Improving Diagnostic Quality and Safety/Reducing Diagnostic Error: Measurement Considerations Committee Web Meeting 2

Moderator: Kim Patterson
October 9, 2019
1:00 pm CT

(Dezi): Welcome everyone. We want to thank you for joining and thank you for your patience. Welcome to the Reducing Diagnostic Error Project. This is our committee Web Meeting number 2. I'm going to go ahead and get started. I…

Operator: Welcome to (unintelligible) by Century.

(Dezi): If you would please just mute your lines as well as your computers. We'll be ready to get - we can go ahead and dig in to our agenda.

Operator: That entry is not valid. Please enter your access. Thank you. Please stand by. You will now be placed into conference. This conference is being recorded. The conference has been muted. The conference has been muted.

(Dezi): We're going to mute all of the lines now just so that we can go ahead and I just want to remind everyone before we take it off mute when we do our roll call to please mute your computers as well as your phone lines when you're not speaking. You'll be able to follow us with the - through the phone and listen to the presentation. Visually you can follow along on your computers so there's no need for your computer's sound to be on.

So just to jump right in with our agenda we're going to go over our meeting objectives. We're going to - we're hoping to finalize the environmental scan today and look into the updates to measurement framework. We're going to brainstorm some possible use cases and we'd like to review the proposed outline of use cases. We will provide an opportunity for public comment towards the end and we will make sure that we give you your next steps and marching orders moving forward.

So as we mentioned last - our last Web meeting last week for those of you who are new to the call we just want to welcome you. This is your project staff. We have Andrew Lyzenga who's our Senior Director, Jean-Luc Tilly who's our Senior Project Manager. I'm (Unintelligible), your project analyst and we have (Jesse Pines) who is our consultant on the project. So at this time I am going to unmute all the lines so that you can do - so that we can do a roll call just so we're aware of everyone who is on the call. So you will need to provide...

Operator: The conference has been muted.

Dezi: Unmute your lines before you can...

Operator: The conference has been unmuted.

Dezi: So we're going to start with our co-Chairs. We have (David Andrews).

(David Andrews): Here.

Dezi: Welcome (David). (David Newman-Toker)? (Flavia) (Unintelligible)?

(Flavia): I'm here.

Dezi: Hello, welcome. (Karen Cosby? (Sonali Desai)?

(Sonali Desai): Here.

Dezi: Welcome. (Jane Dickerson)?

(Jane Dickerson): I'm here.

Dezi: Welcome. (Andrea Dohatcu)?

(Andrea Dohatcu): Can you hear me? Hello?

Dezi: We're getting a little feedback. Can you please - there we go, someone needs to mute their line, there we go. Yes is that (Andrea)?

(Andrea Dohatcu): Yes, here.

Dezi: Okay thank you, welcome. (Mark Graber)?

(Mark Graber): I'm here.

Dezi: Welcome. (Helen Haskell)?

(Helen Haskell): Here.

Dezi: Welcome. (Cindy Hou)?

(Cindy Hou): Here. This is (Cindy Hou).

Dezi: Hello (Cindy Hou), thank you. (John James)?

(John James): Here.

Dezi: Welcome. (Joseph Kunisch)?

(Joseph Kunisch): Here.

Dezi: Welcome, (Unintelligible)? (Kathy McDonald)?

(Kathy McDonald): Here.

Dezi: Welcome. (Lavinia Middleton)?

(Lavinia Middleton): Here.

Dezi: Okay. (Craig Norquist)?

(Craig Norquist): Here.

Dezi: (Shyam) (Unintelligible)?

(Shyam): This is (Shyam) here.

Dezi: Welcome. (Ricardo) (Unintelligible)?

(Ricardo): Here.

Dezi: Welcome. (Roberta Reed)?

(Roberta Reed): Here.

Dezi: Okay, (Unintelligible).

Man: I'm here, thanks.

Dezi: Welcome, (Colleen) (Unintelligible)?

(Colleen): Here.

Dezi: Welcome. (Michael Woodruff))?

(Michael Woodruff)): Hi, I'm here.

Dezi: Okay and (Roland Wyatt).

(Ronald): (Ronald), I'm here.

Dezi: Hi (Ronald), sorry about that. Okay welcome, thank you for joining. And just to see if we have any of our federal liaisons on the call (Andrea Bennen)? (David Hunt)?

(David Hunt): Hello I'm here and I'm M.D., not PhD. I'm not that smart.

Dezi: Okay thank you. We'll make sure we make that update and (Marsha Smith)?

(Marsha Smith): Hi, I'm on the call.

Dezi: Thank you. Welcome. So at this time we want to thank everyone for joining and I'm going to turn the call over to Andrew and he'll get started.

Andrew Lyzenga Thanks (Dezi). Can you hear me?

(Dezi): Yes, perfectly.

Andrew Lyzenga Okay great. So we're actually - we're going to try to skip over the environmental scan piece. We don't really have any substance of uptake at this point. We do want to note that we really appreciate a number of links and references and resources our committee members have sent over to us. Those are really helpful and we'll be working to incorporate those into our environmental scan and hopefully will give us some additional material to help us as we move forward with these cases, and resources and tools and that sort of thing. So that would be very helpful but not really anything to update you on at this time with regard to the environmental scan beyond that. And I think we want to spend most of our time on this call trying to kind of work through use cases, doing some brainstorming and seeing if we can get a little closer to sort of nailing down what those uses - use cases are going to be focusing on just so we can sort of dig into those, the work of that itself. So, just one moment.

Our - one of our co-Chairs, Dr. (Newman Toker) who unfortunately can't make the call today but he did do some really great work in sort of framing up some potential you know, use cases or approaches to the use cases for us. And I'll try to kind of walk through that as best I can right now on his behalf since - so as (David) had mentioned we want to try to get as much core coverage with these cases as possible getting, you know, representing a number of different dimensions in these use cases including patient demographics, disease groups, clinical settings. We want to make sure we can have some recommendations and use cases are applicable across settings as appropriate. Different encounter types, you know, sort of adverse events as a result of the

diagnostic errors.

We want to make sure that we're addressing different contributors to the errors and clinical factors, cognitive factors and others and get as broad in - or comprehensive as possible solutions to those - to those errors that we're focusing on with these use cases. We also want to pick some scenarios that are relevant to important issues of public health that are - have some sort of connection to clinical practice and have at least some evidence that we can point to the support measures and solutions. Go ahead and skip to the next slide.

