

**HIT Policy Committee
Meaningful Use Workgroup
Transcript
December 10, 2013**

Presentation

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you. Good morning, everyone. This is Michelle Consolazio with the Office of the National Coordinator. This is a meeting of the Health IT Policy Committee's Meaningful Use Workgroup. This is a public call, and there will be time for public comment at the end of the call. As a reminder, please state your name before speaking, as the meeting is being transcribed and recorded. Also as a reminder, if you are not the person speaking, if you could please mute your line, it would be appreciated. I'll now take role. Paul Tang? George Hripcsak?

George Hripcsak – Columbia University

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

David Bates?

David Bates – Brigham & Women's Hospital

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Christine Bechtel? Neil Calman? Art Davidson? Paul Eggerman? Marty Fattig?

Marty Fattig – Nemaha County Hospital (NCHNET)

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Leslie Kelly Hall?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

David Lansky? Deven McGraw? Marc Overhage? Patty Sengstack? Patty, can you pronounce your last name? I think I just butchered it.

Patty Sengstack – Bon Secours Health System, Inc.

No, you didn't. You said it great. Sengstack. Perfect.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Okay. Thank you. Charlene Underwood?

Charlene Underwood – Siemens

Here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Mike Zaroukian? Amy Zimmerman? Tim Cromwell? Joe Francis? Greg Pace? Marty Rice? Bob Tagalico? And are there any ONC staff members on the line?

Elise Anthony – Office of the National Coordinator

Hey, Michelle. Elise Anthony here.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Hi, Elise.

Elise Anthony – Office of the National Coordinator

Hey.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

George, before I turn it back to you, I just want to introduce Patty. Patty, maybe you can take a minute to introduce yourself, but for a long time, we haven't had a nurse on the meaningful use workgroup. So Patty is a nurse, so we're very happy to have her. So Patty, maybe you can quickly introduce yourself to the group, just give them a little bit of your background before we get started.

Patty Sengstack – Bon Secours Health System, Inc.

Sure. I'd be happy to. It's an honor to be here. So I am currently serving in the role of the chief nursing informatics officer for the Bon Secours Health System, which is based on the East Coast, and has 14 hospitals from New York down to Florida. Before that, I was the deputy CIO and chief of clinical informatics at the National Institute for Health Clinical Center. Right now, we're in the midst of everything that this group is talking about. You know, meaningful use from – we've got hospitals that are going from paper to electronic in the next few months. We've got a group of hospitals in Virginia that are at _____ level 7. So we've got the whole continuum.

We're dealing with the things like accountable care organizations. We're working on – in the midst of a Medicare shared savings program and value based purchasing. So that whole continuum of care thing, we're in the midst of, in addition to meaningful use. The implementations, and clinical decision support, and everything else under the sun.

So I have my doctorate from Vanderbilt University, and I currently teach there. I'm on the faculty there. And this is my year to be the president of the American Nursing Informatics Association. So I'm really thrilled to be here, and hope that I'll be able to contribute to what's happening out there in the world of informatics from the nurse's perspective.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you so much, Patty, and we're excited to have you. George, real quick, we also have Marjorie Rallins on from the Clinical Quality Workgroup, and I just wanted to check and see if Danny was on as well.

Danny Rosenthal – INOVA Health System

I am on as well. Thank you.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Hi, Danny. So they'll be able to give us feedback when we get to the clinical decision support objective. So –

Michael Zaroukian – Sparrow Health System

This is Mike Zaroukian. I just joined. Hi.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you, Mike. Hi. So George, I'll finally turn it back to you.

George Hripsak – Columbia University

Thank you very much, Michelle. Welcome, Patty, and thanks to our guests. So we can start the slides, I guess. Next slide. Our job today – so as you know, there was an announcement about Stage 3 last week timing. But our job stays the same until we hear otherwise. So we need to proceed with our work, and our work for today is to finish up the objectives in quality and safety and in care coordination, and review feedback from Standards workgroups and so on, and the Quality Measures Workgroup. Michelle, did you want to organize this, that I would run the quality and safety and care coordination, or do we want to put that off to the leaders of those two areas?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Well, since we have David today, maybe between you and David, you could run those slides. I'm highly doubtful that we'll get to care coordination, but if we do, then Charlene is on as well, so we can have her lead that discussion.

George Hripsak – Columbia University

Great. And then anything we want to say about the next call? We'll just continue on the recommendations on the 20th.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. So likely we'll probably start with care coordination on the 20th, and then we'll go through population and public health. So – and just a reminder, there are a few items that we asked for feedback from the Standards Committee on. We haven't gotten feedback on everything, but we did get feedback from the Clinical Quality Workgroup on the CDS objectives, so we do have those details today, so we can run through those.

