OP-5 – Median Time to ECG

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Hello! This is Don Gettinger and I would like to welcome you to today's atom Alliance Quality Innovation Learning and Action Network event called Median Time to ECG Sharing. Again, I am Don Gettinger and I am based out of Indiana, but we have team members all across all of our five states.

I am briefly going to review the agenda. I'm giving some opening remarks right now, and will go through housekeeping items, then Justin Young and will be giving a presentation and summary. There will also be a time for sharing. This is the most important times in the call. This is an opportunity for those in facilities that are working on this measure to share what is working for you and perhaps more importantly, what has not worked for you. As smart as Justin is and the experience he has in this area, believe it or not, he does not know everything. Having you share with each other is really the meat of this call and hope that it works out well today. There will be some question and answers and then we will have some closing remarks.

Just an introduction to us at the atom Alliance. We are in all five states that are listed here. A combination of three organizations Qsource, Information & Quality Healthcare, and AQAF, working together to improve the quality of healthcare in our states. As part of these efforts, we help eligible clinicians and groups and facilities to better understand the quality of care they provide and the quality measures we are reporting.

A few the objectives for today's webinar. We are covering the median time to ECG, and we want to spread the best practices that we have learned while working with other facilities on this, and also to share the best practices you have that worked. We want to recognize that you have expertise in inventiveness in each of your facilities. That is where sharing is so important.

Like Karen said, our phone lines are muted. That is to make sure we do not have a lot of background noise. At any time press the star nine to raise your hand and we will unmute you so you can speak. This way we do not have background noise distracting the call.

We do have a chat function in the lower right section of your screen. You can use this to chat at any time and ask questions there. If you don’t want to unmute it. There is a Q&A feature, very similar to the chat, which allows for private questions if you would like to ask something specifically to one of the moderators or presenters. At this time, I’m going to introduce our speaker today, Justin Young who is a Health Information Technology Specialist with the atom Alliance. The floor is yours, Justin.

Thank you so much Don. Before we get started on our call today, we have a couple of polling questions that we are going to add to the slide here, if Karen would be so kind. Just to get a feel for who is in the audience.

If you will look at the right side of the screen, the first question is asking what your facility’s median time to ECG is? If it is between zero to three minutes, you would answer A. Four to five minutes, you would
answer B; six to seven minutes, you would answer C; and eight to ten minutes, you would answer D. Then, if you are greater than 10 minutes, you would answer E. For the most part, everyone is in six to seven minutes, we have some within four to five and some that are in the eight to ten. So, that is really good and no one in the greater than 10 minutes. That is fantastic.

Our second polling questions is who in your facility is responsible for administering the ECG on patients when they present to the ED. If it is one of your nurses or LPN, then you answer A. B if it is a Respiratory Therapist that is responsible for obtaining those, and C if is a nursing tech, CNA or other intern or medic or someone that is working in the ER. For the most part, it is Respiratory is responsible for taking those and some facilities have the RN or LPN doing it. Just wanted to poll the audience to kind of see what types of processes you have in place for this. So, we will go ahead and get started.

This call is for OP 5, median time to ECG. A little description about this measure. It is the median time (in minutes) from ED arrival to ECG (performed in the ED prior to transfer) for AMI or Chest Pain patients. The type of measure is it is a process. The improvement for this measure is noted as a decrease in the median value.

The rationale behind this is it comes from the evidence in the guidelines, recommending the patients presenting with chest discomfort or symptoms suggestive of a STEMI, have a 12-lead ECG performed within a target of 10 minutes of ED arrival. The evidence also supports the reperfusion benefits the patients with identified STEMI. The diagnosis and management of STEMI patients are dependent upon practices within the ED. Timely EKGs assists in identifying STEMI patients and impact the choice of reperfusion strategy. This measure will identify the median value for ECGs for chest pain or AMI patients and potential opportunities for improvement to decrease the median time to ECG.

