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Enhancing physician documentation: Nudges and queries webinar

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3M CDI INNOVATION WEBINAR SERIES

Ryan Okay. Hello and welcome to today's 3M Health Information Systems webinar. My name is Ryan. My name is Jared.

And we'll be your hosts for today's webinar. And first off we would like to just start off by thanking you for joining us in today's webinar in this unique time and sensitive time during our fight against the pandemic with COVID-19. We appreciate the effort that you've made to join us. We hope that you find today's content valuable, today's session to be informative and that you can use this moving forward in your work. In today's webinar, we will review how you can enhance physician documentation with nudges and queries.

Jared I encourage you to ask questions throughout the presentation. You can do this by using the questions feature in the web meeting controls, which is located in the lower right portion of your screen. We're also recording today's presentation and a webinar archive will be available, so look out for an email from the next week that includes the link to the archive. A PDF that contains all the presentation slides is available for you to download and that's located in the handout section of your web meeting controls. We'll also provide a certificate of attendance to webinar attendees, and that will be emailed to you upon the completion of this webinar later today.

Ryan Thanks, Jared. And today's presenters are Julie Solomon and Kaitlin Crowther. Julie is the chief product owner here at 3M. She works with the CDI and physician solutions. She brings 34 years of nursing experience working with a variety of hospitals, including small hospitals and large universities and enterprise systems across the nation. Kaitlin is a senior product manager for the CDI Engage One product, here ar 3M. She received her RHIA from the University of Pittsburgh, [inaudible 00:02:30] Natural Language Understanding in radiology, documentation, an inpatient clinical [inaudible 00:02:37]. With that, Julia an Kaitlin, I know everybody's excited to hear from you, so we'll turn the time over to you.

Kaitlin Thanks Ryan. All right, so today's agenda, we're going to go over physician documentation. Really, this is the basis of where we can start clinical documentation improvement, clinical documentation excellence. And really, it's the genesis of where we can start improving that documentation. So we know that the physician kind of has this golden second when we're thinking about what they're creating and that's the best time that we can make an intervention to get better documentation.

Julia's going to go over queries in the background there and say when is it appropriate that we utilize those and then I'll cover some of our new technology that we've been really using the terminology nudges around. And this utilizes some of our artificial intelligence technology and then computer assisted physician documentation.

So, [inaudible 00:04:09]. The physician engagement, this is really key to the success of the CDI department. What we're hearing out in the market is that physicians do not have the time, they're going through alert fatigue right now, they have tons of administrative tasks to do, clicks and buttons firing all over the EMR, competing priorities. And without this key physician engagement, we can't make an intervention to get the documentation better.

Ultimately, as we all know, if it was not documented, it was not done. So we have to get this in documentation by the physician. A lot of CDI departments are spending a lot of their time on outreach. We're also seeing CDI departments are operating as quickly and as best as they can. Their CDI specialists are doing great, they're sending high amounts of queries, they're making all the interventions they can make, and it's still not touching the amount of patients and documentation that are in a health system.

We all know there's a shortage of CDI specialists across the United States. So how do we move this workflow further up? Really, what we see is physician engagement being that key to CDI success. We see a tremendous amount in nearly 90% of hospitals and health system executives reported an interest in physician engagement. So, we're seeing how do we, how do we get this up front when that

Kaitlin
continued

documentation is being created. And how do we do quality measures? We get them to document about HCCs, we're documenting to improve MS-DRGs. There's all these different things that are driving that documentation. We really want to make sure that we are engaging the physicians because they're the key here and we can't cover nearly as much as we need to without them.

This was a recent study from July, 2019 I think. It definitely made the rounds when it was published. The other big thing that we're considering when we work with physicians is burnout. So this is an article where we saw that the wellbeing is linked to in-basket messages generated by algorithms and eHR. So we're seeing really negative impacts if automated messages are going to the in-basket and it's bogging down the physician. The physician has to go there to answer important patient questions, quality questions and section questions. And a lot of times these automated alerts that are going into the in-basket are distracting the physicians. We saw a 40% higher probability of burnout if physicians were receiving more than the average number of system generated in-basket messages. Really, we're looking that how do we avoid bogging down the in-basket, but we still get the physicians to give the documentation that we need.

This was one of the probably first places that automated messages and alerts were implemented and then large share due to structure data that was found in the eHR. We kind of took this as what we can improve upon because we're seeing these negative impacts. Really, when it comes to the wellbeing of the physician, we find that physician burnout is something we really want to avoid and how do we help with this? This is also a retrospective process. A lot of times when they're going into the in-basket it's after they completed the documentation for the patient, maybe after they were physically around with the patient and they're going back and seeing this in-basket message a little bit later, maybe concurrently this day or even after the patient's discharged. We also see that we know we need to strike while the iron is hot and get there a little bit sooner.