So as Dr. (Newman Toker) had presented on the last call we had sort of started out first thinking with a starting point of sort of four broad categories looking at first maybe use cases focused on some - largely on the inpatient setting, on potentially infection or critical illness related to critical care. The second maybe a case of an emergency department, the third being related more to primary care and the (unintelligible) situation where you need to sort of sort through those issues potentially a cancers of the sort. And then the fourth being both primary and specialty care maybe focused on a rare disease or sometimes called a diagnostic odyssey.

We sort of had some discussion with our co-Chairs after that and with our GTLs, our governor partners and we wanted to kind of reframe this a little bit so that we're - what we want to try to do is not focus too specifically on clinical conditions as the focus of the use cases and rather kind of flip it a little bit to focus more on a type or I think (David) (unintelligible) referred to it as an archetype of diagnostic error. So if you want to skip to the next slide I can show you sort of how we reframed that a little bit.

(Dezi): Sure. Andrew before you move forward, it looks like (Lavinia Middleton) has

her hand raised.

Andrew Lyzenga: Sure. (Lavinia) you have a question or a comment?

(Dezi): (Lavinia) are you on mute? Okay well we'll keep going. We'll chat with you. We'll move forward and we'll follow back up with you in the chat box.

Andrew Lyzenga: So yes. As I mentioned we kind of wanted to reframe it rather than focusing on specific clinical conditions for each case, sort of focus on the error itself in some sense or at least - you know, the contributing factors to the error. So the way we sort of rethought about it here is maybe - and I'll go through these a little bit more in a little bit more detail in the following slides. So for one case maybe to focus on issues of information overload and in complex, critically ill patients we want to try to find. And for each of those, or for some of them, you know, focusing - trying to think of what the actual error might be whether it's a failure to diagnose, the (unintelligible) diagnosis or that sort of thing, or an inaccurate diagnosis.

So hopefully we can talk through that a little bit. But these are sort of, you know, the general issues we focused on with each of these use cases which again will have many different sort of solutions that will feed into them. There will be many different factors that play into and cause the particular errors that we're thinking about. But these are sort of the - again we sort of talked about the archetype of error that we want to focus on for each use case. So the second one maybe okay, so we just talked - I think it's okay to just sort of talk through. Go ahead and skip to the next page. I can talk through each of them in order.

So the first one being again looking at a complex, critically ill patient and having this sort of situation as information overload. You know, it's obvious

the patient is sick but there's so much signal, (unintelligible) signal that it may be easy to miss an important underlying disease. And the way we - this is sort of laid out as you know, a potential way of structuring the use cases, sort of first laying out the context, the diagnostic challenge sort of at hand and then to sort of draw the causal factors. Which again we'll be more than just are listed here. These are just some examples to get us thinking. So some potential causal factors in this instance might be socio-cultural barriers, (unintelligible) diagnosis including potentially the patient, again cognitive overload, competing demands and workload. And then we want to take a look at potential solutions in this case maybe, you know, and again we'll try to come up with a comprehensive and diverse list than this but just sort of something to get us started. And here we might want to try to work towards enhanced teamwork, (improved) data visualization tools based in the HER- making use and leveraging data, machine learning and that sort of thing. I think for each of these we want to sort of root it and we come - something specific or specific or a clinical scenario to make it - make sure it's tangible and that we can actually - somebody can pick it up and apply it so a situation.

So we want to come up with I think some case examples. In this case maybe some hospital (unintelligible) cases like sepsis, or vascular events like pulmonary emboli or hemorrhages internally. Maybe we can pause here and talk about - a little bit about each of these as we go through them. Are there any thoughts on this, maybe if it's - or maybe we can stop to say ask whether this general approach makes sense and then kind of talk about this particular case and see if this makes sense to you, if you have any thoughts about any particular clinical scenarios that we might be able to apply here. So then just open it up to see if anybody has thoughts on the approach here in general, if this makes sense, sort of the way we're reframing this or if you have questions or other comments or concerns.

Man: This is (Unintelligible). I'd like to make a comment.

Andrew Lyzenga: Sure.

Man: Okay, (unintelligible) causal factor, number 1, kind of (unintelligible) data (unintelligible) knowledge in the clinician (unintelligible) fall under cognitive overload in a broader sense but as a patient advocate, I've not been terribly inspired by the mechanisms that are in place for clinicians to keep current in all the details of their specialties.

Andrew Lyzenga: I think that's absolutely an appropriate issue to bring up and draw out as we move forward. And certainly I think we ought to look at issues of, you know, education and training and for continuing education and making sure clinicians and providers are you know - the best ways we can take to - to keep you know, clinicians up to date and potentially, you know, some other solutions like clinical decision support and again making use of big data and that sort of thing to bring in knowledge that individuals may not have. But I think that's very much within the scope of this and a good issue to bring up as we (move along).

(Ronald): Hi. So under cognitive bias, is that inclusive of all heuristics or (unintelligible) bias, or confirmation bias, or...?

Andrew Lyzenga: Yes, and I think probably as we try to hone in on some specific scenarios or cases here we'll want to look at the range of different types of bias and heuristics are used in these scenarios and maybe sort of draw out the ones that are maybe most relevant or applicable. But certainly I think it won't be limited to probably one or two - even - maybe. But that's something we'll want to discuss, sort of what the typical types of bias that might lead to the error we're looking at would be.

(Helen Haskell): So this is (Helen Haskell). I think all of these use cases are missing a dynamic of patient (input) which if you ask patients is usually a primary cause of diagnostic error.

Andrew Lyzenga: Could you say that again? I'm sorry. I missed part of what you said. If you can just repeat that first sentence.

(Helen Haskell): Yes. I said I think all of these use cases are missing patient input as a cause - lack of patient input. I think patients tell us that's a primary cause of diagnostic error across the board, not in the hospital as well as elsewhere. So I think that's really critical.

Andrew Lyzenga: Absolutely, totally agreed. And I would add families to that especially in the critical illness.

(Helen Haskell): Certainly family.

Andrew Lyzenga: Thank you (Helen).

(Helen Haskell): And the other thing I would say is people and it ties into what (John) was saying, people following protocol. So there's structural reasons behind this too. People following protocols that they may be following incorrectly or the protocols might have built-in bias. So I think that's another issue and it ties in with undertraining or people working beyond their knowledge which is very common in hospitals.