Included populations in this measure. To be included in this measure, you have to have an E/M code or ED encounter, as defined in specs manual, appendix A OP table 1.0 and patients are discharged or transferred to a short-term General Hospital for inpatient care or to a federal healthcare facility, and an ICD-10 CM Principal Diagnosis Code for AMI, or other diagnosis codes for angina, acute coronary syndrome, or chest pain, and all of those are identified in the specs manual. They also have to be receiving the ECG. Excluded populations are patients less than 18 years of age. As we dig into this and looking at the specs manual and look through the data collection. The definition they gave here is the documentation of a 12-lead ECG was performed prior to ED arrival or in the ED prior to transfer. When we dug in on this, we looked at the abstractor’s notes for this. What they are asking here is the suggested data collection question. Was an ECG performed within one hour before the ED arrival or in the ED prior to transfer? That is the question they are asking. Allowable values are either yes or no. Yes, there was an ECG performed within one hour before ED arrival or in the ED prior to transfer or, NO, there was not a ECG performed within one hour before ED arrival or in the ED prior to transfer, and also know if they were unable to determine from medical record documentation, whether there was an ECG was performed.

Some notes for extraction. I thought these were kind of key to help understand this a little more. It is a straightforward measure, but there is some interpretation on these where they would select yes or no
and then abstract for the time. If there is a ECG performed exactly one hour prior to arrival, then you would say yes and count the time from that ECG that was performed, as long as it was confirmed the 12-lead was performed prior to arrival time at the arrival time. If there were multiple ECGs performed within one hour prior to ED arrival and/or in the ED prior to transfer, then you select yes as well. This third one is a little tricky. I want to include to help with understanding. If a prehospital ECG, before ED arrival cannot be confirmed as a 12-lead ECG based on documentation or the ECG strip, then abstract no for this. In contrast, if there is documentation of a ECG performed in the emergency department after arrival and is not specified as a 12-lead, then you would say yes. No, if you can’t confirm the 12-lead before arrival, after arrival if is not confirmed, it is documented as yes.

We did the polling question and asked where we ranked as far as your median time. Then, we want to look to see how we are ranked by state. This is the current Hospital Compare scoring. You can see that the national average is around seven minutes. Alabama and Kentucky at seven minutes and Indiana, as part of our Alliance, that runs about five minutes and Tennessee at six minutes. Mississippi is at nine minutes. The reason it is important to look at that is even though the evidence says in less than 10 minutes, we all know the importance of the faster that we diagnose this condition, and the faster we begin treatment for reperfusion or other cases that might be involved in the STEMI, the better outcome is for the patient.

Some strategies for success. Diagnose the patient as early in the patient flow as possible. For example, you may enable EMS to diagnose a STEMI patient or notified the emergency department of possible STEMI to initiate the preparation process. This might include sending the EKGs over in route so those can be interpreted by the doctor, so they can better prepare for the patient coming in that are identified as a STEMI. Also, confirming and using the 12-lead through EMS could help lower those times as far as the quality score you would receive if you can confirm and use the 12-lead from the EMS. You could abstract a zero for your time, which could lower your times. Promptly identifying patients requiring ECG through nurse interview prior to registration or provide necessary training to registration personnel. This goes with training registration clerks maybe to page back to indicate in the emergency department or to get the ECG technician when patients present with chest pain or complaints associated with acute coronary circumstances, such as shortness of breath, syncope or weakness, and having processes in place, since this is a process measure. Synchronizing equipment and clocks in the emergency department. This is for successfully lowering your score. To make sure that the time on your ECG machine is the same as what is registering in the ER or that it is documented on there and maybe when the doctors reading their watch, which may not be the same time as indicated in the EHR. You want to make sure they are all synched together, so everyone is on the same page when documenting that.

Specify process and protocol for rapidly acquiring ECGs, including having the equipment available in the emergency department and specifying a location that affords prompt access and adequate patient privacy. This ties into the question of who is responsible for obtaining those EKGs. If you have a small facility and a Respiratory Therapist, or someone responsible for getting that responsible for getting that, if they are giving breathing treatment somewhere else and are not able to administer the test and you are waiting on time and that ultimately can lead to different outcomes for the patient. We highly recommend having the ECG equipment in the emergency department where it is readily available and a nurse, or
whoever you have in your process, can start to administer the test and get the results to the doctor as quickly as possible.

Those are some of the strategies for success that we would like to recommend. We also want to open the floor up and hear for you guys, for some peer to peer sharing and some strategies. Maybe something that has worked in your facility that you would like to share. Maybe some positive strategies or even barriers that you have. If you would like to share, please press star nine to raise your hand and we can get you on the line.

