**Operator:**

It is now my pleasure to turn today’s program over to Liz Olson from the American Heart Association. Liz, the floor is yours.

**Liz Olson:**

Thank you so much. On behalf of the American Heart Association and Get With The Guidelines-Resuscitation, welcome to today’s webinar, Get With The Guidelines-Resuscitation 2017 Measures Webinar: Measures Change Overview. My name is Liz Olson, and I'm the Program Manager for Get With The Guidelines-Resuscitation and Heart Failure. On today’s webinar, we're excited to introduce the updates made to the 2017 Get With The Guidelines-Resuscitation measures. The focus of this webinar is on changes in the patient management tool and a review of the science behind the measure changes for the adult and pediatric patient populations, including our addition of the newly born patient category. For in-depth review of pediatric, neonatal, and newly born measures, please also join us for our webinar on May 22nd. The session is designed to offer an opportunity for Q&A with our speakers, and we encourage your feedback and participation in this event. You can submit questions by using the “Q&A” button in the lower corner of your screen. A recording of today's webinar will be made available on the American Heart Association website, heart.org/quality.

It's my pleasure to now introduce our speakers for today. Dr. Steven Bradley is an associate cardiologist at the Minneapolis Heart Institute and the associate director of the Minneapolis Heart Institute Center for Healthcare Delivery Innovation. Dr. Bradley’s interests are focused on implementing novel approaches to care delivery that achieve optimal patient outcomes and experience at lower cost. Dr. Bradley previously served as the associate director of the VA National Clinical Assessment Reporting and Tracking Program, the national clinical quality program for VA cardiac catheterization laboratories. In this role, Dr. Bradley led the implementation of an automated system to capture patient reported health status measures for coronary artery disease and efforts to map cardiac catheterization laboratory processes associated with variation in cost. Dr. Bradley has led grant-funded research supported by VA Health Services Research and Development, the VA Quality Enhancement Research Initiative in the American Heart Association, and he was recently awarded the 2017 American College of Cardiology Douglas P. Zipes Distinguished Young Scientist Award. He has provided his expertise as a volunteer in the American Heart Association Get With The Guidelines program and continues as an active leader in the Get With The Guidelines program. In his current role as associate director of the MHIHDI, he seeks to address quality gaps and unnecessary variation in healthcare delivery, with patient-centered solutions.

Our next speaker, Dr. Nadkarni, will be joining us for comments and Q&A. Dr. Vinay Nadkarni is chair of the Get With The Guidelines-Resuscitation clinical workgroup and is endowed chair of Critical Care Medicine, director of the Center for Simulation, Advanced Education, and Innovation of Children’s Hospital, Philadelphia, and associate director of the Center for Resuscitation Science at the University of Pennsylvania, Perelman School of Medicine. He is an internationally recognized physician scientist with a longstanding commitment to the discovery, translation, and implementation of shock, trauma and resuscitation science. He was chairman of the national AHA Emergency Cardiovascular Committee from 2006 to 2010. With national colleagues, he formed a Scientific Advisory Board which founded and obtained funding for an AHA National Registry of CPR to collect, analyze, and publish national trends in the process and outcomes of in-hospital cardiac arrest. Dr. Nadkarni has authored more than 250 peer-reviewed manuscripts and 30 book chapters related to the practice of critical care and resuscitation science.

We'll also hear from Christina Sterzing, healthcare quality informatics analyst with the Quality and Health IT Team, here with the American Heart Association, and Tanya Lane Truitt, senior manager for QSI Programs and Operations, Resuscitation and Heart Failure, for Get With The Guidelines.

It’s now my pleasure to turn today's webinar over to our first speaker, Dr. Steven Bradley. Dr. Bradley, the floor is yours.

**Steven Bradley, MD:**
Thanks so much, Liz, for that introduction. Thank you to everyone who has joined the call, and appreciate you joining us today for the Get With The Guidelines-Resuscitation 2017 Measures webinar. I'm very excited to have the opportunity to speak with you about this topic, as the recognition measures are really central and core to the principles of the Get With The Guidelines program. Those principles are built with the focus on quality improvement, and the name Get With The Guidelines really captures the intent of the program. Get With The Guidelines seeks to achieve success in quality improvement by translating guidelines into clinical practice in the hospital setting. But to understand if you’re achieving the goal of translating guidelines in clinical practice, you need to measure the care you're providing. It’s a long-held axiom that you can't improve what you don't measure. To that end, the Get With The Guidelines program seeks to drive change by moving beyond simply collecting data and towards driving processes system improvements and how well we Get With The Guidelines. Increasingly, the Get With The Guidelines program is moving towards measuring compliance with guideline recommendations in real-time to provide timely feedback to hospitals who are working to provide better care. As we partner with hospitals and achieve success in the goal of getting with the guidelines, the AHA looks to celebrate these successes at the hospital, regional, and national level. This celebration of success also allows an opportunity for sharing of best practices and evaluation through analysis of successes to highlight what has worked and why, and what are the insights that can propel us forward as we consider future efforts. It is on these principles that the Get With The Guidelines-Resuscitation program seeks to move hospitals towards continuous quality improvement model for in-hospital cardiac arrest. Rather than simply collecting data on resuscitation care, the Get With The Guidelines-Resuscitation program captures and analyzes care and key metrics that matter to drive change and quality improvement. These measures include decreased time to defibrillation, decreased monitored or unwitnessed arrest, decreased time to chest compressions, and confirmation of correct endotracheal tube placement. Importantly, the Get With The Guidelines-Resuscitation program has taken the bold step of not only measuring processes of care, but the end outcome of in-hospital cardiac arrest survival to drive change and improvements. By measuring survival, Get With The Guidelines-Resuscitation acknowledges that many opportunities to achieve the best for our patients will come not only from individual process measures, but from the totality of care that can only be fully reflected in the patient’s outcome. We believe this focus on patient outcomes keeps us motivated to improve what really matters to the patient.