George Hripsak – Columbia University

Okay. Let's go to the next slide. Thank you, Michelle. Let's go to the next slide, and the next one. Keep – next. Right. Well, that previous slide was just review of what we've done, and now this is the first one to address, and it's – wait a minute. Let me get to it on mine. Clinical decision support. David, do you want to talk about this?

David Bates – Brigham & Women's Hospital

Sure. So the functionality that is asked for is multiple CDS interventions that apply to quality measures in four of the six domains, and there's a list here. And then the second was that the HRT should have the functionality to enable intervention tools to do the following seven things. And again, you know, our intent was to try not to be overly prescriptive and to encourage innovation. So that's the – kind of the needle that we've been trying to thread throughout. And I could go through the individual ones, although we've talked about each of these quite a bit.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. So I think it might be worthwhile. So we had some questions for the Quality Measures Workgroup, and I think it might be worthwhile to kind of walk through those questions, just to see what their response was. We haven't – the Implementation Workgroup on the Standards side hasn't finished their feedback yet, but we do have Danny and Marjorie, who can provide some feedback as well. So basically, the questions that we were asking them were in regards to the certification criteria, making sure that it was feasible and appropriate. And so they do have some detailed feedback, if we want to flip to the next slide.

George Hripsak – Columbia University

Next slide. Thanks.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So Danny, I don't know if you want to speak to this, but, you know, overall, I think this is a high level summary of their feedback, and then we can walk through the details, if we like.

Danny Rosenthal – INOVA Health System

Absolutely. So hi. This is Danny Rosenthal, one of the co-chairs of the Clinical Quality Workgroup – Clinical Measures Workgroup with Marjorie Rallins. So the question to us was really to evaluate the standards that are available to support the functional requirements for CDS. And these two bold points sort of cover the gestalt of the group.

The first one is that the certification criteria are certainly feasible, as evidenced by the fact that vendors are able to be certified. However, the group felt that adoption of the standards that have had little industry exposure created problems in the past for meaningful use. So the group is hesitant to sort of go full force into recommending a specific standard, such as HeD, which was very much at the – at the top of the conversation amongst our group.

So the recommendation of the group –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Danny?

Danny Rosenthal – INOVA Health System

Yes?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I'm sorry. HeD for the Meaningful Use Workgroup is Health eDecisions. Just making sure they know.

Danny Rosenthal – INOVA Health System

Great. Thank you, Michelle. So yeah, the group didn't want the excellent work that's going on with the Health eDecisions project to go unnoticed, yet they don't feel 100 percent confident saying now is the time to include HeD in the – in the recommendations, and then vendors sort get down that road, and then if a standard then changes, then vendors are in a precarious situation.

So the thought was to recommend an approach that adopts a newer draft standard as optional criteria, with the intent to advance them into the core in future stages. So this approach would avoid the need to rush into implementations for the vendors, but still provide some incentive to use these standards, making them as optional criteria. So that's the thousand foot view from the group.

George Hripsak – Columbia University

Danny, when you say optional – this is George. When you say optional, you mean optional for the vendor to – because these are certification – optional for the vendor to implement?

Danny Rosenthal – INOVA Health System

Correct.

David Bates – Brigham & Women's Hospital

So the certification criteria have not typically been optional. You know, for MU they're optional, but certification has been you either do it or you don't.

Danny Rosenthal – INOVA Health System

So Dave Bates, that was you, the last comment?

David Bates – Brigham & Women's Hospital

Yeah. Sorry.

Danny Rosenthal – INOVA Health System

Yeah. So if you can actually advance to the next slide, I think we go into this a little bit more. Well, you know, it's actually going to be a little bit later on. Can you actually go back two slides, please? Perfect. So just so you guys understand the approach that we took, we basically went through all the certification criteria on the bottom there, one through seven, and as a group, we answered three questions. Number one, we said is this a – is this certification criteria reasonable, right, to have in Stage 3? Number two was is there a standard to do it? And then number three, we said, if there's not a standard, does there need to be a standard for MU Stage 3?

And the gestalt of the group was that the vast majority of these, and these details are on a later slide, are certainly reasonable. For a lot of these, there is not a single standard that has been validated and tested and is widely in use. But then the group also felt that for a lot of these, there does not necessarily need to be a standard. So for example, on the first one over there, ability to track CDS triggers, we interpreted that as the ability to track CDS interventions that are fired as well as the user responses to that. So to use that example, the group felt that that was a – that was reasonable to ask both of those things. A lot of vendors do that now currently. The group felt that there was not a validated, tested standard for that, but the group also felt that there did not necessarily need to be a standard for that.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie Kelly Hall. I'm on the Standards Committee, and I would like to offer some comment and question there. Currently, in meaningful use 2, we use the HL7 contextually retrieval, the – aka, the InfoButton tool, and this is used to get to external expert systems, whether that's an article for content from JAMA or patient education materials.