This is some information from an American Hospital Association survey, looking at the challenges with physician engagement on the CDI side. 98.5% of CDI programs believe their physicians can improve documentation practices. That's pretty much a given that we think documentation could be happening better on behalf of the physicians, there's room for improvement and like we thought we just simply don't have the bandwidth to be making these manual interventions with CDI specialists all the time. We need a technology to help cover this. It's just there's so much documentation being created and we need a way that we can get that good documentation from the physician at the point of documentation.

We also saw 66.5% reported the lack of understanding of the importance of documentation. So not only are we asking for this documentation, we want to educate why this is important, show the impact. And that's really why it's important that we close the loop on any information that we give to providers and show the outcomes of them providing that information. Physicians also have a lack of time and lack of interest. So as we found that previous slide, they're being pulled in lots of different directions to create that documentation. And they're thinking about all these administrative tasks they have to complete, time outside of their work hours that they have to get this done in. So, how do we strike in that golden second while they're creating that documentation so we can get it while the physician is engaged in the patient's story?

What's really driving this technology is what we call Natural Language Understanding. Looking at that kind of problem situation, the physicians don't have the time, they don't have the energy, they don't have the resources to be able to answer these questions. How do we assist in getting that great documentation while they do have those principles? And the foundation for us is our Natural Language Understanding. I'm going to talk a little bit more in detail further on in the presentation about this. But really what this is doing is understanding what the physician is documenting as they are documenting it in real time.

We use a premise that we call these nudges to deliver this feedback to the physician as they're creating it. And it's based on these information models on a medical condition level. So that really helps in defining that this is the diagnosis that we're talking about and leveling with the physician and saying,

Kaitlin continued

"Can we get this additional clinical information that is not just going to help us get a CC or MCC is also going to help us with HCC. It's going to help us with clinical qualities of care and across the board." Really defining things at the Natural Language Understanding level to drive better documentation. And with that I'm going to hand over to Julie.

Julie

Thanks Kaitlin. Kaitlin just showed us one condition, heart failure. If we think about every condition that can medically occur with a case, there are just so many details and when we look at that value set that she's going to go into later in the presentation and multiply that against the conditions that are possible out there, and then all the details that go along with that condition, it's pretty overwhelming as to the amount of documentation that has to occur. And then there are many variations on what that specific documentation is, pertaining to the condition. The physician, the way that the folks that set the rules out there in the documentation world set it up, the physician could never really begin to know all of that detail.

Then add in the fact that many of those directives around documentation don't even come out of a clinical methodology and they don't match up to what the physicians are talking about clinically. A great example of that is just simple bacteremia in the clinical physician world, that really means that there's a pathogen in your bloodstream. In the documentation world, that doesn't mean anything. There's really a huge gap. And so when the physicians are in real time documenting that's what Kaitlin is, we're pulling those pieces together. Can we be more real time up front?

So why is this so important to revenue cycle? Well, because it describes everything that we do in the life cycle of a case in the hospital. And that directly impacts our revenue cycle. We use it to support medical necessity and acuity to even get in the door. It's going to be what the foundation is to be continued to stay in the hospital. We have to get those authorizations every couple of days. It's going to impact those resources. So if I'm sitting in the wrong DRG and I have the wrong length of stay, I may not be able to stay in the hospital. Certainly the hospital's not going to get paid for the care that is given and we're going to have a gap there.

As far as compliance goes, huge implications here. If we're documenting the diagnoses that aren't supported in the medical record, they're going to be denied. We're going to get penalized and it's going to be considered fraud even if it was unintentional. If I'm doing my best as a physician to document what I think is correct, good example of that is respiratory failure. If it's an integral part of the surgery, I really should document it. But maybe you don't quite realize that. So there's a big implication there, legally speaking.

And I've already spoken a little bit about the revenue impacts and that we don't get reimbursed correctly if we're sitting in the wrong category. Also, if I can get this right on the front end, I'm really gonna avoid the rework and denials on the backend. I'm gonna avoid the fraud and the legal implications. And then in the end I'm going to have data integrity. So this is something that's really important. If we have a case that qualifies for SIRS but really isn't septic, we just documented that we have a case with those clinical findings that is septic, when in fact it's not. That's part of the reason why that loophole for SIRS was closed because really, we need to report the reporting people that are truly clinically septic and making that when we're doing that, that we get all the secondary conditions that can profoundly affect their stay.