An important part of the quality improvement effort supported by the Get With The Guidelines program is to ensure that recognition measures accurately reflect the evolving knowledge about what is important in care delivery to achieve best patient outcomes. As new data and evidence are published, we want to be sure the Get With The Guidelines program reflects that evidence and supports hospitals getting with the latest guidelines to achieve the best outcomes for our patients. Accordingly, the Get With The Guidelines-Resuscitation achievement measures are continuously evaluated to ensure the measures reflect changes in clinical guidelines in newly published evidence. These measures are then revised and used to support Get With The Guidelines-Resuscitation recognition. Furthermore, the Get With The Guidelines-Resuscitation program uses this opportunity to make necessary updates to population groupings and definitions of patient populations so that recognition measures appropriately reflect the patients we care for and the opportunity to improve our care. For example, in 2017, the populations groupings were updated to add a category of newly born to distinguish these patients from neonates. Accordingly, populations in the Get With The Guidelines-Resuscitation program defined the adult population as those patients who are 18 years of age or older at the time of the event. The pediatric population is defined as patients less than 18 years of age and one year of age or older at the time of the event. The neonate/infant population is defined as patients who are at least 24 hours old but less than one year old. Previously, the neonate/infant population included birth to less than two years old. With this change, there is now a newly added population of newly born, defined as patients less than 24 hours old at the time of the event.

In light of these changes in population definitions, and recognition of the important and unique aspects of resuscitation for the pediatric, neonatal, and newly born population, I welcome you all to join us for an in-depth discussion of the pediatric, neonatal, and newly born measure changes upcoming on May 22nd. The link for registration is shown here, and the discussion will be led by the doctors you see below. You're likely to have questions that linger after today's webinar. We're committed to helping you answer those questions, but we also want to point you to a document that may be helpful in addressing your questions. The Get With The Guidelines-Resuscitation 2017 Recognition Measures Guide is located in the “Files” section of today’s webinar and provides granular details on the populations measured, the recognition program, data entry, and crosswalk details for each of the measures. We hope this will be a useful resource for you as you continue in the recognition program.

We'll now move on to review the crosswalk of measures and measure changes. Given that we'll offer an in-depth review of pediatric, neonatal, and newly born measure changes in a separate webinar, I would like to briefly whet your appetite for highlighting a few aspects of change on these measures and spend more time on the adult measures. In this table, we see the pediatric recognition measures as they were defined in the new measure and the changes of interest. Some of these changes reflect modifications to make measurement more accurate and appropriate -- for example, changes to more accurately reflect current terminology for the correct endotracheal tube placement. Other changes reflect promotion of a measure from quality achievement to formal status as a recognition measure, as is the case for timed epinephrine or promotion from reporting measure to achievement measure, as is the case for percent of cardiac events occurring in an ICU setting. Similar changes are noted for the neonate/infant population of recognition measures. And again, further detail will be provided in that additional webinar.

As the newly born population reflects an entirely new population or subgroup of patients for quality measurement, it was important to recognize that measures of importance may be different for this subgroup. Accordingly, you'll see the measures for newly born differ somewhat from those of the pediatric and neonate populations. To avoid duplication and stealing thunder from my colleagues, we'll present on these measures next week. I’ll stop there and again encourage you to join us next week for discussion of these measure changes in-depth.

I'll now move to the adult measures and spend more time reviewing these measures with you and how they change moving forward. For recognition, there are four adult process measures. These include time to first shock in less than or equal to two minutes for patients with a first documented rhythm of VF or pulseless VT, time to intravenous or interosseous epinephrine in less than or equal to five minutes for asystole or pulseless electrical activity, the percent of patients with cardiac events in monitored or witnessed settings, and confirmation of airway device placement in the trachea. Note there were no significant changes to the measures to time to defibrillation and arrest in a monitored or witnessed setting. Time to epinephrine was previously a measure of quality achievement, and this measure has been promoted to replace chime to chest compressions within one minute. As is sometimes the case with quality improvement measures, quality can achieve a point of asymptotic return, meaning that the opportunities to further improve on the measure are limited. This was the case for time to defibrillation, as the median and interquartile range of time to defibrillation was becoming zero minutes across our hospitals. It's hard to improve on time between arrest recognition and chest compressions when the vast, vast, vast majority of sites are receiving zero delay. Accordingly, this measure was sunset to allow emphasis on an area for greater opportunity as we seek to improve the care and outcomes of our patients. The other measure change was for confirmation of airway device placement to more accurately reflect current terminology and include patients with the device in place prior to the event, as confirming the tube has remained in place is important for this group.