Hello! This is Amanda at Johnson County Community Hospital. Last year in May, we did an RIE at the hospital to help improve EKG times. Before the RIE, the median time for chest pain patients was 7.2 minutes and for AMI it was 20.3 minutes. In the RIE, we laid out a standard work of when a patient comes in, we added the chief complaint of shortness of breath, syncope and dizziness, as well as chest pain, whenever a patient checks-in with one of those complains, the admitting girls will do an urgent broadcast to the ER or in Respiratory that a complaint has checked in. If Respiratory is here, which is from 10 AM to 10 PM, they immediately get the patient and take them to a room and start their EKG. If they are not, the nurses will get the patient and do the same thing. Once it is completed, they take it straight to the doctor. After we laid that out, our median time for chest pains is now at six minutes and AMIs is at five minutes.

That is fantastic. So, you said you lowered your score from 20.3 for AMI to five minutes? You lowered your score over 15 minutes? Having an earlier recognition of having those patients with shortness of breath, syncope, dizziness, chest pain type thing, that they would page back from registration.

Yes sir. We added those three complaints, as well as chest pain. They then broadcast, and the patients are brought back quickly.

That speaks volumes to be able to even lower the other score over a minute. To lower something 15 minutes is fantastic.

It made a huge difference.

Are you still seeing barriers to this? They say the 90th percentile on this would be three minutes, a three-minute time. Do you see at your facility any barriers that would keep you from lowering the score from five minutes down or six minutes down to improve the time?

I definitely feel that especially at nighttime, when we do not have Respiratory here and after midnight we lose the registration clerk. We have to nurses that have to register the patients. They are the ones getting EKGs and triage in doing everything. It would definitely be very difficult to get it lower than that, especially on the night shift. Then in general, sometimes it is difficult to get a patient back, undressed, and all the stickers on and in the EKG machine to obtain the EKG. I feel like getting it below five would be very difficult.

So, staffing is the biggest thing?

Yes. Staffing would be the biggest.
I expect that at your facility, do you have any kind of protocol or anything they do, or do they just wait for approval to get the EKGs? Is there any kind of protocol set up with the diagnosis you were talking about earlier with shortness of breath, chest pain, to initiate?

No, that is just the standard that was rolled out. They know if they check in with that, they are to get a EKG. They do use their judgment on some things. If they know the shortness of breath turns into it has actually been turned into a cough for several days, they will use their judgment both for the most part. If they check in with one of those they get a EKG.

Thank you for sharing. That is excellent. A testament to your work at Johnson County to lower the scores. I can’t get over that it is over 15 minutes by instituting and adding those additional complaints for doing it. That is awesome.

Thank you.

Thank you for sharing. Do we have anyone else on the line who would like to share a process at their facility? Or a really good benefit of having others on the call is to possibly share a barrier, like staffing? Maybe there is another barrier at your facility that you could talk about? Or have other facilities share a possible strategy for overcoming barriers? If you have something you would like to share or a question to ask, please press star and the number nine.

I am not seeing any hands raised.

I see quite a few of our Critical Access Hospital from Tennessee are on the line. Maybe we had some people who answered the polling question that they were running four to five-minutes, is there anyone who would like to share what process they have at their facility?

This is Don. We have a relatively small group. Can we open up all of the lines, then that might help with participation, a little bit?

Sure. All lines are unmuted. Feel free to share and speak up if you have anything to share today.

I was also wondering if anyone had a similar barrier in staffing that the first facility had and what you have done to try to overcome that? Maybe not completely resolved, but what kind of things have you done to mitigate that?

This is Karen at Marshall Medical Center in Lewisburg, Tennessee. We have a similar staffing issue with only having two nurses available. So, we have trained technicians and Respiratory Therapists, but we do not wait on them. We have the RNs who are responsible to get it as quickly as possible. If they are tied up, the technician in the ED or Respiratory can do the EKGs.

So, you guys have a technician, so as far as a CNA?

Right, a CNA. We use them as the unit secretary and tech. The unit secretary technicians have been trained to do EKGs also.
Do you guys see as well in an increase in time at night due to the staffing? Is that something similar that you are seeing at Marshall? Or do you have two nurses at all times?

No, we do not see a difference in the times for time of day. We do have registration around the clock. We do have registration and we have Respiratory around-the-clock. So, we're not really seeing a difference in the process day or night.

Have you done education with registration as far as to help identifying these types of patients?

Yes, similar to what they have done. They have a list of symptoms that if someone comes up to the desk with those symptoms, they contact a nursing immediately. Our big issue is that we are close enough to other tertiary facilities, that our EMS does not bring the STEMI to Marshall. So, we do not get any zeros to add into our score. The chest pains that we have are 100% POD. That kind of hurts us. Does anyone else have that problem? Which, I am not saying it is wrong, because it gets them to the Cath lab or to surgery quicker and gets them closer to intervention but is does affect our score. Our average is six or seven minutes.