All right, so there we go. All right, you can see when we look at the revenue life cycle, that every bit of clinical documentation really is important. The physician's documentation of course is the most important because that's what all the codes are driven off of. So any diagnoses, procedures that the ENM levels, drug administration, all of that is driven off of physician documentation. However, that same information is found in nursing notes, in ancillary department notes. And those, a lot of times, have the entire story, whereas the physicians might just have those pertinent things that are clinically important on admission, on that day or during a certain period of the stay for the case. It may not have all of those nuances.

For that clinical documentation integrity, that's where we kind of pull, try to pull it all together and make sure that it's complete. Of course we want to review and make sure that we're getting everything into

Julie continued

the record that we need to to, again, as I said on the previous slide, avoid those backend denials and having to do a lot of backend work. Because we're trying to justify things after the fact for the case. That's where we pull in our nudges and queries. Together, these are extremely powerful. We can get a nudge at the point in time that the physician is documenting and we can clarify up front. We don't have to count on someone the safety net of the query.

The query though is a great safety net and we leverage our clinical documentation, integrity programs and our reviewers to go out and try to capture those things that are really important. Harnessing the power of the upfront at point in time of dictation or documentation by provider, and then looking at those more complex situations that maybe the physicians just aren't so in tune with as far as documentation guidelines go, we can get the both of best worlds and we can really get clinical documentation integrity.

When we talk about queries, we're going to, in this section, review what we're looking at what is that evolution of queries and how does that help us in the end with that nudging. We're going to look at a poll question first. And polling question number one is who is responsible for initiating queries in your organization? Select all that apply. So here you want to take look at what you've been responsible for. We've got CDI, inpatient coding, professional coding, quality. Maybe you don't issue queries that your organization or I don't know. And you can select all that apply to these.

Ryan Okay. We're just collecting a few responses here about ready to close it out.

Julie Okay.

Ryan Okay. I'm going to share the results. We had 87% said CDI, 67% inpatient coding, 21% professional coding, 8% quality, and 2% we don't issue queries at our organization.

Julie Great. That gives us kind of a real view into what folks are doing out there. And we all know that back in the day when I started, a long time ago the, the main job of CDI really was to just do queries that pertained to inpatient. And since that time things have evolved and now we're finding ourselves pulled in all sorts of directions and having to do a lot of extra jobs that line up with documentation, like capturing HCCs or really starting the ball for quality and capturing those risk adjustments for PSIs or PPCs or even POA. Our roles have really expanded and so there's a lot to consider and being able to leverage the front end and the technology and even the technology and the traditional CDI space is really important.

So with that we did have an ACDIS and ADHIMA briefs that went out in 2019. And they were really talking about the guidelines for achieving a compliant query practice. A lot has changed. It's not so much anymore that we're just relying on a CDI to write a manual query or to verbally interact with a physician and leverage that query. But now we've got other folks that are querying and we've always had a crossover between CDI and coding as far as querying goes. But now we've got quality coming in and they're wanting to do their own queries. I know a lot of quality programs have been querying for some time, but didn't do it as formally as our CDI groups have done. Lots of folks out there asking questions.

We had some direction and basically, you know what the takeaway is from this is that regardless of the credential role, title, or the use of technology that all healthcare professionals seeking to clarify provider documentation must follow compliant query guidelines. So that of course, makes a lot of sense. We all need to be doing this the same way and according to our internal policies and guidelines in our hospitals and our healthcare systems. Making sure that you're really when you're clarifying physician documentation that you have a process and policy in place on how you're going to handle that, how you're going to record it and follow those internal practices. There are folks that look in and sometimes want to see what we're doing or they may decide that we need to show what we've been doing. All of this is discoverable. So those are the things that we need to take into account and make sure that we have good guidelines and policies internally to support the process.

The CDI role and collaboration. It feels like a million years ago when I first started, we really called this like a collaboration. We had three pillars, the CDI, the HIM and the provider in that little triangle of collaboration. Now we collaborate out with a lot of different groups and we have become more and

Julie continued

more not just collaborative, but concurrent with our practices. We've had a lot of retrospective practices ongoing for years that are starting to move more concurrent into the process. Also with that, we always treated the providers as like the outsider, the coder and the CDI were really the team members, the providers were the targets of the communication and the education. And now we're looking at how can we better pull in the provider and really offer them that assistance up front. And that's kind of where that nudge comes in.