I'll now spend time walking through the individual adult measures to review the definition, the guideline the measure is based on, and the rationale and evidence in support of the measure. The first measure for the adult population is time to first defibrillator shock in less than or equal to two minutes for patients with VF or pulseless VT as the first documented rhythm. This measure is unchanged for 2017. For each participating hospital, the time to defibrillator shock is less than or equal to two minutes as reported as the percent of events in adult patients with VF or pulseless VT as the first documented rhythm in whom time to first shock was within two minutes of event recognition. This measure is based on a Level 1 guideline recommendation, meaning the strongest level of possible evidence. This guideline notes that early defibrillation for cardiac arrest was adopted as one of the important links in the chain of survival concept to enhance resuscitation care. This Level 1 guideline recommends that defibrillation should be performed within two minutes of cardiac arrest due to VF or pulseless VT arrest. The rationale for this measure stems from recognition that the definitive treatment of cardiac arrest due to VF or pulseless VT is defibrillation. Importantly, the likelihood of successful defibrillation increases over time -- excuse me, decreases over time – and thus, there is a short window of opportunity for successful defibrillation before VF or VT can deteriorate into asystole. Furthermore, seminal observational studies for the Get With The Guidelines-Resuscitation program have demonstrated an important association between time to defibrillation and survival to discharge among patients with in-hospital VF or VT arrest. These papers are prime examples of how Get With The Guidelines-Resuscitation not only supports quality improvement, but supports the analytics to identify the key quality improvement targets moving forward.

This slide reviews the seminal work I was mentioning regarding the association between time to defibrillation of VT or VF arrest and patient survival that was led by Dr. Paul Chan. This study sought to understand the association between time to defibrillation and patient survival to hospital discharge among patients with in-hospital cardiac arrest and first recognized rhythm of VF or pulseless VT. In this figure, we see the proportion of patients who survived to discharge but a time from arrest recognition to first defibrillation attempt. Patients with a rapid defibrillation within one or two minutes of arrest recognition have a survival that approaches 40 percent. But as the time to defibrillation increases beyond two minutes, survival begins to fall dramatically to less than 25 percent. This is further demonstrated in the table below, the figure that compares the odds of survival by minutes to defibrillation. Compared with patients who are deliberated within the first minute, the adjusted odds of survival were similar for patients deliberated by minute two. However, the adjusted odds of survival decreased significantly as the time interval to first defibrillation continues to increase.

This slide provides the specific references that support both a Level 1 guideline recommendation and the Get With The Guidelines-Resuscitation recognition measure, with particular emphasis on the work referenced by Dr. Chan in reference number 3.

The second measure for the adult population is time to intravenous or interosseous epinephrine less than or equal to five minutes for patients with asystole or pulseless electrical activity as the first documented rhythm. For each participating hospital, the measure is reported as the percent of events in adult patients with asystole or PEA as the first documented rhythm in whom time to epinephrine was within five minutes of event recognition. This was previously a quality measure and now has been promoted to an achievement measure. Further, as previously discussed, this measure has replaced the time to chest compression achievement measure. The time to epinephrine within five minutes for PEA or asystolic arrest is based on a Level 2B guideline recommendation from the American Heart Association Cardiopulmonary Resuscitation Guidelines, that recommends a one milligram dose of epinephrine every three to five minutes during adult cardiac arrest as the initial treatment in patients with asystole or pulseless electrical activity. The rationale for this guideline stems from recognition that epinephrine is a potent vasoconstrictor, inotrope, and coronary vasodilator drug and therefore may improve coronary and cerebral perfusion pressure. This potential benefit is balanced against concern for the potential to increase myocardial oxygen demand and worsen myocardial dysfunction. Although epinephrine is widely used in resuscitation practice, randomized trials in patients with out-of-hospital cardiac arrest have failed to demonstrate improvements beyond return of spontaneous circulation. However, in another seminal study from Get With The Guidelines-Resuscitation, Dr. Mike Donnino demonstrated an important association between time to epinephrine and survival to discharge among be patients with in-hospital PEA and asystolic arrest. This paper is yet another example of how Get With The Guidelines-Resuscitation not only supports quality improvement, but supports the analytics to identify the key quality improvement targets.

This slide reviews the seminal work I was mentioning led by Dr. Donnino. This study sought to understand the association between time to epinephrine and patient survival to hospital discharge among patients with in-hospital cardiac arrest and first recognized rhythm of PEA or pulseless asystole. In this figure, we see the proportion of patients who survived to discharge by the time from arrest recognition to first epinephrine. Patients with early administration of epinephrine have a survival that approaches 12 percent. But as the time to epinephrine increases, survival begins to fall to less than eight percent. This is further demonstrated in the table below the figure that compares the odds of survival by minutes to epinephrine. Compared with patients who were defibrillated -- excuse me, received epinephrine within the first three minutes, the adjusted odds of survival was significantly decreased as the time interval to first epinephrine continues to increase.