And this standard allows for the ability to retrieve information from an expert system based upon contexts like height, weight, most current labs, most current meds, chief complaints, principal diagnosis, problem list, discharge diagnosis, and other. And in fact, it is going to be part of the IOM paper referenced here in the second bullet. This con – this particular context has already been adopted in meaningful use, and although not perfect, and although URL-based, it's been one of the quickly – the fastest-adopted standards, and can be used to get to any expert system.

So although it's not perfect, because it already exists and it can get to an expert system like a clinical decision support system, I would encourage us to actually continue to build upon that standard for CDS, then be able to add additional functionality as we move forward with more complex interventions. This particular standard allows you to then retrieve information from that expert system, and to consume information back from that structured system as an artifact, and that says I've in fact used this particular decision tool, I've in fact used this particular content base.

So I challenge this a bit, and hope that we can consider where we can using existing standards that are already ... in meaningful use to advance new functionality. And this – because clinical decision support is an expert system, we don't necessarily have to have a standard for the expert system, but to be able to get to it easily using a context already established could be quite beneficial. Thanks.

George Hripsak – Columbia University

Leslie, this is George. You're making the argument that it shouldn't – that you're feeling that this statement that it's optional, we should go stronger than optional? Is that what – is that –

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Exactly. I think we can already name this particular standard as a requirement. It is a requirement in meaningful use 2. It is not optional for patient education material. And it can be used and expanded, although not in the roadless way in the – in the future that Health eDecisions I think is envisioning, at least we can get to it, based on all the criteria that I mentioned above. And by adopting that, we can then advance future and richer context for expert system retrieval.

George Hripsak – Columbia University

Okay. And then – but just realize that not everything, one through seven, is covered by the InfoButton standard. So ability to track CDS triggers, I don't think there's particularly a standard there for how, when you send an alert to a – to a healthcare provider, you know, when it was sent, why it was sent, and what they responded is – I don't think that's part of –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

That's where – the artifact is there, and it doesn't track that a trigger occurred. It does track what's been retrieved, and can either reference a particular document or intervention artifact, or can – or can – or actually consume the artifact itself. So either one ... and it's there. So it can't do item four. It can in – for patient shared decision making, capture a shared decision artifact. It can consume a particular artifact. It uses existing standards around height, weight, gender, chief complaint, principal diagnosis, etcetera.

And so I just think it's possible to say where applicable, let's use it, and then see how the market advances this. But this is a – this particular standard is being – is implemented in less than a week. It's just not tough, and already part of meaningful use 2.

George Hripsak – Columbia University

I just, again, my question is just – and then we're going – so we're going a little bit aside, so we may have to come back to the InfoButton standard, so we'll – but before we do, just say – you know, like an order set. I don't know how an order set, which is an example of CDS that we're trying to be supportive of, I'm not sure that order sets fit into the InfoButton framework, which is querying an external, you know, expert system, and getting an answer back. That's not how an order set works. So –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Correct.

George Hripsak – Columbia University

– I just – I would just have to see how – whether everything we include – we're purposely not saying it's just an expert system or it's just a rule – whether the InfoButton standard covers all of it or not remains to be seen. So let's hold ...

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I agree that – I agree that it doesn't –

George Hripsak – Columbia University

– we shouldn't just assume that everything should be optional, and –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Correct.

George Hripsak – Columbia University

And so now let's go on to slide six – back to slide six – which is one forward, then another forward. Okay. Danny?

Danny Rosenthal – INOVA Health System

So this slide is – it's answering the question of how usable are current CDS standards? And these are individual comments from the group, and I – you guys can read these offline. The summary of this is that HeD is very much a work in progress.

[Crosstalk]

Danny Rosenthal – INOVA Health System

Very much a work in progress, and which is why the group doesn't feel 100 percent confident saying HeD should be in the rule making right now. But the group still identified merit in the – in HeD, and would like it to be encouraged. But as David Bates was saying, it's either in or out. It's either yes or no for certification. The next slide, please.

Can external data from registry be used to trigger decision support? Again, these are two comments from the group. Data are data, so sure, data from external registry can be used to trigger additional support. However, the application of it in real time in EMR introduces some dependencies that we should be aware of. If I – this creates a point of failure outside the control of the EHR vendor that makes the customer use of the system problematic to support.

So if data are outside, you know, it's questionable if vendors will sort of build those hooks to run decision support off of third party systems. But yes, it certainly can be, in theory.