Whereas with our queries, we're looking at how to get to the cases that are out there. And there are a lot of cases, as Kaitlin mentioned earlier, there's a shortage of CDIs across the nation. How do we have enough bodies to really help us get to all the value cases that we have? So things have really changed in the industry. And I think [inaudible 00:23:15] I think I'm getting a poor audio comment. Is that any better?

Ryan

It's still a little choppy, but if you can just keep going, I think hopefully we can try and get that resolved.

Julie

Okay. Thank you. As we know, it's really important to be able to get to the content and we want to be to really leverage our querying. When to query, how do we find the right cases? The industry started out with financial opportunity, we've moved in to quality opportunity and really defining that severity and risk of mortality as well as the patient safety indicators and potentially preventable conditions. It runs the gamut. And now we're looking at CDI expansion. So with CDI expansion, I mentioned we're looking at how do we find those quality concepts. We are going to kick the ball off or POA for hacks and PSIS and PPCs and other quality metrics. We really want to be able to identify those patients that have a potentially preventable readmission or an all-cause readmission. And we don't want to just focus on our adult population. We really also want to look at all populations that we're treating.

How to query. Reviewing, traditionally what reviewers started out doing was reviewing the medical record and we would review that in totality and looking at all of the physician documentation and ancillary documentation to determine that we had a query opportunity. Here we have an example of malnutrition. There may be patients who have clinical findings of malnutrition but no documented diagnosis. There may be patients that have mentioned of malnutrition, but the specificity is not documented. We would come through the charts to try to find that example of support so we could voice that query.

Query examples, we want to be compliant. Really, what are we trying to do with a query? When we talk about the malnutrition query, we can certainly for specificity, just have an opportunity to say, "Hey, patient has malnutrition. Could you please document that severity, be it mild, moderate, severe or other." We always offer with those multiple choice questions a clinically unable to further specify. With sepsis, we're running the gamut of not just is sepsis present, not documented, and we need to find out if sepsis exists, but also if sepsis is documented, how can we make sure that it's clinically valid? Again we have to be compliant, so we want to offer more than one choice. We want to make sure that we have not led the physician in any way and that we have a unified approach across our hospital or system.

Leveraging technology is pretty important. As I said before there are a lot of cases out there. There are cases that we may not be able to get to. So how can we leverage technology? A lot folks are utilizing prioritization of cases where we can look for those cases that are of value and we can find the most important questions that need to be clarified to get the record well-defined and have that documentation integrity. So with the new solutions that we brought in with CDI Engage One and with a front end physician pieces, we can look for clinical evidence with the NLU content. And I think Kaitlin is going to get a little bit more into that. And we can actually leverage the discrete data to be able to offer up a nudge or a query for a sepsis.

If we need to send it to a CDI reviewer first, we can do that via the query functionality. And we can add all the pieces that we need so that, that CDs can utilize the technology to surface an opportunity for a condition to them. And then they can take a look at that condition and determine that they should send a query. And some of those may have started off as a nudge and needed to evolve or gather more clinical information and then the CDs is the safety net, closing out and really tying those pieces together. Of course we want to ensure that all the M query responses are valid. If the physician

Julie continued

agrees in documents, then that's pretty straightforward. We pick that up. If the physician disagrees maybe there is a clinical reason why the physician's disagreeing.

Maybe for that example of sepsis, they don't feel like the patient has really slipped into sepsis yet, but they still have a really profound local infection. Sometimes with the type of infections like pneumonia for example it's not always as clear cut. We need to make sure that the physician clinically agrees. And then there might be other instances where we need to educate and follow up. If the physician didn't really give us what we are looking for. If they provide something that's not codeable, for example a hospital acquired response to a pneumonia specificity, well we know where it came from, but what we really need to know is the bacteria. There are a lot of opportunities for education around the CDI concept.

And then reporting out the value of the program. What is the process that we're using to reconcile and make sure that what's coming back to us from the physicians is not just valid, but how did it bring value? What is the value of the query that the CDS reviewer asked or the coder asked or that quality person asked? What is an easy way to be able to utilize technology and do an automated reconciliation so that we can really surface what the value of that query was.

Query metrics for CDI programs. Here we can see some stats that show us what some of the shifting is. What are we capturing? What's the priority for capturing those DRG shifts or documentation that requires clarification even if it doesn't have some financial impact or maybe another clearly observed impact. Maybe we ask for that secondary because we had one MCC or one CC and it didn't tell the whole story of the case without that documentation. And then there's clinical validation and of course our quality impacts and HCCs that are out there.