Karen, I know that it was sometime in 2017, you mentioned that the Administration wanted you to look at being in the 90th percentile and work on that. Did you guys do some process mapping? With the registration process?

Yes. We did do some process mapping. That is when we worked with registration and trained the unit secretary technicians to be available, because they were primarily depending on the EKGs to be done by Respiratory. Respiratory may be on the other end of the building. All of the nurses have been trained in the equipment in the ED. We just refined that process, so we were not waiting on anybody. The RN, if they are first, she starts it. The tech may arrive and help take over that part while she is doing something else, or when Respiratory comes they may take it over. They work together as a team.

Anything else in the process mapping that you found that you were not aware of before to help to lower your time?

That was really our big thing. We had gotten it down to four or five-minutes the two years prior. But we edged our way back up and hovering around 10 or 11 minutes by the first of last year. We relooked at it and kind of refined that intervention, making sure the RNs are in was not waiting on Respiratory. Also, we do not own our EMS here. The county made a new decision about taking all of those patients directly to a larger facility. That is when we stopped getting any zeros to add into our numbers to calculate with our average.

I heard someone named Amanda have a comment.

You were talking about delays with registration, here at Johnson County I forgot to add that part. Whenever they do check-in at registration, the ladies will do a quick reg on the patient and call the urgent broadcast. They will urgent broadcast and they will come back to the room and finish the registration. That helped too, because a full registration can take seven or eight minutes.
That is a really good point of just doing those quick registrations, just to get the name and the stickers printer, but to go ahead and get them back to the room to start on their treatment. Very good point.

Okay, let me go back and ask Amanda. You guys did an RIE, and for those that don’t know what an RIE is, it is a rapid improvement event, at your facility to pinpoint, was there anything you found during that was a barrier besides the staffing that you were able to overcome, because you mentioned that the Registration did a quick reg? Was there anything else you saw? You already have the EKG machine in the ED?

Yes. The EKG machine is readily available in the ER. We added Respiratory to the {indiscernible} broadcast team, so they get the same broadcast the nurses do whenever the patient checks. Really just defining at times who was responsible. When Respiratory is here they are the ones responsible and should get the EKG first, but if they are tied up the RNs know. Respiratory will let them know when they do a pulmonary function test and will be tied up for a certain amount of time. So, they will know ahead of time that if this checks in and we need to go ahead and be prepared to get it ourselves.

Does anyone else have anything? We have heard from Marshall and Johnson County, but there are other facilities on. Anyone else have anything they would like to add?

We have gotten some good information on some of the barriers as far as staffing and the EMS that Marshall mentioned, maybe taking more of the serious cases to a nearby hospital and not being able to factor in zero. Has anyone had any trouble with EMS bringing them in but you are not able to confirm it is 12-lead? The EKG that you are getting in, the one that is transferred. Anyone having any issues with that at all?

I did notice when we did the polling question that asked about the times you had, the overall rating these times, is this something you would like to work to improve? Maybe if you are in that eight to ten minutes, or the six to seven minutes. It is something, that if it were feasible, to make it a measure of priority to lower that? Is it something you would be interested in working with other hospitals in the work group to lower scores? We’re going to roll out some tools and resources for this.

We will get ready to wrap up the call, if we don’t have anybody else wanting to discuss or if there is anything else to be said.

Thank you, guys, we did have some good sharing on here. Johnson County and Marshall thank you both for participating and sharing your strategies and successes you guys have had. We appreciate that. Here is the list of references for today. I am going to kick it over to Don?

Thank you, Justin and to you and Eric for leading the call. I want to thank everyone for being on the call. Thank you to those who participated and joined the call today, we want to give you our thanks. I want to remind you that we are here if questions come up on this measure are other quality measures in the outpatient or inpatient quality reporting programs. Please contact us if you have any questions or need technical assistance around improvement activities. We are contracted with Medicare to provide that assistance to you free of charge. Let’s work together to have the best possible care for your patients. We
ask that you take a few minutes to complete our survey. Your feedback is valuable to us. It helps to shape the things we do in the future. So, our future virtual Learning and Action Networks helps identify what measures are important to you identify what measures are what is important and what you would like to discuss. We will remind you that the call was recorded and will be posted to the atomalliance.org website. Please join us through social media and for more opportunities for networking and engagement. Again, thank you for joining us and have a great afternoon.