This slide provides the specific references that support both the guideline recommendation and the Get With The Guidelines-Resuscitation recognition measure, with particular emphasis on the work of Dr. Donnino referenced in reference number 12.

The third measure for the adult population is the percent pulseless cardiac arrest events monitored or witnessed. For each participating hospital, the measure is reported as the percent of pulseless cardiac arrest patient events that were monitored or witnessed. This measure is unchanged from 2017. The percent pulseless cardiac events monitored or witnessed stems from the recognition that a foundational aspect of successful advanced cardiac life support is high quality CPR, and for VF and pulseless VT, attempted defibrillation as soon as possible after collapse. If an arrest is not recognized due to lack of monitoring, or unwitnessed, the opportunity to provide these therapies in a timely manner is significantly impacted. The rationale for this guideline stems from recognition 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 nor witnessed. In addition, monitored and/or witnessed cardiac arrest patients were also more likely to be discharged with a favorable neurologic outcome. The references in support of this recognition measure are provided here.

The last measure for the adult population is the confirmation of airway device placement in the trachea. For each participating hospital, this measure is reported as the percent of cardiopulmonary arrest events in adult patients that had confirmation of airway device placement in the trachea. Changes to this measure include modifications to the data elements to more accurately reflect current terminology, and the measure and data elements were updated to include patients who had the device placed prior to arrest. The measures for confirmation of airway device placement is based on Level 1 and 2A guideline recommendations. These guidelines recommend continuous waveform capnography in addition to clinical assessment as the most reliable method of confirming and monitoring correct placement of an endotracheal tube. When waveform capnography is not available, the guideline recommends use of colorimetric and nonwaveform exhaled CO2 detectors and esophageal detector devices in addition to clinical assessment for confirmation of correct tube placement. The rationale for this guideline stems from prior studies that have demonstrated that waveform capnography has 100 percent sensitivity and specificity for the identification of correct endotracheal tube placement in cardiac arrest victims. It is the high degree of accuracy in the identification of correct placement of the endotracheal tube that supports this recognition measure in the Get With The Guidelines-Resuscitation program.

The following list summarizes the extensive data in support of waveform capnography and other modalities for confirmation of correct endotracheal tube placement in the trachea.

At this point, I'll turn the presentation over to Christina Sterzing, who will review the Patient Management Tool report and data element changes as they relate to these recognition measures. Christina, I'm passing over control to you now.

**Christina Sterzing:**

Great. Thanks so much. Hi, everyone. So I'm going to review the recognition program and PMT updates, as Dr. Steven Bradley mentioned. And what I'm going to cover is where you'll find the recognition measures, and we also have new logic and rationale statements for the 2017 recognition measures. And I'll review the CRF changes which support the measure changes. I'll also cover the recognition program options for the confirmation of airway device measure, as well as demonstrate the impact to data entry to support the confirmation of airway device measure. We are having a couple May 20th updates, so I'll cover those. And then I will also discuss the non-recognition measure changes and upcoming webinar information.

On this slide here, you'll see the new screen shot for finding your adult measures. So on the configurable measure report screen, when you're looking at your dropdowns, you'll select the dropdown, and then you'll see that there's an adult, pediatric, neonate and infant, and newly born section. Under each section will be the corresponding measures as well as a measure bundle. So if you selected adult, you would see all the adult measures there, and then you can select each individual measure underneath adult. And as I mentioned before, we have logic and rationale statements for each recognition measure. This is a brand-new feature in the PMT. So to find that, you will click on the “Resuscitation Measure Descriptions” link on the configurable measure reports page, and that will take you to the new logic and rationale statements.

For the CRF updates, we have -- mainly the changes that were made to the CPA CRF were to support the confirmation of airway device placement in trachea recognition measure. And just as a note, 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 in section 2.3, interventions in place prior to the event. So if you capture either endotracheal tube, or tracheostomy tube, you will need to indicate a method of confirmation in section 4.3. If you do not select a method of confirmation, you will get an error message as a reminder.

So, this is a screen shot of what I was just talking about under section 2.3. If you select either endotracheal tube or tracheostomy tube in section 2.3. Then look at section 4.3 to indicate your method of confirmation. And as I mentioned, you will get an error message if you don't indicate that, just as a reminder, because this is part of the new measure criteria. And also, you may remember that in section 4.3 you can also select for during the event whether an endotracheal tube or tracheostomy tube was inserted or reinserted during the event. So you will still need to indicate your method of confirmation. Nothing has changed there.

I wanted to cover a little bit more additional information regarding the correct airway device placement measure because this is changing some of your data entry. So we just want to make sure that it's clear to everyone and that you're able to successfully abstract for this measure. So even though we are talking about the adult measures today, and in the next webinar we'll cover other populations, I did want to note that each population has this measure, and the change to this measure includes adding a mechanical method of confirmation, for all airway devices in place, placed or replaced during the event. The 2016 measure only required confirmation of placement for airway devices placed or replaced during the event. I know we have said this several times, but we just are really trying to drive this in because it is the change in the data entry that could impact that process. So to assist in your transition, please check your nurse, respiratory therapist, and physician notes for documentation of this method of confirmation.