Andrew Lyzenga: Thank you. Yes I would reiterate that we certainly don't want to lose that issue of, you know, listening to and getting information from the patient. I'm certain that will be a factor in each of the use cases - any use case we select

and we can sort of, you know, the causal factors and solutions. Everything here is really just sort of a first pass at giving a few little things to just get us thinking and to sort of illustrate how we might be thinking about these things. But certainly they're not meant to be comprehensive and that I expect will be a major sort of factor in each of these use cases. We very much - right to bring it up so we won't lose sight of that by any means.

(David Hunt): This is (David), (David Hunt). I think it goes without saying almost that this first one, the complex critically ill patient is probably the hardest of all the use cases. And I'm not sure if we have a good sense of if you took a distribution of all diagnostic error, how many - you know, what percentage would fit in this. But I think this is going to be the toughest of all, not that we shouldn't do it but I think that this is one of the - clearly the toughest of all and I just wanted to put one pin in (Helen)'s comments, that while it is true that following protocols and/or algorithms can lead one astray particularly if it's an inappropriate use of the algorithm but it tends- in my experience I've seen that not following protocols and/or algorithms, it tends - where people are freelancing so to speak tends to cause at least as much if not more of a problem.

Woman: Well you're absolutely right (David) (unintelligible) yes.

Woman: Hi it's (Unintelligible). I have a suggestion that perhaps instead of looking at a critically ill patient, it may be useful to go draw attention to a complex patient who is de-compensating on the floor and with some diagnostic challenges that they have dimension. So perhaps they've been given an agent such as (Adenin) and (unintelligible) which unfortunately masks what they're really expressing that they could have an occult cause of hospital acquired sepsis. And then you could bring in the teamwork with the nurses and the missed signs of tachycardia (unintelligible). And sort of I would suggest probably a

hospital acquired sepsis from aspiration pneumonia on a floor patient who perhaps they were originally in the ICU and the original illness recovered but then they remained in the hospital for sub-acute rehab - disposition reasons and they acquire a secondary infection.

Man: (Unintelligible), sorry go ahead.

(Bobbi Reed): This is (Bobbi Reed). This is the first time I've been on the call. I missed the first call because I actually had to have surgery. I had to have a brain tumor removed from my sinuses. It took over six months to figure what was going on. It actually - it could have come to fruition. I was at the NQF annual meeting and tripped and fell when we were going out to dinner. And I didn't go to the hospital to get it checked out but through a series of events after that it became (known) after I finally found a doctor that could diagnose this properly and help me that all of the sudden something that wasn't a big problem, was really a big problem. And I found it very difficult through all this whole thing - you talk about information overload and too much information and absorb everything, communicate with my doctors. I noticed that I didn't see communication between the patient and the doctor too much on this - with the things that you have there. And I really do think that somewhere you need to fit that in there because it's not there. And I noticed myself personally, I kept a log of everything that happened to me along the way. And everything drives back to the fact that there was - even though I attempted to communicate and get the answers, it seems like my specialists, the doctors that I ultimately found, were so focused on all the sudden this one thing, they didn't want to hear about the other thing that I thought that really mattered. And they couldn't explain to me why it didn't matter because it didn't matter to them and what they were dealing with, with me. You know what I mean?

So this is like - what I'm talking about here is very personal and like I can understand what you're saying here but I don't see the patient in here at all, you know, like communication between the specialist or the doctors and the patients.

Andrew Lyzenga: Yes again - thanks that will be very much an important part of these use cases. We certainly didn't mean to de-emphasize that in any way. And just to sort of - as we talk about on the orientation call we'll be sort of over the next - roughly the next year or so we'll be trying to flush out each of these use cases, again looking at what the causal factors are and what the potential solutions are. These are just the - just as sort of - germs of the ideas here I think we can think of them. We'll be having much more to this and again would anticipate communication between patients and providers will be a major aspect of every one of them and we certainly didn't mean to miss out on that as part of these slides. But rest assured that will be something we address very much.

Man: So this is (unintelligible). I was - cautioning all of us because I'm finding myself doing the same thing. Looking at that list of four things and I'm already coming up with diagnoses and/or treatment plans and such and if we're trying to figure out why we're making errors in diagnosing, we started down that path way too far by giving too much information on the cases. And we should be approaching it as this the first time this person is presenting or has a symptom and how do we then start down that diagnostic pathway, hopefully down the right pathway and not the wrong.

Andrew Lyzenga: I agree. So would you suggest we start - again this is sort of to just get us started, trying to focus in on what we're going to be talking about in terms of each of these use cases. And so we can talk some more about how we're going to approach sort fleshing out each of these use cases and, you know, coming up with the causal factors and the solutions, et cetera. What do you suggest

sort of as process wise starting with sort of presentation of the patient and you know, as we you know, are kind of working together in groups talking through how that sort of then plays out. Sequentially is that kind of what you're saying?

Man: I guess, yes as a physician that's how you're trying to think, is you're given this information and then move on with it. So maybe the suggestion would just be - and I don't want to use the term dumb this down but even back up to just presenting symptoms of some use cases, that have led to a lot of known diagnostic errors like patient presents with abdominal pain and two, three, four other symptoms. Or a headache patient or a dizziness patient, you know, kind of like one of us on the call who maybe we could even try to dissect a diagnostic journey like that. But I suppose once we break it down we could take the case in any direction that we want to, to try to help (tease) out some of those things.

Man: Something we struggled a little bit in with is how to kind of straddle that line of not focusing in too much on a particular clinical condition and - because we want to - we do want to keep our focus on types of error. But you know, you - once you (unintelligible) that premise specific clinical scenario and get a little bit less useful and less tangible, I wonder if - I believe we have our - one of our government (task leads) on the phone (Laura deNoble). Would you mind sort of maybe talking a little bit about how you're thinking about you know, the use cases and what you're hoping to get out of them?

(Laura deNoble): Sure. Hi everybody. Thanks very much for asking. So the work of the (task order) is to take a look at some really high prevalent high priority type of errors and then design use cases kind of around the error itself, like how could we prevent this from happening? How can we resolve this error? So something that you know, in a report that pretty much, you know, across the

board, different settings, different population, someone could pick up the report and say oh gosh, this has happened to me. I've had these errors. It might not be in my particular field or, you know, setting but this is kind of an outline, what's the work is a great outline for me in my particular area to head this off at the path and make practice changes or to really use the report to put in (substantive) changes or you know, process changes, whatever the type of resolution that the community comes up with in their own practice. So to kind of get a really - a really granular but also global resolution of a problem that a lot of different stakeholders can use.