The second bullet there comments on some other dependencies. If decision support is going to be running let's say, I don't know, outside of the EMR, then you get into questions of completeness of the data to generate a recommendation, if it's registry-based only. Next slide, please.

And I don't want to consumer too much of the group's time, so if you want me to review these slides, I'm happy to, but this is – these are the three questions that were asked for each one of the certification criteria. Additional comments are on the left. So for example, for the first one there, the ability to track CDS triggers, the group felt that that was – what does that mean, by track CDS triggers? And we interpreted, perhaps it was meant for tracking CDS interventions and user responses. Perhaps that was the intent of that criterion.

And then for each one of these, we asked the questions, is the criteria feasible for a vendor to meet? Is there current standards that support this? If so, list that standard. And then if not, should a standard be required? And so these get into the – into the detailed examples. Again, all this is summarized on that first slide that had the two bullet points.

David Bates – Brigham & Women's Hospital

Do you want to talk about these as we go through them? I mean, I think it might be most efficient to do so.

Danny Rosenthal – INOVA Health System

Sure.

David Bates – Brigham & Women's Hospital

So, you know, on the first one, we want to track two things, which are how often the intervention goes off, and then how – and how the user responds. Definitely, you do want to know how the user responds. I think that the word triggers is something that's been used previously in MU, so that's why we used it. But I'd be fine with the way that Danny just phrased it. In other words, the intervention and the user response, you need both to basically – to improve these systems.

And many vendors do not – do not do that routinely today, but it's just extremely important in terms of being able to make the decision support better.

Charlene Underwood – Siemens

So David, I know – this is Charlene Underwood, so I'm kind of speaking a little bit from the vendor hat. We've worked on this problem. It gets complex, because there's a lot of variation in terms of when you respond to a particular decision support, there's sometimes a lot of caveats around it. So would you see a standard emerging there? Which I think would be really complex. Or, you know –

[Crosstalk]

David Bates – Brigham & Women's Hospital

So we were intentionally non-specific about it, because I agree with you, it is complicated.

Charlene Underwood – Siemens

It is. It is.

David Bates – Brigham & Women's Hospital

Yeah. But at – but at a minimum, you need to have the flags there so that you know when an intervention went off, and that you have some sort of approach for saying how people responded. And I wouldn't necessarily see a standard emerging for this. It could, but I wouldn't wait for that. And one can do a lot from the quality improvement perspective, you know, without – without a standard.

Charlene Underwood – Siemens

So, again, if we're going to go this direction, I would just caution that, you know, we can keep this – you know, it can get smarter in individual systems, but at a national level, I mean, they're going to have to test for this, like it should respond. So what's – what qualifies, right? And then they'll write the test script. So, you know, we have – I caution that somehow we keep it at least from the policy level, you know, more straightforward.

Danny Rosenthal – INOVA Health System

So the group felt that – so broke it down, one based off of tracking the intervention, and number two, tracking the responses. And similar to the conversation that I'm hearing here, we had a – we had similar concerns, that it – it's more feasible to track the interventions, when things fired, but it's less feasible tracking what those responses were in a meaningful way.

Charlene Underwood – Siemens

Right.

Danny Rosenthal – INOVA Health System

And some people raised that obviously, it's very, very complex, that this is not just aimed at the docs, but on multiple members of the care team. What's the usability interpretation of the responses? So it seemed more clear-cut for tracking intervention, and the return on tracking the responses seemed a little bit squishier, to use a scientific term.

David Bates – Brigham & Women's Hospital

Yeah. Well, the organization themselves can figure that out. But, you know, I – you know, feel very strongly that we should not be doing this for just one thing, like drug-drug interactions. That would be a really big missed opportunity. You know, that – at the simplest level, it's things like, you know, a mammogram is suggested, and did the person do it or not? It's – you know, at the end of the day, it's not – it's not that complicated. It can – it can get complicated, but this is something that, again, would be used within the organization to, you know, to make care better. And that would be worked out between the vendor and the – and the – and the organization.

Arthur Davidson – Denver Public Health Department

This is Art. I just want to mention that this also could be used for other preventive measures, like immunizations.

David Bates – Brigham & Women's Hospital

Exactly.

George Hripsak – Columbia University

So this is George. I just – I just want to talk about the process here. So I think what we're doing is we're deciding whether the seven things we outlined for certification are feasible. Leslie's arguing that they're probably more feasible than we realized. We may be further along on standards than we realized. We don't want to pick the standards, so the Standards Committee will be helping – if it's InfoButton standard, that's great, we'll be picking that – they'll be picking that afterwards. We just have to decide how far we can go.

Charlene, you need to tell us on like number one, ability to track CDS triggers, or as clarification, do you think that's too strong for what will be Stage 3 several years from now?