With a mature program, what are we looking at with query rates? There's a big difference between a program that's just beginning and really focusing a lot of times just on the financial to those programs that have really evolved. We've done great education to the physicians and now we're looking at leaving fewer queries. And isn't that the goal of every program is to be able to leave fewer queries and have those nudges clean up the record before we have to go ahead and send a query.

Really, when we're looking at a mature program, we might be looking at seeing our query rates go down. And that's actually a positive response because our codes are now more defined and more accurate, more specific. And there are ways that, of course, we can look at that by looking at the number of unspecified codes that remain in our code sets. What opportunity do we have to get further specification. All right, so with that I'll turn it to Kaitlin and she's going to cover nudges.

Kaitlin

Thanks, Julie. Well, I'm going to go ahead to our next polling question. This is around how you engage with your physicians today. The question is how is your CDI team engaging physicians today? And if you could just select one. For this one we want to learn a little bit more about what your best of breed solution is. Are you guys running educational sessions? Do you have workflow prompts built into the eHR that provide hard stops that they have to answer? Are you issuing electronic queries or are you having difficulty today effectively engaging physicians? If we want to give it a couple of minutes for everybody to select one, this will give us a little bit of a better idea about how physicians are being engaged today.

Ryan

Great. We'll just give it a few more seconds. Okay. I'm going to go ahead and close the poll and share the results. So we had 17% said educational sessions, 3% said workflow prompts, 69% said electronic queries and 12% said have difficulty effectively engaging physicians.

Kaitlin

Great. This really goes back to we are seeing the main source of intervention from the CDI department being electronic queries thinks that a multitude of ways. That's really aligned with what Julie was presenting and we see these as two halves of the whole. As I get into nudges keep in mind that the idea of a nudge is, can we prevent some of these queries. And not prevent all queries, I always like to make that distinction, but can we get that low hanging fruit from the provider as they're grading the documentation and then let the CDI experts use their clinical decision making to concentrate on those more complex queries that they're putting the pieces together on. Absolutely, we see these as two halves of the whole. So, it's good to see that that's being used so much in the field.

Kaitlin
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When we talk about the basis that our nudge technology works on, we use the terminology conversational AI or conversational artificial intelligence. And this is really a when MModal started that, 3M made the acquisition of, we did the basis based on creating physician documentation. Whether that's typing or using speech or copying and pasting, we want to capture any way that physicians were creating documentation. That's kinda of step one in this whole continuum, is capture that documentation. We have our best in class speech tools, so that's called fluency direct, it has a great speech engine where physicians can use front end speech and dictate directly into the EMR. They can use traditional transcription and that still goes through our speech understanding engine.

But it just really gives people the idea that we want to start reasoning over and collecting this information as soon as it's generated. The moment that that documentation goes onto the paper, we want to start understanding it. That's the first field here is that capturing clinical documentation. The second parallel is to create insight. We want to understand, okay, we talked about the patient's heart failure, his type II diabetes, his hypertension, his treatment. And we want to create insight from that. So, kind of going back to that circle model of heart failure, we're thinking, "Okay, we see this patient that has heart failure. It's positively documented. They have a coexisting condition of hypertension and he's on a treatment for it."

This is something that is kind of active in this documentation. And we do that by marking these documents up with incremental Natural Language Understanding as soon as they're created. That patient picture is just filling in. As soon as the documentation is created, it's using multiple sources. So, if we have a lab feed, medication feed, we're able to put these pieces together and start coming up with this clinical picture of the patient. That's kind of step two.

And then finally with step three, we want to drive action. So can we provide a nudge to the physician as they're creating this clinical documentation that said, "Okay, I see you documented heart failure, you have an ejection fraction, you have a treatment, you have some BMP levels. Can you give me the type and acuity of that heart failure as you're in the context of the patient?" And this is really where we see the importance of our nudge technology arising. So it's that real time, low hanging fruit that this is something we feel confident that this physician has the pieces to put together to give us the documentation and it's going to help out the whole rest of the workflow downstream.

This is also important because we can leverage it across a lot of different settings. Primarily CDIs are concentrating on inpatient care. So that's where we can get CCs and MCCs and increase the MS-DRG. We can also increase the APR-DRG, the severity of illness, risk of mortality by getting this better documentation. Also, we can use our incremental Natural Language Understanding to benefit outpatient settings. We've been concentrating specifically around HCCs.