So that's why we're trying to keep it a little bit away from condition specific and we're trying to keep it like, a little bit away from a starting point of a particular setting. But all of those settings, like I just heard today a great one with regard to, you know, escalation of care and not recognizing the need for escalation of care or not having all the tools and all the information which is something that I really - I mean, I've had those circumstances but I wasn't thinking in this context. So just trying to get a - trying to get a sense of what the error is that you're trying to you address. So if it's a misdiagnosis how do you address misdiagnoses in different settings and then using - you can use clinical conditions, clinical vignettes of course to bring the information home so that people understand oh yes, I can see how that can happen.

And then we are looking for measurement as well. So you know, how you can resolve some of these diagnostic errors and hit them off at the path and then what kind of measurement would be important to look at as well.

(Slavia): This is (Slavia). I don't understand that. I have a hard time understanding what can be a description of a problem that's both globally applicable but also granular across all different levels of care, across all different fields of medicine and that we can apply some cross cutting understanding of and apply

the same sort of solution for it. I mean, it seems like...

(Laura deNoble): Perhaps - I was going to say that perhaps something like follow up of test result, you know, across all settings, all different conditions. That seems to be a cause you might say or a diagnostic type error that people don't follow up on the test result. So we're thinking more of that in terms of an error but certainly you know, there are other what you would say factors or diagnostic errors that might fit into misdiagnosis that you could be looking at.

(Helen Haskell): This is (Helen) - oh go ahead. I'm sorry. I don't want to change the subject. Go ahead.

(John James): This is (John James). I'm sitting here thinking that I'd like to throw out the idea of nutrition as an important backdrop to a lot of this. What I read in the literature, which is very limited, clinicians are not trained to think in terms of nutritional deficiencies. These are often missed and they are very important (in terms of) patient wellbeing. What are the thoughts of that area? Is that a kind of global thing that would cut across all of these?

Man: Certainly. It could be (unintelligible).

Woman: No. I would add to that - I would add medication reactions. But the comment that I had is when you're talking about heading the misdiagnosis off at the (path), I think it's also important to think - to have something to help people revisit misdiagnosis because when patients get on the assembly line, it's often really to change the path down which they're headed even when it's the wrong path and everybody defers to a prior diagnosis. So I think that is another area in which a use case or this sort of information can be really helpful.

Man: Thank you. Any other sort of thoughts or reflections on - through how we can focus in on use cases that as (Laura)'s suggesting that will be useful and practical for you know, providers who wants to pick up the report, you know, say I've had this problem or something later can be useful and how can we you know, address and resolve the issues that might lead to this kind of error.

Man: Who are we writing this for? Are we writing this for individual positions? Are we writing this for hospital systems or for payers or for government regulators? I mean I think depending on who the intended audience is, I think that what we put in the use cases will be different.

Andrew Lyzenga: Right. I hope they'll be applicable to some degree, you know, across various stakeholders that can certainly - we would like them to be useful for individual clinicians or group practices or health systems or hospitals, to providers generally to be able to take the recommendations and apply them in their own practice potentially for, you know, other improvements like health plans or payers to sort of use potentially as leverage to help put in place changes in policies or practices to help avoid diagnostic errors if that makes sense.

Man: Andrew this is (Unintelligible). This is pretty similar sort of question that I had raised last week or whenever that was. I think we need to rethink what the output is going to look like and again who's going to use it. And if the audience is going to be different I'm wondering if each use case will be relevant for that critical audience for them to do some actionable staff related measurement in solving the problem. So I'm wondering now rather than thinking of - I'm not saying you have to sort of uproot everything and start over. I'm just thinking can we sort of target one of the use cases more to sort of the clinical, the frontline clinical audience, you know, the team. One could be more to the health systems and the patient (safety professionals) as

healthcare organization. One could be for payers and regulators or something like that. Because in all of the intended audience - because this is a shared responsibility, right? Fixing this problem is a shared responsibility and I'm sort of figuring out that each of these cases is going to be tons and tons of information and there's just about everything (unintelligible) the person who made the last comment. I'm sorry I missed your name.

So (unintelligible) a little bit of help they work - try to put everything in the same (broth) and I think we're going to lose the audience really quickly. And I would suggest that we focus on what the output might look like for a critical audience that we're interested in and then match the use case scenario to that critical audience so they can do some actionable steps in terms of measurement as well as reduction. So if I'm a clinician and maybe I'm working in the ICU, I need to be able to see what my common types of problems are, how I would measure them and what I would do something about it.

If I'm a regulator or a payer these are the types of situations that I need to be able to detect and do something about or - and if I was a healthcare administrator or maybe a patient safety officer at an organization, you know, here's what I would be able to do. I think there are some informatics people on the call, here's for the informatics audience. Here's the stuff you can do in terms of an audience. I'm just wondering if that conversation would help us narrow down - sorry for the long rant

Man: Yes that's an interesting idea. (Laura) did you have any thoughts or reflections on that, sort of targeting the various use cases to an audience?

(Laura deNoble): I think we would like probably not segregate in that way if at all possible. Certainly it's something that we can take back to our leadership because we

do want to have more than just one use case, you know, like for clinicians. So it's something that we could into but I think, you know, we really - I think we're really focused on making sure that I know pretty much the general health system, clinicians, maybe rural health as much as possible that we can help inform them on diagnostic error rather than to have one, you know, segregated use case but it's something certainly we could look at as an approach.

Man: Yes. Let me clarify it. And that would not negate the fact that the use case would be not relevant for clinicians. So if you have a use case for regulators in a healthcare organization, that's not going to make it useless for clinicians. It's obviously relevant because of the clinical, sort of the diagnostic error. It's just the framing would be a bit different. The other thing I was going to say, I think I was hearing some of discussion on maybe focusing on process type breakdowns so failure to close the loop or failure to (unintelligible) and that would be another angle, how you could sort of frame this. Because I see a lot of information being considered for just like one use case which actually might be relevant for all use cases. So a lot of the things that people have brought up in the last hour would be relevant for maybe the other use cases too.

(Mark Graber): This is (Mark Graber). I'd like to make a comment. I understand the goal of trying to cover as many bases as possible and address as many of the stakeholders as possible and that's terrific. But are we going to be making up cases or are we going to try and pick cases that have already happened and that we know about and have been in the literature? I think that would have more impact, to pick actual cases and I think we'd be able to cover all these bases but I'm not sure. So was the plan to make up cases or to try and find existing cases?