Charlene Underwood – Siemens

Right. Right. And I think – and that was kind of where – I know in going back to the vendors, we'll probably get that response, you know. It's medium to huge, basically. So –

David Bates – Brigham & Women's Hospital

This is one of the very most important things in the whole meaningful use criteria, from my perspective.

Charlene Underwood – Siemens

But even like – even like if we're going to track was the mammogram done, and there's a whole follow-through loop that happens there.

David Bates – Brigham & Women’s Hospital

Of course there, and again, the –

[Crosstalk]

Charlene Underwood – Siemens

I just think – you know, I’m not disagreeing. Just trying to put a little – I mean, some boundaries or some way to talk about it.

George Hripsak – Columbia University

The – it seems like number one is probably – I can’t imagine doing decision support without doing number one. We’ve currently been doing it since 1992. So I can’t imagine running a clinical decision support system, writing rules, and not tracking what’s being used or not used and what people are saying about it. Like that’s the most essential thing that the quality group in the hospital say has to do, whether it’s – now a doc in a practice is a little bit different than a hospital, but it does seem, as David said, that this is like an essential component. And if it’s feasible, we should try to do it. And it’s not necessarily that everything we do has a standard, because we’re not trying to aggregate these day across hospitals, although it would be good to do it that way.

But Charlene, what you’re saying, I think, is that even if we’re not sharing the data, you need to have a consistent certification process, so we can figure out if the system – we have to define it well enough to say if the system succeeded or not.

Charlene Underwood – Siemens

Yeah, I’m less worried about –

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie, and I would just encourage us to look at the current structure of just basic order and order response. I do not believe that this is as complex as starting from scratch, as it is to say – we now have the opportunity to have a CDS intervention that can lead to an order and an order response. So where we have ability to map these functionalities to existing ones, let’s look at how we can do that, instead of – because this is very important. This is the essence of where we’re trying to get, is collaborative and shared decision making, not just at the – at the physician and clinician area, but also with the patients in the future. So . . .

Charlene Underwood – Siemens

So I – you know, in terms of ability to be able to track whether a rule was fired, and again, there’s a lot of different kind of rules, that’s certain possible. Tracking all the variations in terms of the user response is where I worry. That’s all.

[Crosstalk]

David Bates – Brigham & Women’s Hospital

Well, what I think we should do is, you know, is reword it slightly, as Danny has suggested, to deal with both the issue of the – of the – well, firing, and then the response.

Charlene Underwood – Siemens

Mm-hmm.

David Bates – Brigham & Women’s Hospital

Can we – does it – are we – are we okay there? Can we move to the next one?

George Hripsak – Columbia University

I agree with that. Just realize, Michelle, the slide says tracking user response alone. We want both the firing and the response. So it’s not what’s on the slide.

David Bates – Brigham & Women’s Hospital

Yeah.

Danny Rosenthal – INOVA Health System

Right.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yep. Thanks, George.

Patty Sengstack – Bon Secours Health System, Inc.

This is Patty. I totally agree, because I think that there might be some confusion regarding ____ decision support. You know, it can mean so many different things. You know, it can mean embedding clinical practice guidelines into your electronic health record, or providing electronic evidence-based care plans, and so that's different than putting in alerts and reminders, which I think is the component of clinical decision support this is addressing. So I think anything we can do to clarify that is – would be helpful.

Charlene Underwood – Siemens

Right.

Michael Zaroukian – Sparrow Health System

And this is Mike. I would just add – I mean, I'm definitely in favor of the idea. The key issue of both burden for providers and the signal to noise ratio, making sure that we're also accounting for the issues of filters and the ability to sort out important from less important decision support, and even potentially user ability, based on their specialty, to, if you will, dispel certain types of alerts for certain patients.

Charlene Underwood – Siemens

So maybe – this is Charlene – we could track the [audio glitch] user response rather than the user [audio glitch] I know that's not my [audio glitch] but at least that's a step.

David Bates – Brigham & Women's Hospital

Can you just say that again? I –

[Crosstalk]

Charlene Underwood – Siemens

I was [audio glitch] occurrence of a user response, and then we would – how the systems responded, you know, we want the vendors to be real creative in that, but at least we would know there was a response.

David Bates – Brigham & Women's Hospital

Well, we want to know what the response was.

Charlene Underwood – Siemens

I just – I agree, but what are you going to do with it?

David Bates – Brigham & Women's Hospital

I mean, what we do with it is we use it iteratively to refine the decision support. And, you know, with our own decision support, doctors take action, you know, 70 percent of the time, and the industry norm is 5 to 10 percent. And, you know, the providers will be very substantially better off if the industry can move broadly in a direction in which people are not being bombarded with things that they don't respond to a lot of the time.