Because of this change, we are allowing for the recognition program to serve as a transition year in the 2017 recognition program. So with automated awards, AHA will use whichever value is higher for the confirmation of airway device placement in trachea measure. This is the only measure where we're allowing the transition period, so make sure that there's no confusion there. It's just for the confirmation of airway device placement in trachea measure that we're allowing for transition, and AHA will use the value that's higher in those measures. But by 2018, sites will need to be fully transitioned to this new measure. And again, the transition period is for the airway device confirmation measure 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. And this is a reminder to review the Recognition Guide, which is provided as a handout on this webinar, and it also went out via email a few weeks ago.

For this next slide, what I'm showing here is where to locate the 2016 confirmation of airway device measure. The name was slightly changed to device confirmation of endotracheal tube placement. If you wanted to review your records from using the 2016 logic, you would go to the historic section, click on the dropdown, select “device confirmation of correct endotracheal tube placement,” and then you will be able to select in the filter options the population that you are reviewing.

So with these changes, there is an impact to data entry. And what I'm covering here is how this change impacts your records with a core date on or after January 1st. So as I mentioned before, you will still need to enter a method of confirmation if an endotracheal tube or tracheostomy tube was placed or replaced during the event. So that's just the reminder. But what I'm covering here is how you want to review your records for the ET or trach tube placed prior to the event. So the easiest way to review all of your records from January 1, 2017, is to run a confirmation of airway device recognition measure report in the configurable measure reports. So to do this, you'll go into “Configurable Measure Reports,” and then you'll set your dates from January 1, 2017, to the present date. So that’s whatever date you're running this report. Just make sure you set it for a beginning date of January 1. And then make sure you switch your report format to the patient records format. Here's a screen shot of what I just discussed. So your date range begins with January, 2017. Select, under recognition measure, the CPA confirmation of airway device placement in trachea. And one thing to note is, if you are applying for recognition or doing quality improvement for more than one population, you will need to do this for each population. So this example here is for adult records. But if you were doing adult and pediatric, you would first need to do adult and then follow the same steps but select the pediatric report from the dropdown. Then select your format as “patient records.” Then once your report generates in a new window, you’ll click on “show filters,” and then you'll adjust some filters here.

So let’s just go to the next slide here, where I’ll show you what that looks like. This is a screen shot of, once the report has generated, you'll click on “show filters,” highlighted here in yellow. And then, under the CPA endotracheal tube column, you'll change that filter to “checked.” And then, under the method of confirmation column, you'll change your filter to the “blank” option. So what's confusing about this is that I'm not saying leave this blank. I'm saying change it to the “blank” option. So when you click on the dropdown, you'll see there's a “blank” option. And again, all of this is referenced in the handout that you have. So I know it's hard to keep track of these steps on a webinar. I just wanted to show you the screen shots there. But you do have this as a reference in your Recognition Guide so that you can have that as a takeaway after this call. And of course, anyone in the field would be able to assist you with this, as well as the quintiles help desk, which will reference contact information at the end.

So, once you've done all of these steps, you'll have your list of patients that will require you to go back and enter a method of confirmation. You can either export this list or click on the patient ID within the report to update that record immediately. So on the upper right-hand corner, you'll have an option to export to Excel, to save that list for later, or, on the left, you can click on the patient ID, which will take you to the record to update immediately.

Next, I'm going to discuss the May 20th corrections. So for the time to first shock adult measure, there are some incorrect results, and these will be fixed on May 20th. And then another fix that will take place is that we have some measures that are calculating differently on the “measures” tab. So this is on the “inform measure” tab, when you get results for an individual record. There are some discrepancies there, so that will be fixed on May 20th. And we also have a fix to the newly born measures, so by the time we have the newly born webinar on May 22nd, this will be fixed. This is with regard to the time to positive pressure ventilation measure.

And then, lastly, I wanted to discuss the non-recognition measure changes. Those will need to be updated later this year. Because of the population changes, they have impacts to potentially all the measures, so we will be communicating that date, and those changes will be coming later this year. And I will pass this to Tanya Truitt.

**Tanya Lane Truitt:**
All right. So what we are going to do is, before we go into actually answering questions and do the question and answer section, I want to remind you a little bit about how recognition works. And it may actually answer some of the questions that are being asked in the question and answer section. So just a reminder, we have a participating award, which is literally just putting in data, 20 patients, regardless of the type of events or type of patients, as participating. The first step. Second one is bronze. Bronze, as with all of our other ones, the three recognition measures, is 85 percent compliance of the recognition measures themselves for a person time period. Bronze is for one quarter. But the catch for bronze is that you have to have 20 patients for bronze. So unless you have 20 cardiac arrests a month, then you're probably not going to qualify for bronze. You're just going to skip over it and go straight to silver, which is one calendar year. So one calendar year, 80 percent compliance on a patient population. Now, the rule is that you have to have at least one patient in each denominator of each measure. But it doesn't matter how many patients, as long as you're entering all of your events for that calendar year. Silver is one calendar year, gold is two calendar years, and then every consecutive years after that. So remember, it’s 85 percent compliance.