(Laura deNoble): This is (Laura) again. The issue is giving in the report guidance for resolving diagnostic error problems via use cases. So you know, I could see if you already have a clinical vignette and you know what the diagnostic error is, a comprehensive resolution of that error in a report is something that we're looking for. So again I'm trying to get back to closing the loop, that can be considered a diagnostic error, not following up on the test results. Those are kind of buckets of error so kind of would like to you know, get your feedback on those type of errors versus the way we have the structure now as far as starting with use case 1, not enough knowledge. If you all can provide any guidance on a specific approach for titling and heading the use cases. I know Dr. (Sing) you did suggest that but I think we're - I think that would be helpful if we had an idea of where our starting point was.

Are we starting with, you know, a particular error? Are we starting from above like okay, we want to work on misdiagnosis and a big part of misdiagnosis not following up on test result, you know, a structure like that might be helpful but we'd like to hear from the committee what would be best as far as trying to resolve really high priority - high priority diagnostic errors in a report comprehensively that stakeholders can use. That's the big part and we're trying to get to that part. So any kind of framework that you can think of would be really helpful.

(Joe Kernan): Thanks (Laura). This is (Joe Kernan). Everybody's talking, I'm kind of thinking through the scope of this also and the measuring the actual quality and (that) related to diagnosis. You have primary diagnosis, your principle diagnosis, your - and all your secondaries to follow. At our organization we code out up to 25 different diagnose and we have patients in our academic center that might be there one month, two months especially in the trauma area. So any of those diagnosis say infection that turns into sepsis can happen anytime in that time period.

So you have to define when you say you know, a diagnostic error, a misdiagnosis, you know, to the point where the infection should've been treated earlier before it got to sepsis. Where in that point of care does that happen? We know a lot of this happens in the ED but there's also all these other diagnoses out there. So if it's going to be measured you have to define where in the diagnosis and where in the course of care it would happen.

(Mike): This is (Mike). I've been thinking during this conversation about what would be helpful in our health system and as an output. And I think use cases that are broad but allow, that are applicable to at least two or more clinical conditions or diagnoses and that provide a measurement framework and solution that are kind of light to touch, easy to apply, don't take a lot of - a huge amount of resources to apply so we don't have to do this huge here's our build to start the measurement. And that it allows some practical, operational and workflow solutions, to prevent these errors from harming patients. And also start to allow a national benchmarking solution - say here's where we are nationally compared and then here's where we go. That's the kind of output to me that would be really - that we would really benefit from in the next few years.

Andrew Lyzenga: Thanks. So does that trigger any thoughts from any others?

( ): Andrew, this is (Mark). It seems to me we could make up a grid of on the top - all the 20 different things you'd like the use cases to hit and then start considering specific cases and see how many of them are covered. And if it turns out there's some big holes that none of the cases cover we'd have to go out and find some of those.

Man: So what do you mean in terms of like, sort of what would be across that grid, the errors?

( ): The grid would be the desirable things to want them to hit. So it might be all of the stakeholders. It might be all of the issues. It might be the different settings. You know, we've identified many different desirable qualities and points that we'd like to make. But I think at the end of the day we're going to have to match these up to specific cases of diagnostic error that illustrate and get you to those considerations.

Man: Right. Any others find that useful? I think we can try to put something like that together.

Man: Yes. I think the other - maybe another axis on that grid would be you know, the top 20 types of errors that we're talking about that lead to the most harm or the significant harm. Obviously we can't create a document that touches on each and every different one but if we try to strategically tackle those that we either have solutions for or aware of as a start then we can start to match up the cases a little bit better. Also ask Dr. (Cosby) because I know she and (Pat Cross Gary) actually wrote a book called Diagnosis Attributing The Shadows which has several - multiple use cases on diagnostic error. So maybe we could dip into some of her experiences, with how they came up with modeling that book.

Andrew Lyzenga: Are there any thoughts from the committee on you know, some potential ideas on what those types of errors might be, the ones that cause the you know, the most harm or lead to the most sort of adverse events, that sort of thing?

Woman: (Hardware) and technical protocols can produce diagnostic errors and can be by itself or large (unintelligible).

(Jesse): Andrew this is (Jesse). One place we could potentially start with the - with

some of the framework that (unintelligible) diagnostic error. So that could be a way to make sure that we're covering a lot of the major areas at least a lot of major clinical areas.

(Laura deNoble): Yes, thanks very much for that. This is (Laura deNoble) from CMS. Just to put out there that the use cases are supposed to reflect high priority example or high priority problem of diagnostic error. So you know, we do want to have the problems or the errors that are causing certainly the most angst among clinicians and patients.

(David Hunt): Hi this is (David). It sounds like we need - this needs to be a data driven decision rather than individual anecdotes. Do we have a listing of say, those areas? It doesn't have to be complete and comprehensive, some of the high target areas that are causing problems. I know from my own specialty, you know, cancer in particular breast cancer is one area that is constantly coming up in terms of diagnostic error. Perhaps if we had that list to sort of sort of target rich diagnoses and/or scenarios we might be able to piece this together using some data if that might be helpful.

Andrew Lyzenga: Yes, this is Andrew. And sort of - I think where Dr. (Newman Toker) had sort of gotten his informal framework here for creating these sorts of initial scenarios. He - there was a paper that you sent to us and we can circulate that to the committee. I think he talked a little bit about it on the last call. I'm going to see if I can pull it up, the sort of big three.

Man: Andrew, can I interrupt you?

Andrew Lyzenga: Yes go ahead.

Man: That data was based on malpractice claims which that most of us know are not

generalizable for the population. And I think that the sort of overall carriers are probably true they apply (unintelligible) primary care, I'm pretty sure cancer is going to be rare there. But so with several other types of conditions. So in our study of primary care in two different types of settings, there were about 67 different types of diagnoses that were missed in the (unintelligible) diagnostic errors that we studied. And none of those were more than 6%. And these included missed heart failure, missed pneumonia, acute kidney injury. There was a bunch of other things. So depending on what setting you look at you get a difference spectrum if you look at the study. So when you extrapolate some of the individual cases out and let's say cancer shows up (unintelligible). When you look at individual cases of cancer, even in those cases, cancer is really high. Cancer is definitely (unintelligible).