Getting that a diabetes complication documentation maybe already had an MCC on the chart, but that's going to go towards the RASS score for the patient for the [inaudible 00:37:35] as well. So, not only looking in the context of that single encounter, but we can look in the whole patient context to define some of this information. We've done not just around behavioral health, we've sone nudges in the ambulatory side. So it really gives us a platform technology to drive off of and be able to meet all these different settings that there might not necessarily be an opportunity for a full query workflow to be effective in. That's extremely powerful. Again CDI is doing awesome. They're there during great and are able to get those interventions with physicians, but sometimes there just isn't time for that workflow to take place. And if we can use this real time incremental technology, that's going to be our opportunity to reach out for physicians as they're thinking about the case.

We've been using this language called the nudge, so it's very near and dear to us. You'll never hear me say alerts, you'll never hear me say prompt. Sometimes I'll say message, but there was this book that came out a few years ago and I know I've been suggested to read it out a couple of different sources and it just shows that we want to give the physician the free will, the choice. We don't want to punish them for not answering it. So our delivery of the nudge is meant to be very passive. We don't do a hard stop. We do close the loop. So if a physician is not addressing that nudge, it goes to the CDI specialist in

Kaitlin
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the workflow to see how they evaluated that. But it's also reasoning across the encounter. So if we have information previously in the note before the progress note before this one, that it's acute systolic heart failure, we can leverage that information.

But again, going back to this terminology that we use, the nudge. It's this architecture that alters people's behavior in a predictable way without forbidding any options are significantly changing their economic incentives. Looking at it a principal view, we want to be very passive with the way that we deliver this because we don't want to be seen as a physician dissatisfier, something causing alert fatigue, another one of those administrative inefficiencies that they have to deal with. And a big thing within the nudge is we want to make it easy for the physician to do the right thing. And that's why it's so important to us that this is delivered in that patient context.

We have this awareness that you're in this patient's chart, in the EMR, you're talking about the patient, you're creating documentation around the patient. We want to make it as easy as possible for you to create the right documentation around the patient. And we also don't want to make it a mandate. We don't want to count this against you, maybe you just don't have the time to respond to this right now, you're not the right person to respond to that. So, nudges are not a mandate. One of the examples we use is, if you put fruit at the eye level, that's a nudge for somebody to make a healthy choice. If you put a candy bar at the eye level, that's going to make them easier to make an unhealthy choice. We're not banning the candy bar, we're just making it easier to make the right decision. So, putting that information at the eye level for the physician.

And I think the other big piece of this is making sure that the right nudges are enabled for the right physician. We've spent a lot of time working on the customizability of our nudges as well as who receives them. Breaking the physicians up into different groups and things like that so we can allow that the right nudges are directed for the right people to respond to. That's very important to us. If we see somebody actually dismiss a nudge, which means like, "Go away, don't show me that." That is very rare and a huge red flag. So that's because that means they click their mouse up to tell us that this was an inefficiency. And we addressed that very seriously. So we use this kind of terminology as a nudge because it's using that real time, incremental understanding of the documentation being created to say, "Okay, you have these pieces to put together. Can we make it easier for you to provide that documentation?"

[inaudible 00:41:48] It's using artificial intelligence technology. I kind of alluded to this at the beginning of the presentation. Everything that we deliver to the physician is based on these information models that we create. And we have hundreds of these information models. Looking at this one here, this is for heart failure. If you see in the middle, we actually define everything at a snowman level code. We do that because that's the most discreet way that we can slice and dice the data. We actually ended up extending snowman sometimes it's the concept we need doesn't exist yet. And then sometimes they work their way up to where we need them to be.

But that dark gray circle in the middle, those are kind of the traditional attributes of does this patient have or does not have heart failure. This certainty, do they have it or don't they? The temporality is a past or present finding. The finding site as a heart structure. It has the snowman code. So just detecting, we have the existence of heart failure in the documentation. And then that outer lighter gray circle, this is really where we get into the secret sauce because we start defining information models of a heart failure.

We start seeing if we can find labs that they're on, medications, are the radiology findings self supported, actual findings. Can you find evidence of exacerbation? And so the type and [inaudible 00:43:11] has been documented. And it's that lighter gray element that allow us to ask the physicians for the [inaudible 00:43:18] type because it gives them to be able to define that. We put these information models for respiratory failure, pneumonia, kidney failure. And by doing this at a medical condition level, we can really leverage someof those different settings as well.

You heard me mention HTCs again. For that diabetes complication, not only are we defining this diabetes complication once and using it as an inpatient setting, we can use it in the HCC setting as well,

Kaitlin
continued

which has a much different turnaround need for queries. It makes it very flexible, it's also cloud based. As these new measures are coming out, we're able to change those information models very quickly and make sure they're up to date with the latest information. Also for our nudges, we're leveraging the entire encounter documentation. Especially on the inpatient side, we're looking at everything from admit to discharge. So what's documented on previous progress notes, previous labs, what was in the admin, HNP, what are all the elements that we can bring together to present this information to the physician and make it easy for them to do the right thing?