Okay. So, that kind of gives you some ideas. Oh, I'm sorry. The other question that was asked -- let me go ahead and answer one of the questions asked – is, can you get awards in all patient populations? And yes, you can. So, if you have a hospital in which you treat adult patients, you have a labor and delivery unit, and you have neonatal patients, then you could get an adult recognition measure, and you can also get a neonatal/infant recognition measure, and you can also get a recognition in newly born, our newest category. So that leads me just into the reminder. Please, if you have interest in the pediatric, neonate/infant, or newly born patient populations, please attend our webinar. It's next Monday, and you can get the registration information here. And finally, before we begin the question and answer section, Heidi, will you please remind everybody how to ask questions?

**Operator:**

As a reminder, to ask a question via the web, click the “Q&A” button on the lower left-hand corner of your screen, type your question in the open area, and click the “Submit” button.

**Tanya Lane Truitt:**

Okay. We are getting a bunch of questions in. So what I'm going to do is read out some questions, and we'll see if we can get them answered for you. So the first question is probably the most common that we have being asked online right now and in the past. So if we have -- if a patient has an endotracheal tube that is in place prior to the code, then how do you do confirmation? Do you document confirmation of the endotracheal tube at the time of the placement or at the time of the code? And basically, go kind of back through that. So, Dr. Bradley, can you kind of help go back through that a little bit and explain why we're doing continuous monitoring of endotracheal tube placement or --

**Steven Bradley, MD:**Absolutely. So, I think you're seeing the question -- I think I'm seeing the question, so 17 there. The intent is, if someone has an endotracheal tube in place and then has a cardiac arrest, is to ensure that displacement or dislodging of the endotracheal tube isn't part and parcel of that cardiac arrest. So there should be essentially reconfirmation of appropriate placement of that endotracheal tube at the time of the code. So the abstracting confirmation of endotracheal tube placement would be at that time of the code, not the time it is originally placed, as the intent is to ensure that there is quality assessment of the placement of that tube at the time of the resuscitation event. I hope that clarifies that question.

**Tanya Lane Truitt:**

Great. Thank you. The next question on the list is for bronze, and I'll answer this one. It says -- I said there had to be at least 20 cardiac arrests within that database during that quarter. So bronze is a quarter, so at least 20 events during that quarter. And I'm -- did I say month? I might have said month, but if I did, I apologize for confusing everybody. But it is for a quarter. So you have to have at least 20 during that quarter. And then all the rest of them are just that you have to enter all your events for the entire calendar year, regardless of how many events that might be.

**Steven Bradley, MD:**Tanya, I was wondering. When you say 20, do you mean 20 -- let's say you're doing adults, peds, and infants. Do you have to have 20 overall, or do you have to have 20 in each category?

**Tanya Lane Truitt:**

In each patient category. Thank you for the clarification. In each patient category. Let's see. So can either -- Dr. Nadkarni, can you clarify why there's a metric for confirming airway placements and why we're using mechanical confirmation of endotracheal tube placement and like auscultation doesn't count?

**Steven Bradley, MD:**I think I see that question. The question is: Auscultation, acceptable method? And I think what the intent is to say is that techniques such as auscultation should be used, but they should be even further validated with either continuous wave or other methods of device confirmation, so colorimetric change or nonwaveform capnography. And the intent being that those are valid -- or they have higher sensitivity and specificity than just auscultation alone. So yes, you should continue to auscultate, but it should not be the only method, and this recognition measure is to recognize those facilities that, on a regular basis, use those other modalities for confirming device -- endotracheal tube correct placement.

**Tanya Lane Truitt:**

So, we got another question asking us to please clarify one more time about the placement of endotracheal tubes during the event. Can you go through it one more time for us?

**Steven Bradley, MD:**

Sure. So looking through the questions, I think it's probably the most common question. I think I see the question, can the speaker state that one more time? Confirmation of placement for the current arrest and not when the intubation occurred prior to the arrest? That's correct. So the intent is to confirm placement of the endotracheal tube at the time of the arrest. Confirmation of the tube when it was placed a week ago doesn't count. The concern is that if a patient arrests, it could be because the endotracheal tube is now not in the correct position. So at the time of the cardiac arrest event, that endotracheal tube placement should be confirmed with either continuous waveform or nonwaveform or colorimetric means.

**Vinay Nadkarni, MD:**

Steve, this is Vinay. And the reason for that is you agree that clinically, for the clinical management of the patient, of course, it should be confirmed both by listening to the chest, but also by end tidal CO2 confirmation, both at the time of the original intubation and the time of cardiac arrest. But for the Get With The Guidelines-Resuscitation database, we're most – I’m concerned that someone might forget to reconfirm it at the time of cardiac arrest. It might have become dislodged. So the award measure, or the quality measure, is the confirmation at the time of the cardiac arrest. Is that correct?

**Steven Bradley, MD:**Yeah, that's not to say that it's not important to confirm the device placement at the time of original placement. But for the award measure, it’s at the time of the resuscitation event.

**Tanya Lane Truitt:**

So the very next question asks about chest X-ray confirmation. Any insights for that one?

**Steven Bradley, MD:**So, you know, certainly there are lots of modalities for confirmation of placement of an endotracheal tube, including physical examination; auscultation, we've discussed; chest X-rays, important for kind of final confirmation. But certainly for a patient who has suffered a cardiac arrest, I think we would agree that we wouldn't want to wait for the chest X-ray for confirmation. So these other non-invasive approaches, including waveform and nonwaveform and colorimetric and end tidal CO2, the intent is to use these devices more regularly as a way to improve the quality of resuscitation care.