Michael Zaroukian – Sparrow Health System

So – and this is Mike again. Just to clarify, you know, ignoring or dis – or dismissing alerts is a response. It's just a bad one, or it's an indicator of the work David's done to make only good ones appear, highly relevant, highly likely to justify a response. And then that allows organizations to actually require a response. And so I think that's been part of what's been used to deal – to deal with improvements. So for the certification part, it's the ability to track – I think it's definitely important there. And then the ability to be able to say the variety of responses that are possible, so that they can indeed inform improvements. We just have to be careful over time with what do people then have to do once the certification is required.

Charlene Underwood – Siemens

Right.

David Bates – Brigham & Women’s Hospital

So, I mean, I –

Michael Zaroukian – Sparrow Health System

That’s a slippery slope. Yeah.

George Hripsak – Columbia University

You know, we need to have – we’re storing it in the EHR, so it makes no sense to only say whether they responded and throw it away and not store it anywhere. I think, Charlene, you’re just worried about the fact that we can’t possibly come up with a standard for encoding all the kind of things someone could respond here. So we –

[Crosstalk]

George Hripsak – Columbia University

– just need to keep the response in some form, be it narrative or text, and we don’t need to standardize the form that the response comes in necessarily. But you need to keep the response and show it, because you wouldn’t be throwing it away.

Charlene Underwood – Siemens

Right.

George Hripsak – Columbia University

So I think that’s fine. If we just – I think we’re just saying that we don’t need to come up with a standard for all possible responses, because we can’t guess ahead of time what all possible responses are.

David Bates – Brigham & Women’s Hospital

Yeah. Exactly.

George Hripsak – Columbia University

Okay. So that’s good.

David Bates – Brigham & Women’s Hospital

Can we – can we move to the next one? Which is – let’s see. It’s actually – we haven’t done number two on this slide. So this next one is about preference sensitive conditions. And again, this language has been used before, so it seems clear to me, but Danny, do you want to comment about what – what was confusing?

Danny Rosenthal – INOVA Health System

Yeah. So representing the workgroup, I think that we were getting a little bit hung up on how using a decision support for flagging preference sensitive conditions, i.e., stable angina, is different than any other decision support since the dawn of time. So I – this – the first part of this really resolved down to can decision support identify diagnoses or conditions, and the answer to that is of course, that’s what decision support does. So – so the group felt that perhaps there was something else under the surface here that we were missing.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie. I can speak a little bit to that. The discussion on preference sensitive care was really around shared decision making with patients, and making sure that as we use the term clinical decision support, we’re not just referencing and building something that’s designed solely for the clinician’s use. And where preference sensitive care and conditions exists, those are high opportunities, high value opportunities for patient inclusion.

And so the hope was that as we – as we design this process in the future, we do so in a very inclusive way, and in high value decision making opportunities, where the patient’s values, preferences, direction have some equal clout ...

Christine Bechtel – National Partnership for Women & Families

So it's Christine. To add to that, I also think, Leslie, that we talked about the ability for the decision support to bounce off of patient preferences. So we – I think we actually specifically used some examples like, you know, someone is not allergic to morphine, for example, but they have a terrible reaction to it. You know, get very depressed on it, or whatever. They just preferred not to use that. How do we make sure that there's a way that that – that the CDS could bounce off, you know, a cataloguing of patient preferences in a particular area?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Dr. Les Lennart and Jeremy Defoe are working on that effort to help to define it, and to get to a values, preferences, and direction taxonomy that's based on the consumer. So we want to be able to identify where preference sensitive conditions exist, where patients' values, preferences, and directions impact those decisions, and make sure those all – those are included in the record.

Michael Zaroukian – Sparrow Health System

And this is Mike. I mean, I definitely support this notion. The quest – I am a little confused myself, though, on the operationalization of what that would mean to certification criteria. Exactly what would a vendor need to do to be meeting that in an impactful way?

David Bates – Brigham & Women's Hospital

Well, I think it would be reasonably straightforward, because I don't think that there was anything under the surface that – probably what one would do is list several preference sensitive conditions, and then just see whether – whether or not they could be identified.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Exactly.

Michael Zaroukian – Sparrow Health System

So the technology would not then necessarily have to provide a patient education tool that the patient would get as a – as patient instructions or information, or allow for a questionnaire a patient could fill out online that would help drive the decisions the physician might make based on those preferences? It's not that detailed?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

It can –

David Bates – Brigham & Women's Hospital

Yeah, it would have to have some link to some decision support materials for patients, but –

Michael Zaroukian – Sparrow Health System

Yeah, so that's –

[Crosstalk]

David Bates – Brigham & Women's Hospital

– how that's operationalized I think is left open.