The kind of generic names for all this is this computer assisted physician documentation. You may have heard the terminology CAPD, computer assisted physician documentation. That's kind of the generic industry term. What we've kind of branded our spin on it is CDI Engage. So you're engaging the physicians that's marries it with our custom, incremental, Natural Language Understanding. And then it gives you all those information models to leverage. So kind of when I say CAPD, that's just the act of engaging the physician in real time. CDI Engage and CDI Engage One is what allows us to make the intervention with the physician and use those custom information models to get that impact as they're creating the records.

It's real time, it uses that golden second and has that context awareness as the physician is in their record. We can see we have the awareness of what the CDI specialist has already created a full query form. We know what they're monitoring. We can see how the physician reacts that nudge and send that back to the CDI specialist as well, because that may impact whether they decide to create a full-on query or not. But it's really this proactive technology that we're able to evaluate what's going on in the chart as it's being created.

Finally, kind of wrapping up with this, the evolution of some of this nudges. We use some examples about inpatient nudges. So that heart failure one, can we get the acuity and type you can even see an example on the left hand side of the screen. We call this an actionable message because we actually allowed the physician to interact with a message card and update their documentation with this. We also have a few more examples. So I have in the first one a risk assessment. This is when we integrated with claims and socioeconomic data to say, "Okay, we noticed that this patient as a low risk for pressure ulcer, would you like to start a skin integrity protocol?"

These measures can be used for things like dangerous abbreviations, which is something joint commission still evaluates. We can make educational cards with these. I worked with a health system that worked really hard on a wound care template that they noticed was being under utilized. So we created a nudge that we saw, "Hey, I see you're documenting about a patient's wound. Would you like to use the new wound care template that's available for you in your toolbox?" So thinking outside the box, not just traditional CDI things that maybe you have a query defined set for, but what are other ways that we can use this technology?

And then this also goes into the future of how we see clinical documentation being created. We're working with this ambient technology and it really starts with an advisor. So we say, "Are you able to specify the acuity and the type of the CHF?" We can show that to a scribe, we can show the CHF document guidelines, we can show them that information model. We then can take it to the next step to an agent and say, "Hey, I noticed that you would like to possibly order Zoloft. Can you order that ambiently with the technology?" So not just say create an order for Zoloft, but say, "Hey, so and so, please create an order for Zoloft. We understand that you want 50 milligram tablets by mouth PID when it's ordered and get that all set up for you."

And then finally it goes over to the scribe as well. If you're using that type of workflow we can show any of the information that may be ascribed would be interacting with a physician in real time. So these nudges can be used in a lot of different ways and we see them as the bridge to how we can bring our technology further into the forefront as physicians go into an ambient experience as well in a smart technology.

Kaitlin continued

Going into the summary. This is really, we want to bring together nudges and queries are two parts of the whole. We want to make sure that we can deliver things proactively, real time, but these [inaudible 00:48:46] things are so important that we have to make sure that we're getting them reactively and retrospectively as well. And together, that makes up clinical documentation integrity. Again, it's not nudges versus queries, we wanted to bring home, but how do we get all the documentation we need because it can't possibly be covered at one modality or the other. All right, we'll move on to some questions.

Jared

Great. Yes, thank you so much. Let's move into the Q&A portion of our webinar. If you would like to submit a question, you can use the questions feature and that's located in your web meeting controls. Located in the lower right corner of your screen. And then if we can go to the next slide. While we're waiting for that, for a few questions come in, if you would like any more information about the topics below, I'm going to launch a poll and you can select your top interests there. We'll just give that a minute or two.

While those are coming in, just wanting to say as a reminder a PDF that contains all of the presentation slides is available for you to download. And that's located in the handout section of your web meeting controls. We also recorded today's presentation and a webinar archive will be available. So look out for an email in the next week that includes a link to the archive. And lastly, we will provide a certificate of attendance to webinar attendees and that will be emailed to you upon the completion of this webinar in a few hours. I'm going to go ahead and close that poll. Just a couple more seconds if there's anyone else who wants to submit. Okay. And then if you want to go to the next slide. This is just a recap of what I just mentioned about the handouts recording and certificate and turn the time to Ryan.