**Tanya Lane Truitt:**

Excellent. Thank you. So can you give a rationale for why we've decided to take out time to chest compressions?

**Steven Bradley, MD:**Yeah. So I think this, again -- and we've seen this for other quality measures in other disease conditions. A common one is aspirin for patients who have myocardial infarction, where greater than 99 percent of patients receive that therapy. So it becomes burdensome to continue to collect that data for sites, and it's not helpful in improving quality. In the same way, we've seen time from arrest event to chest compression is essentially zero across the board. So to collect that data and then report back on it isn't a quality improvement opportunity. So we want to focus our energies on those areas where there are gaps in quality performance and opportunities to address those gaps and improve the quality of care for our patients and, therefore, improve their outcomes. So that's the rationale for the change.

**Vinay Nadkarni, MD:**And, again, Steve, you're saying that it's still really important to have a time zero to start chest compressions, but it just doesn't differentiate those groups because so many people are able to do that now. It’s not really an area that many hospitals need to focus on. Is that right?

**Steven Bradley, MD:**

Absolutely. So I would say that it's important to continue to focus and recognize that zero delay is what we want in terms of chest compression initiation, but differentiating and offering opportunities for sites to really kind of further refine their care, it doesn't really live in that domain anymore.

**Tanya Lane Truitt:**

Thank you. We've had a couple of questions about the time to defibrillation measure. This one specifically, for your reference, is 43. “We struggle with shocking in less than two minutes, less than or equal to two minutes.” How does the less than or equal to two minutes fall in the same timeframe of two minutes and 59 seconds, or less than three minutes, or -- how does the timing work?

**Steven Bradley, MD:**So, I'm just going to read -- I'm reading the question myself to try and understand. “We struggle with shocking in less than or equal to two. Does the less than or equal to fall within the timeframe of two minutes and 59 seconds if we were to document using seconds, as well?” So that's a good question. And Tanya and Christina, I may put it back to you a little bit. My understanding is the current PMT does not capture seconds, and so it's really what the sites are documenting in terms of minutes. Is that correct?

**Tanya Lane Truitt:**

Yes. That is absolutely correct.

**Vinay Nadkarni, MD:**

Paul Chan's study, because it was using it in full minutes, if they were tracking it in seconds, it's up to two minutes and 59 seconds, because that would be less than three minutes. And that all falls into that two-minute category. There was a lot of debate when Paul was getting ready to publish that, and he did emphasize in that and when he was interviewed afterwards that within two minutes includes all the way up to that beginning the third minute.

**Steven Bradley, MD:**I guess, to be a little bit controversial, I guess it depends on how the sites interpret that. And I'm not sure, Tanya and Christina, if we have a definition in terms of how two minutes and 59 seconds is intended to be interpreted in reporting with Get With The Guidelines.

**Tanya Lane Truitt:**

So, you know, most of us just record in minutes. So anything less than three minutes is still two minutes, according to any kind of documentation.

**Steven Bradley, MD:**

Okay. So that was the question I had, yep. So hopefully that's helpful. It sounds like basically you're reporting in minutes and ignoring the second. And if it's two minutes plus five, or two minutes plus 59 seconds, that's still two minutes.

**Tanya Lane Truitt:**

Correct. Okay. So, just a couple of reminders -- because there's still a couple more questions -- about patients that arrive into your facility that are already intubated. We are saying that you should be checking -- this is a question. “Are we asking that they should be checking placement of endotracheal tube via one of the devices even though they're already intubated and we know they’re intubated?” We’re still getting several questions.

**Steven Bradley, MD:**

So I guess I'm a little confused, and this is one of the challenges of not having the opportunity to interact directly with the questioner. But I guess, if a patient is transferred to your facility with an endotracheal tube in place, for the measures of the resuscitation program, it would matter what happened at the time of an arrest event. So if a patient is transferred to your facility with an endotracheal tube from elsewhere, certainly I think clinical practice would dictate that when they arrive you would in some way confirm that the endotracheal tube is still where you want it to be. But for your resuscitation measures, that would have no impact on you. What would matter is, at the time the patient suffers an arrest event, did you reconfirm using waveform or nonwaveform and CO2 measures?

**Tanya Lane Truitt:**

Great. Thank you. Christina, there's a question that's about the -- you mentioned the May 20th, the time to shock incorrect results will be fixed. What do you mean by incorrect results? Can you clarify that?

**Christina Sterzing:**There are -- what line is this, Tanya, so I can read it?

**Tanya Lane Truitt:**

39.

**Christina Sterzing:**Okay. So the measure should have been written -- so you may recall that the measure existed before, but what we did was reconfigure it so that it was just for the adult population. I believe that, during that rewriting of the measure, a little bit more was changed than just the population definition for adults -- or the population definition did not change, but we just rewrote it in the measure so that it was only for adults instead of all populations. A little bit more than that actually got changed. So I'm not -- I can't really speak to exact issues with the measure, and it might vary from site to site. I just know that it had a few things that weren’t operating correctly.