The others are you know, we could just do like you were trying to do earlier (unintelligible). I think I would be okay if you get a representation of things like strokes or MRIs on the ambulance, things like that. But (David) to your point I mean, there's sort of not a specific list of here are the five target conditions that we can categorically say comes from observational data. There are multiple studies on these. They're most (unintelligible). I know the malpractice data sort of puts this together and for the last 20 years we've known that cardiovascular infection (unintelligible) all of these show up. (Unintelligible) has a study where he asked a whole lot of clinicians and similar type of common conditions showed up on his list for the top ten. There's studies from ER about some of the things (unintelligible).

Man: So I guess that gets back to your point in terms of thinking about or looking at settings in particular to help guide us in some ways.

Man: I mean I think so. And maybe look at some of the process breakdowns. I heard - I think I believe (Laura) said tell us what are the high priority conditions

(unintelligible) occupation for instance about the primary care (unintelligible) setting. One of the biggest problems they have is sort of with the doctor/patient or clinician/patient encounter where they feel that they're not able to get the story or the clinician doesn't get the story in. That's one of the process - I think Andrew talked about (unintelligible) the framework. That is one of the points of the framework, the five things that we have in the framework. That's just one thing. Another one is follow up with test results. So you could also fortify sort of looking at a process as breaking down.

Man: Maybe we can go back to what is it, I think slide 13, take a look at the five scenarios Dr. (Newman Toker) had laid out again. And see if that - taking a look back at those and seeing if that helps draw any thoughts, given what we've just been talking about if any of these you know, or kind of meet what we're trying to look for. This third one, the failure to close the loop on diagnostic test results. That's a fairly specific tangible error and probably you know, could apply across settings. The other one's maybe a little bit - you know, sort of more setting or condition specific.

(Helen Haskell): I'm just looking at (unintelligible) this is (Helen). They really seem almost too specific like for example, atypical clinical presentation (to dangerous diseases). But what if there are typical presentation as a disease that someone doesn't usually see. Information overload is certainly not the only problem (unintelligible). And as you said closing the loop fits across everything.

Man: I think maybe that fifth one was in some sense intended as sort of address that issue of a missed diagnosis or maybe a common condition that sort of wasn't' caught appropriately.

(Helen Haskell): I'm just seeing the number 2. I'm just thinking of Ebola, a typical presentation of the disease that no one ever expected to see.

Woman: Would it be better just to have an oversimplification of just use cases which just exemplify a diagnosis as delayed, wrong or missed and then to overlay with some of the themes that are kind of sub-themes of these five cases?

(Laura deNoble): Hi this is (Laura) again. I think that was sort of the idea, the thought on our part because those would get into the actual diagnoses, you know, the actual problem that could be resolved. For example like you have a - there's a slide about the odyssey, you know diagnosis which is you know, can be a really difficult thing but that would come right to the diagnosis delays and diagnostic testing. It would get to all the issues but the, you know, the diagnostic error would be, you know, the delay in diagnoses and how can you - how can you prevent that from happening and show how that could be prevented in a use case.

Man: So would that focus on a particular or condition or you know, maybe a few - a set of conditions that maybe - have similar issues to address. I'm sort of worried about that being a little over broad.

(Laura deNoble): Certainly you could narrow it down and show different conditions or different settings in the clinical vignette side or you know, in information for that use case but certainly it would be very broad at the top and you can go narrow instead of sort of the other way around. Take a condition and look at what we want to fix about that condition with some of the issues that are listed on the slide.

Man: So the top, the sort of line issue would be misdiagnosis?

(Laura deNoble): Yes or in the case of the odyssey delays in diagnoses. That might bring in things like issues with differential diagnoses, how that all comes about. It might bring in other things, delays in testing, delays in follow up but that sort

of - that's a huge broad diagnostic error so it would be interesting to look to see as you were saying what the top diagnostic errors are in other documents or in malpractice. What are the big buckets of diagnostic errors? And then if...

Man: (Unintelligible), go ahead.

(Laura deNoble: I was just saying then narrow down because obviously the big buckets are you know, misdiagnosis, inaccurate delays, those types of things. But start from that framework and narrow it down into individual whether it's a delay in diagnostic testing, the individual parts that are errors that are kind of errors that fit into that big error across condition.

Man: I just want to push back a little bit when I think of that missed, delayed or inaccurate it doesn't - that's not functionally useful in my mind to me when I'm trying to offer (unintelligible) improve, to take care. And so I actually - I'm just going to ask the question. Are these categories close enough for now that what we need to do is get our workgroups to start digging in and looking at the literature into these areas and then there'll be some modifications and come back with a next or detailed look and say okay, do we have the high level right and do we have the - are we getting close on the details. I'll just throw that out there.

Man: (Unintelligible).

(David Hunt): Hi, this is (David). That might be a way to start at least, you know, to start the first iteration and we can circle back around to see if the approach, provides some way to systematically categorize this and then move on. I think that would work from our standpoint and again we'll - I think we're hoping to kind of get some workgroups together, have some work - do some work online, rather offline. We can certainly do some sort of prep and give you some

material to do that. But I think that might be a good way to move forward, start to see if we can (unintelligible), look at the literature, (unintelligible) out a little bit and then look back and see if we're going down the right path or if we need a course correction or need to up a level or down a level, that sort of thing. Does that work from others' perspective?

Man: That would be fine.

Man: Yes, I like that.

Man: Well we can - maybe we can then sort of walk through each of these a little bit more just to give you a sense of what the initial thinking was and then we can again do a little work here after this call and then loop back after that. So we talked about the first one already. So the second one, the atypical clinical presentations of dangerous diseases so patient's presenting with common symptoms but that may actually be reflecting an uncommon or dangerous underlying disease that's presenting in unusual or non-classical ways that are mimicking more common conditions. Here again have the issues of cognitive error, bias, potentially inadequate training or feedback, evidence overload or some have suggested some over reliance on sort of the typical cases. The potential solutions here and again flush this out quite a bit more and get more representative and comprehensive list but to look at simulation training, access to consultants, checklists, protocols and decision support type of things, symptom oriented. And, you know, coming up with some case exemplars based on the (ED stroke) presenting with dizziness or headache which could be a variety of conditions.