Michael Zaroukian – Sparrow Health System

Okay. So people could do that – so that's what I'm just wondering, how the certification would be measuring that. What kinds of –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Actually, the – I'll go back to the InfoButton standard, which includes at least the notion of getting the patient specific education materials, live decisions, shared decision support, and allows for the artifact limited ... the decision by the patient to be put back into the record. So that – that is actually probably more ahead on the standard side for patient inclusion.

[Crosstalk]

Michael Zaroukian – Sparrow Health System

Right. So I'm with you on that. I'm just, again, wondering if it's going to inform the decision I might actually make on whether a patient gets a catheterization or a stress test or observation, medical management, versus interventional management of their stable angina. What level of clinical decision support are we asking for? Is it just very general, including giving them materials and not necessarily capturing it back in any way that helps with the decision support? It's just a document we would go reference to help with that decision? Or is it – are we asking for something more, and if so, when, and what does that mean to what a EHR vendor needs to be capable of supporting?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So right now – this is Leslie again – in the meaningful use – excuse me, in the workgroup that Christine and I talked about last week for the patient-generated health data, we've accommodated the idea of questionnaires for structured – in structured responses, and that has also been done with design in mind for shared decision making tools.

David Bates – Brigham & Women's Hospital

But you're not going as far as asking for that here?

Michael Zaroukian – Sparrow Health System

That's my question. Exactly.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I think we can.

Charlene Underwood – Siemens

This is Charlene. I – you know, here's my concern with this one, and I have a lot of concern with this one. And part of it is because to – one, to use clinical decision support, you have to depend on having data elements that have some standards behind them to really get to where we need to be. So even when we looked at managing problems, we really started to get locked in terms of, you know, what's going to be the relationship between the problem and the contraindication and a preference, and there's no data modeling behind this. So you're going to get so much variation out there because of the lack of standardization and modeling behind this process that, you know, I don't think you're going to get to your end goal.

So, I mean, things like knowing the patient's diagnosis and being sensitive to the education, that stuff's in the system and we know that. To start to embed structure from the patient without a framework to embed it I don't think is going to get us to where we need to go. And it's just going to be a lot of rework to try to accomplish it. So it's not that the functionality isn't important, but, you know, the data standards aren't there to understand those preferences so that we can act on them. So –

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

But what is there is the ability to record in a consolidated CDA structured format of a questionnaire and a response to questionnaire, so – and show the provenance that the patient has generated that data. That's there. The ability to use the – a vocabulary structure as defined within consolidated CDA and current meaningful use standards are there. What's currently not is a consumer specific vocabulary, which I think can be done in the future, so that there is – there is possibility to move this agenda somewhat. Maybe what we're doing is just defining a roadmap and an initial early phase that says can we get a decision aid to someone and can we get a response and include it?

Charlene Underwood – Siemens

Yeah. I mean, because there's only three data elements that have standards. We don't even have standards yet for patient goals. I mean, even if we could just agree on patient goals, it would be a big step. So I just – you know, so, you know, we just – we have a ways to go in this space.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Well, fundamentally, we could start with the biggest shared decision making, which is an advance directive.

David Bates – Brigham & Women’s Hospital

I think we’ve addressed that someplace else.

Michael Zaroukian – Sparrow Health System

And again, this is Mike. Since I stirred this pot a little, I mean, if it’s as simple as being able to flag a condition and –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Right.

Michael Zaroukian – Sparrow Health System

– and provide a patient with patient educational materials that – whose answers include things that can help with a more participatory and informed decision, but it doesn’t require any format, it doesn’t require any new standards, it could just be that patient education material given, and maybe, to Leslie’s point, the ability to get something back that can be stored in the record, that’s the kind of granularity or clarity I’d be looking for to be able to say, this is the certification criteria that’s within reach, that’s reasonable, that can be accomplished, and is clear enough to vendors that they both see it and feel like they could do it.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie. I agree. I think we get that in as a first step and see where it goes.

David Bates – Brigham & Women’s Hospital

Yeah. So – and Michael, do you think this is sufficiently specific in that regard?

Michael Zaroukian – Sparrow Health System

It wasn’t just by the wording. I think the conversation’s been really helpful to me in that regard. And so whether we use an example or try to refresh the wording a little bit, I think we probably need to do something to make the – make it more understandable to the recipient.

[Crosstalk]

Charlene Underwood – Siemens

Yeah. And I –

David Bates – Brigham & Women’s Hospital

Would people feel comfortable in taking that offline and our doing that and then – I’m trying not to ask for too much here.