**Tanya Lane Truitt:**

Great. Thank you. So the next question I have is, “If there is continuous end tidal CO2 monitoring, does that count for checking the placement of an already existing invasive airway?”

**Steven Bradley, MD:**

Yes. So if a patient has continuous end tidal CO2 monitoring and has an arrest, and you have end tidal CO2 monitoring in place at the time of the arrest, that certainly should count, as long as you are continuing to be hooked up at the time of the arrest event.

**Tanya Lane Truitt:**

So I'm doing the same things, trying to figure out what questions, what they mean by questions. But I think the question is, “Why do we care about airway placement when the patient was in primary defib or pulseless VTAC at first rhythm?”

**Steven Bradley, MD:**

So -- I think -- is that 48?

**Tanya Lane Truitt:**

Yeah, I think that's the question being asked there.

**Steven Bradley, MD:**

So the ventilation award is -- why is ventilation award based on VF/pulseless VT in the first rhythm – so, to be clear, the ventilation award is based on all patients in whom an endotracheal tube is placed. So there is the recognition measure that's specific to VT and VF patients in terms of time to defibrillation. There's the recognition measure that’s specific to VA asystole patients in terms of time to epinephrine. But any patient who has an arrest event that is managed with an endotracheal tube, confirmation of the placement of the endotracheal tube with end tidal CO2 measures is a recognition measure, essentially, regardless of their presenting rhythm.

**Tanya Lane Truitt:**

Great. Thank you. I think that answers that question. Trying to see if -- let's see. Just a reminder – actually, we'll tell you a little bit more about accessing slides and information, but there is handouts available. So please download them. Let's see if there's any other question that we have not hit.

**Christina Sterzing:**Tanya, this is Christina. I would like to address one question on here someone asked about the data entry changes that I reviewed for the adult form. Someone was asking, “Would this impact the neonatal or the newly born form?” And the answer to that is yes, so any data entry where you'll need to go back and verify records from January 1st on either of the CPA or CPA newly born form.

**Tanya Lane Truitt:**

Excellent. Also, clarifying information about the recognition award, this is a reminder that the minimum number of events, that you have to have 20 events, only has to -- only applies to bronze awards. Minimum events only applies to bronze awards. Silver or gold awards, as long as you are entering all your cardiac arrest events for that patient population, and you have at least one patient in each denominator of each measure, then you are eligible for award. Another question just came in. “For the time to shock measured, the unmonitored units have asked if we can use time defibrillator placed versus time event recognized.”

**Steven Bradley, MD:**

The measure is based on time event recognized to time of defibrillation. So the concern about using time -- and I think -- versus time to event recognized, I'm not entirely sure if I understand.

**Tanya Lane Truitt:**

So, when we -- in documentation, we use time the event was first recognized. So when the need for chest compressions or defibrillation was first identified is the start time we use for most of our time measures. They would like to be able to use the time that the defibrillator was first attached.

**Steven Bradley, MD:**

Yeah, that’s the way I’m reading the question, as well. And on the second read, I was concerned that I was reading that time defibrillator monitor placed versus time even recognized would be the time interval. But I think basically, just to clarify, the recognition measure is based on time of the event recognized, just as Tanya outlined, to the time of the first defibrillation attempt. The concern is if we used time the defibrillator monitor was placed, that fails to recognize that that’s time the patient is not actively being treated. The treatment is actually the delivery of a defibrillation shock. And certainly we want to encourage facilities to work to minimize the time to that first defibrillation shock.

**Tanya Lane Truitt:**

Great. Thank you. I think the final question would be for Christina. Let’s see. Sorry, a whole bunch more just came in. But it will be for Christina. Christina, there's the CPA ICU discharge within 24-hour measure. The question is being asked why that comes up red on the measures.

**Christina Sterzing:**

Yes. That's a good question because we do get that periodically, and it is slightly confusing because I like to refer to this particular measure as kind of an inverse measure. You want to be not compliant to this particular measure. So we are looking at ways to make that clear to people. We do have some limitations in the tool with how that displays. But if you review the measure description document, I believe there's a header right above that measure that mentions some additional information that explains – “The purpose of this report is to identify events that may be appropriate for peer review, and review these events to identify opportunities for improving processes and outcomes”. So, we could maybe indicate within the measure description document that – somehow nicely word that being not compliant is positive in this case. I hope that answers the question.

**Tanya Lane Truitt:**

Thank you, Christina. And I will turn it back over to Liz.

**Liz Olson:**
Great. Thank you so much. Thank you to our presenters for leading us in today’s webinar. Thank you to all of you for joining and for the great questions that we received today. We weren't able to get to all of the questions, but we will be compiling today’s Q&A into a document which you’ll be able to access on our website. We'll have, in the next week, a recording of today's webinar, the presentation slides, and the full Q&A on the American Heart Association website, heart.org/quality. We’ll also be emailing you a survey to gather your feedback on today’s webinar. We appreciate your time. Thank you, and have a great day.

**Operator:**
Thanks to all of our participants for joining us today. We hope that you found this webcast presentation informative. This concludes our webcast, and you may now disconnect. Have a great day.