II Northeast Region Hospitals Pediatric Beds - < 100 Beds Pediatric only hospitals - No
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Review patient records for accurate data entry (cont.)

- Once the report generates in a new window, click on “Show Filters”.
- Under “CPA Endotracheal Tube”, select the “Checked” filter.
- Under “method of confirmation...”, select the blank filter. Don’t leave the filter blank, so you will need to select the filter that is blank.

Click on show filters

CPA Endotracheal Tube = checked

Method of confirmation = blank

Show filters This report shows all records. 8 of 8

Patient ID	Included in Results?	In Numerator?	Date/Time need for chest compressions FIRST recognized	Age at Event	Age units	Date of Birth	CPA Endotracheal Tube (ET)	CPA Tracheostomy Tube	ET/Tracheostomy Tube inserted/re-inserted	Method(s) of Confirmation, ET or Tracheostomy
	no filter ▼	no filter ▼			no filter ▼		Checked ▼	no filter ▼	no filter ▼	

Review patient records for accurate data entry (cont.)

- This is the list of patients that will require you to go back and enter a method of confirmation. You can export this list so you have the patient IDs to look up. Or you can click on the patient IDs in the list to edit the records.
- Go through steps 1-7 again for tracheostomy tube. For step 5, use “CPA Tracheostomy Tube” instead.

List of patients that need a method of confirmation entered

Click on patient ID to enter method of confirmation

Optional: export to excel

[Print](#) | [Export to Excel](#) | [Export to .csv](#)

Patient ID	Included in Results?	In Numerator?	Date/Time need for chest compressions FIRST recognized	Age at Event	Age units	Date of Birth	CPA Endotracheal Tube (ET)	CPA Tracheostomy Tube	ET/Tracheostomy Tube inserted/re-inserted	Method(s) of Confirmation, ET or Tracheostomy
stafftrainingmay9	no filter Included	no filter No	05/08/2017	67	no filter Years	01/01/1950	Checked Checked	no filter	no filter	

'Time to first shock' (Adult) Measure

Incorrect results will be fixed

Measures Tab Issue (all populations)

Confirmation of airway device placement in trachea, gives different results on the Measures Tab compared to Configurable Measures Report. Measures tab is calculating incorrectly, but configurable measures reports is correct.

'Time to Positive Pressure' (Newly born) Measure:

The date/time field calculations used in the Numerator logic for Newly Born Measure 'CPA: Time to Positive Pressure Ventilation < 1 Min from CPA Recognition' need to be flipped to subtract "Date/Time the need for chest compressions..." field from the other Date/Time fields.

Non-Recognition Measures Changes

- Due to population changes, the Quality, Reporting, and Descriptive Measures will need to be updated.
- Changes are coming later this year.

2017 Updates to Resuscitation Measures

Tanya Lane Truitt, RN MS

Senior Manager QSI Programs & Operations:
Resuscitation & HF
Get With The Guidelines®

Recognition Awards



The American Heart Association/American Stroke Association recognize this hospital for achieving 85% or higher compliance with all Get With The Guidelines®-Resuscitation Achievement Measures for one calendar quarter to improve quality of patient care and outcomes.



The American Heart Association/American Stroke Association recognize this hospital for achieving 85% or higher compliance with all Get With The Guidelines®-Resuscitation Achievement Measures for one calendar year to improve quality of patient care and outcomes.



The American Heart Association/American Stroke Association recognize this hospital for achieving 85% or higher compliance with all Get With The Guidelines®-Resuscitation Achievement Measures for two or more consecutive years to improve quality of patient care and outcomes.



GWTG-R 2017 Measures Webinar: Review of Pediatric, Neonatal and Newly Born

Monday May 22, 2017
11am – 12pm Central

REGISTER: <https://engage.vevent.com/rt/ahaevents~05222017>

Presenters: Vinay Nadkarni, MD
Elizabeth Foglia, MD
Christina Sterzing, RHIA

Join us for this important webinar introducing the updates made to the 2017 Get With The Guidelines-Resuscitation measures. This webinar is a pair to our overview measures webinar and provides a deep dive into the measures for pediatric, neonatal and our addition of a “newly born” patient category.



Contact Us to Learn More

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Thank you for your active participation
and contributions to GWTG-Resuscitation!



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