Let's go to the third one. So here we have a little bit more of a granular error, a failure to close the loop on diagnostic test results, maybe a test that is - produced some important findings that were recognized and the challenge

here might be that the clinical care is highly distributed across providers, across settings, across teams. So it can be - drop the ball. So we want to draw out those potential causal factors, fragmented care, you know, barriers of information transfer, lack of operability across the EHRs and then think about what potential solutions we could implement to try to mitigate those causal factors and issues, for instance trigger tools for critical findings and then this issue of patient engagement, really engaging patients, you know, having patients involved in that reporting test results and helping closing in that sense so then you know again coming up with some examples of or a peek of where this might come up or be a potential issue. Go to the next one.

There's this issue of this prolonged diagnostic type - odyssey, ongoing chronic symptoms that are undiagnosed, unexplained, may or may not have a diagnosable cause. So causal factors may be these oversimplified rules of thumb, the fast pace of care, workload, potentially some issues of demographic bias, over countenance on part of the clinicians. So we can look to solutions to some of those factors making sure we really draw out patient preferences and engage in meaningful and robust shared decision making to sort of manage that uncertainty, getting second opinions, bringing in both the specialties to help with diagnostic process and then you know, some potential changes with cases (unintelligible) Syndrome so that we can think of different issues or cases that might apply in this instance. Let's go to that last one.

So here looking I think more at common diseases that may not be identified in a timely manner, you know, the challenge here being that our care system doesn't always systemically emphasize prevention and early diagnosis and can lose track of patients who no show of patients or just miss what ought to be you know, fairly clear manifestations or symptoms. Causal factors can be this is health event based rather than wellness based, tracking and sort of documentation of care and symptoms, fatigue related to guidelines and alerts,

guidelines around timeliness. Potential solutions could be more patient based in the EHR design targeting health and wellness maybe in the home, making - sort of leverage things like wearables and doing more routine follow up of no shows and that sort of thing. And then we can again think of some maybe high impact or high prevalence cases.

Again maybe look at the literature or your key experience of our committee members to come up with some instance where this may happen more frequently. Maybe we'll pause here to see if that you know, maybe it's looking at in a little bit more detail at these cases. Does this all still make sense to you? Does it seem like something that can serve as an initial starting point again that we can kind of work through and flesh out a little bit? And then we're trying to see if we're heading in the right direction.

Man: This is (unintelligible) again, sorry. I think last time you had four cases and you had mentioned something about four use cases. Did you need five?

Man: Yes, we only need five or rather four, sorry. We added the last one just to sort of give us a little bit more flexibility I suppose and sort of a set to choose from. So you know, we might ask you to pick which - your topic for our or eliminate any there might be less interest in or may be of less importance. So that's something we can actually talk about now if any of these jump out as something that's sort of…

Man: Yes. The only reason I bring it up is sometimes it gets a little blurry when you start bringing screening type things in there with diagnosis. It's just muddies the water and so far the first four were clear cut things that we, you know, can sort of associate with and not necessarily for this one. It just feels different from the others and more sort of - some of it may be - the other is prevent. It's like prevention and things like in there, the (unintelligible) things and I think

that's different. And not that I'm saying it's not important, it's just different from the diagnostic errors that sort of some of us have been dealing with and figuring out what to do next.

Man: Okay, any other thoughts from the - our other committee members?

Man: I have the same thought, same impression. And I think there is enough - there is a lot of effort and structure in measurement around these (unintelligible) processes and wellness measures. So I'm not sure our work or our focus is as needed the4e.

Woman: Can you show number 3 again?

Man: Sure. You pull that up?

(Edwin): So this is (Edwin), sort of focus a little bit more on a particular type of error or issue, a more tangible error you might say.

(Slavia): This is (Slavia). The thing that I like about use case 5 is that it's the - essentially the only one (unintelligible) for any mental health or substance use diagnosis, you know, (unintelligible) the transition from mild or moderate mental health or substance use (unintelligible)disorders and that represents such a large part of the burden of illness particularly among young people. It has and I think it's very interesting.

Man: Any other thoughts or comments?

(Helen Haskell): I would be - this is (Helen). I would be really hesitant to get into anything around screening and prevention for the reasons that (unintelligible) and also because there is - it's a different issue and there's tension around that in terms

of over diagnosis and I think we (unintelligible) may be more than it should be.

Man: I agree. It would be great if it was out of scope. It would simplify things a little bit.

(Cathy McDonald): Although you can go back to number 5. This is (Cathy). It doesn't really seem like number 5 was really so much the screening. It was more like symptomatic - delayed screening for early manifestations of the disease meaning delayed screening for once there is some symptoms. But may be symptoms the patient isn't appreciating

Man: It says screening.

(Cathy McDonald): I know it says the word screening. But the early manifestations made me think it's more about responding to early manifestations.

Man: I think that would be different.

Man: Yes I think that was the idea as I understand it. There would be some symptoms presenting but maybe they're not just recognized or identified in a timely way.

( ): This is (Mark). This is in a three way comment kind of case, for example women with iron deficiency anemia. It takes two years to come up with a reason they're iron deficient so with the common condition it's not going to be fatal next week but delays in diagnosis are really common and it's highly actionable. So I think this is what that was getting at. It's not about screening. It's about timely diagnosis on disease.

Man: So then (Mark) to your point, the use case 3 is also marked failure to follow up on test result so...

Man: If they're related, sure.

Man: They're related so...

Man: Yes.

Man: Speaking on number 3 for that (unintelligible) for diagnosis. There isn't for (unintelligible). I got (unintelligible) developing and there's an intervention that if not done, you know, that the outcome is catastrophic. They'd lose functionality for the rest of their life.

Man: Right. So isn't primary diagnosis an important thing to focus on?

Man: I'd argue, yes.

Woman: I think yes. I think primary is important and it is different from screening. Maybe it just needs to be...

Man: Yes, it's not about training. Rephrase that a little bit, yes. It's about once symptoms are recognized, acting upon them in a timely manner.

Man: Yes but I'm hearing - I believe the conversation was around psychosis or did I mishear that?

Man: Right, for (unintelligible) psychosis.

Man: Yes. I think what you bring up is really important. The (unintelligible) for

instance, we've just not had a very good body of research and diagnostic errors in psychiatry disease. So if you want to make the fifth case solely about mental health types of issues and make it about it, it was different from the diagnostic odyssey one (unintelligible) I think that would be a lot more - it's probably a lot more meaning.

Man: I'd be very in favor of that. There's a tremendous amount of other work around this that would feed into that. I think that would be very good.