Ryan

Yeah, if we jumped to the next slide real quick. Thanks, Jared. Just want to let you all know less [inaudible 00:51:01] two different webinars addressing [inaudible 00:51:05] the implications with HM and CDI departments, diving into the coding and the physician documentation and CDI components. Do you know essential information is related to COVID-19. So if you are interested in that webinar, those are available, the recorded sessions are available. [inaudible 00:51:23] engage.com/covid19_webinar_ [inaudible 00:51:30]. Let's jump into some of the questions that came in. First off, the question is how receptive have providers been to the nudge experience based on the existing customer feedback? So Julia or Kaitlin, if you have any thoughts on that.

Kaitlin

Let me take that. This is Kaitlin. We've actually seen physicians be quite receptive to the nudge experience and I think a lot of that gets credit with making sure we're enabling the right nudges for the right physicians and then the experience of how we deliver the nudges. When we were coming up with this technology, we worked, you know very closely with human computer interaction experts and user experience experts that said, "This shouldn't be in the middle of the screen, it shouldn't be using these colors as text and things like that," and making sure that they were having a favorable user experience type of situation.

Then also making sure that we were giving them nudges that were germane for their subject matter expertise. If we knew that this position was over cardiology that's where we would aim that heart failure nudge. That part became very important to us. I think one of my favorite pieces of feedback is we worked with a nephrologist and he knew what was targeted for him was kidney disease stage. And we started him off with a very small amount of nudges and most of the messages you received around kidney disease.

One of the pieces of feedback we said is as soon as I see that little nudge pop up, I almost don't even need to read it. But I know I have an undocumented stage of kidney disease in my chart that I want to address because I don't want it to come back and be something that slows me down later in the patient encounter. So I think those are two of the really big things, is the experience of how we deliver these messages and then making sure that the content that the physician receives is germane to what they are specialized in.

Ryan Perfect. Then the next question does kind of follow up on that, along the same line. The question was, can nudges be customized or do they change based on their behavior?

Kaitlin Absolutely. 3M has a great level of expertise when it comes to defining the industry standards. We make sure that all of the nudges that we have available out of the box meet the 3M criteria. And then additionally they can be customized. So, not only can the verbiage that appears on the nudge card be customized to whatever the customer likes. Some sites that like to put a, "Please consider documenting," or little nicer language on the card itself or a disclaimer. That can be altered, but also the threshold at which the nudge fires can be altered.

Like I said, maybe for one group of physicians, we want to fire it any time they have an unspecified heart failure, but maybe for another group we want to wait until they have a BMP and ejection fraction and treatment and show them that information before the nudge fires for the heart failure. It's about the verbiage that's displayed can be customized and then the thresholds at which the not just fire can also be customized outside of what we have available out of the box, which already meets very high standards.

Ryan [inaudible 00:54:49] I just need to follow the query practice guidelines such as clinical indicators and other undetermined choices [inaudible 00:55:05] or other undetermined choices?

Kaitlin This is another thing I think Julie kind of talked about when she was going over the query portion, which is making sure that the queries align with your facility guidelines and adherence. Absolutely ,I do see out in the field that people when they're using those actionable messages, so that was the one where they can actually interact with the card and choose the acuity and type we always want to include, I cannot clinically determine option or anything that you would include in those drop downs. Means a single message cards doesn't give a little more flexibility. But those can absolutely be altered. I don't know, Julia, if you want to add anything to that response?

Julie No, I think the important thing is that dependent on your internal policy and how you determine you want to manage and store any of those clarifications that you have the opportunity to do that to follow your internal policy and keep it consistent. Again, to Kaitlin's point, depending on what the content is that may determine that it's handled one way as opposed to another.

Jared Perfect. Julie, this, this next question might be best for you. It says, with regard to physician burnout that was described earlier, at our facility we have received feedback to the queries sent are too wordy and take too long to read through. Do you have any suggestions?

Julie I think that what I would do if I were looking at what do they mean by too wordy? I might need some additional information on what that means. And maybe looking at those queries and comparing them to other query templates that we have reference to out in the industry is a way that we could clean up and maybe consolidate some of that information. Like making sure you have a streamlined query that shows you the clinical indicators that we're speaking to and then making sure of course that we give the physician the choices that are needed. But there are ways to go ahead and make it more streamlined. So, I probably would take a look at some examples and see how I could make it more concise for the physician.

Jared Sure. Well thank you both, Julie and Kaitlin. This was a great presentation, a lot of really great material. I know there were several questions we didn't get to. For those of you whose questions we didn't respond to in the live webinar, we will look to follow up by email. So thank you again for submitting those questions. Be on the lookout for our response in the coming days. And thank you everyone for joining us again. I hope everybody stays safe, stays well, and we look forward to seeing you in our next CDI Innovation Series of webinars. Thanks and have a good day.