Man: And one of the things that makes it different is because some of psychiatry - condition, there's no gold standard. There's no lab test. There's no imaging test, a biopsy that can give you the gold standard diagnosis which makes it harder sometimes. So it would be a nice twist to (have five) if you want to consider.

Woman: That's not - psychosis wouldn't be the only example that (unintelligible) and the other symptoms or some of the other patients couldn't be followed up in a way that would reduce the more timely result that would be better for the patient. That's one good example but it's not the only one.

Man: So might the case be common conditions for which there is no sort of standard screening or lab test, that kind of thing?

Man: I think we were talking about mental health conditions so (unintelligible), that's what (unintelligible) not necessarily psychosis or one condition, just mental health presentations in general.

Man: Yes, got you. Okay.

Woman: So I feel like we're having two conversations. I mean there's the example of

psychosis and mental health which I completely support as they're important but there's also just the idea of case five when we take away the word screening and talk about it as you know, early symptoms that may or may not be appreciated enough by either the patient or the physician or the interaction between the two in a way that would have consequences and have delays in diagnosis that would have consequences. So that's the broader category is what number five was getting at, the psychosis and mental health example was a subcategory.

Man: I hope we're being very clear that we're separating screening from symptoms. No matter how early there's a difference between screening and you know…

Woman: Right.

(Marsha): This is (Marsha). I think (unintelligible) when you're asymptomatic but tell you you're too early, detect something is that you do not recognize the symptoms that may be there or (unintelligible) predisposed. So I just wanted to jump in on that. Number 5 has some problems because it says prevention/early diagnosis and you may screen someone who does not have symptoms but early diagnosis made her - someone had symptoms you recognize (unintelligible) something that has a (unintelligible) may result in the failure to prevent those complications that could've been avoidable if you had found these and treated them appropriately.

Man: It sounds like there's agreement that asymptomatic screening is out of scope here. In any event try to clarify that that's not the focus of any of these use cases. They're looking for symptom based screening and assessment. Any other comments or questions or thoughts?

Man: Yes. I was love to empower the workgroups to say look at the - look at the

titles of the use cases and feel free to propose modifications that make more sense as you get into the content a little bit more.

Man: Yes, absolutely. And we can send around or maybe it's slides available, sort of the titles and you know, slightly more detailed description and we would very much welcome feedback and suggested modifications or edits on those Again these were just get our juices flowing, just thinking about these things, not meant in any way to be comprehensive at this stage but we would very much welcome input and thoughts on how we're kind of at least framing this up, ways we can helpfully hone down and focusing on issues that are of importance to the whole group.

Andrew Lyzenga: Any other thoughts or comments?

(John James): This is (John). I'd like to make one - I'm struggling with the idea of genetic diagnosis. As I understand it clinicians can make a diagnosis and that's that. But if there's a genetic component behind it that matters, is that part of our thinking (unintelligible)?

Andrew Lyzenga: I might open that up to the committee. It's something I think we haven't thought about too much yet. Are there any comments or thoughts from committee members about that?

Woman: I couldn't hear very well. Was the question in regard to there was a genetic predisposition to a (unintelligible) and whether we would consider that in use cases or...

Andrew Lyzenga: (John) is that what you were thinking? Is (John) back on mute?

(John James): I don't know. I mean, I think it's up to the group to decide if we want to dig

that deep. So many illnesses have a genetic component that may not be recognized in the matter of treatment. Now is that really a misdiagnosis or is there - is it...?

Woman: I mean, it could be a misdiagnosis if one didn't consider that in a differential diagnosis and so ultimately diagnosed once they got to the geneticist or whoever it was. So I think that would be a case exemplar at a finite level but probably not overlying arching theme across the use cases, probably a little too specific but perhaps as an example of a way in which things weren't put together.

Man: Okay thank you.

Andrew Lyzenga: Any additional comments or thoughts or ideas? If not we can - I think we've got some really good input and feedback here. We'll go back and re-listen to the call, try to sort of refine our approach a little bit here and I think we're expecting to maybe send out some sort of survey or something like that to gauge your interest in participating in some smaller workgroups focused around use cases and you know, as we discuss maybe start thinking through a little bit more and refining them as necessary, I know maybe sort of moving up or down a level of detail of granularity as appropriate. So we will put together some follow up and be in touch with you about that. Maybe we can talk through next steps at this point and let you go a little bit early.

( ): Andrew this is Mark. If we want to communicate with you between calls who should we address those emails to?

Andrew Lyzenga: We do have a email box for the project that is diagnosticerror@qualityforum.org. You're also welcome to reach out to any of us on the project team and we'll communicate that to the rest of the team

and make sure we get back to you.

(

): Thank you.
Andrew Lyzenga: Sure.

((Crosstalk))

Woman: Sure, absolutely. I do want to just pause to see if anyone - we want to make an opportunity for public and member comment. Just want to know if anyone not on the committee that did want to make a comment at this time we'll pause to give you - allow you the opportunity to do that.

Okay. So as Andrew mentioned we will be reaching out to the committee members, be reaching out to you very soon with assignments around the use cases. And we know that we do have a little gap in our next meeting. Our next meeting is scheduled for December 11 where we'll be identifying, obtaining input on the high priority use cases 1 and 2.

Our next meeting will be in January and probably that will be in March. We just want to keep this list in here in clear view. We will be reaching out with specific times within the next week or so so that you can actually have those calendars on your appointment. As Andrew mentioned you can always reach us at diagnosticerror@qualityforum.org to reach out to the project team and you'll have access to SharePoint.

We will make sure that these updated slides are available on the committee SharePoint page so that you all have access to them by the end of the week, okay? If we don't have any questions I'll turn it back over to our co-Chair to see if you would like - (David) if you would like to close us out with any final

thoughts.

(David Hunt): Sorry I was on mute. I just want to thank everybody for the comments. I think it's been really helpful in trying to help us clarify how we want to structure this as we go forward. We last meeting discussion we struggled a bit to figure out how best to frame some of these issues and so I really appreciate the comments from people today that I think will help us to frame it and create a platform for which we can move forward fairly effectively. So thank you all for your participation, look forward to staying with this project as we continue on. Thank you.

Woman: Thanks (David). And as a special gift to you, you've all been super-efficient so we'll give you some time back today. So thanks for the call and we'll be speaking with you soon. Everyone have a good afternoon.

Man: Thank you.

Man: Thanks.

Man: All right.

END