Michael Zaroukian – Sparrow Health System

Yeah.

Charlene Underwood – Siemens

Right.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. David, this is Michelle. I’ll update the language and share with a few on the call to make sure it’s right.

David Bates – Brigham & Women’s Hospital

Okay. Okay. So the –

Charlene Underwood – Siemens

So – and again – this is Charlene – Leslie’s approach, if we can build on like what we’ve done, that just makes this more possible.

David Bates – Brigham & Women’s Hospital

Definitely. So let’s go to the next slide. Okay. And, you know, here, here there was a request for a definition for shared decision making. Again, I – who would like to comment about this? I mean, I – this again seems reasonably broad and – and general. Again, it’s intended to sort of signal what direction we want people to be able to go.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie. I think this will be informed by the Institute of Medicine's paper that's coming out in January that talks about shared decision making and how that could be integrated into the workflow, and definitions, but it's largely adopting the Foundation for Informed Medical Decision Making definitions.

David Bates – Brigham & Women's Hospital

Okay. So presumably, we could point to that?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Yes.

Danny Rosenthal – INOVA Health System

And the – this is Danny. The concern from our group was that capturing appropriate care goals, that exists today. It was the specificity of how to couple that to – that those care goals are in fact encouraging shared decision-making. That was the struggle. Appropriate care goals, of course. How do we in the certification criteria identify that those care goals are in fact goals towards shared decision making?

Charlene Underwood – Siemens

So how do we identify care goals? This is Charlene. So, I mean, I think we've got to get serious about, you know, the data that's driving this stuff to accomplish some of this.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I agree, and I think that the – this is Leslie – the delay that we have now got in meaningful use gives us time to take advantage of the work that's been done on the longitudinal care coordination team under HL7, and look at the structure, because it's included the care team roster, which we recommended going forward last week, and then we can look at the structure around goals of care, which are units of care under ... and then overarching goals for health and life, which is sort of that umbrella look.

So the structure if emerging, and the benefit of this delay gives us opportunity to make sure that those are right on track, and time to do it. And then in the meantime, by naming it up front, we can then state the iterative nature between now and then to go forward. But goals of care, care team roster, are fundamental in long term care planning.

David Bates – Brigham & Women's Hospital

And most records today don't include a place to put care goals. Again, we haven't said, you know, how they should be represented, or anything about that, just that – just that there should be a place to – to be able to put them.

Christine Bechtel – National Partnership for Women & Families

Right. Well, there is in the care summary for Stage 2. It's free text. It's not structured.

David Bates – Brigham & Women's Hospital

Right.

Christine Bechtel – National Partnership for Women & Families

But there is a place for care goals.

Charlene Underwood – Siemens

Yeah. We have free text in there for Stage 2, because we don't have them, but hopefully we're signaling they need to work on them.

Christine Bechtel – National Partnership for Women & Families

Yeah.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And we are working on them. So I think it's important to validate the work being done, so that as we look at the – this longitudinal care team work, we can advance the – as they are advancing, and build upon what we already have in 2.

David Bates – Brigham & Women’s Hospital

Yeah. Okay. The max dose, weight-based calculation was straightforward, it seems like. And Danny, did you want to comment about the structured sig?

Danny Rosenthal – INOVA Health System

Yeah. So the conversation here was really around is it feasible to get – like could we go as far as recommending NCPDP as the standard, and the group wanted to do some follow-up to identify the extent to which NCPDP is actually being used, tested, etcetera.

David Bates – Brigham & Women’s Hospital

Yeah. My sense is that it is, but I’m not close enough to it really be able to offer a very informed opinion about that. So Michelle, is that something we could follow-up with, with standards around, or –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. So Danny’s group is on the standards side, so Danny, maybe we can ask your group to continue to look into that.

Danny Rosenthal – INOVA Health System

Okay.

David Bates – Brigham & Women’s Hospital

Yeah. Okay. Go to the next slide.

Danny Rosenthal – INOVA Health System

As a point of feedback, David, if we identify that and we believe that NCPDP should be the standard for this certification criteria, then would your group then be modifying the certification criteria and including the language in there, theoretically?

David Bates – Brigham & Women’s Hospital

Yes.

Danny Rosenthal – INOVA Health System

Okay. So for this next slide, consumer external CDS intervention. So sorry that we’re so nitpicky with the wording, but what does it mean to consume? So is consumption I print out some things that I have to do, look at them with my right hand and then code them in with my left hand? Or is this like automatic consumption, where there is a ... where you’ve got five minutes to consume external CDS and show that it is actually live? So what’s – and our assumption is that the goal here is that automated consumption as opposed to manual consumption.

David Bates – Brigham & Women’s Hospital

Correct. That’s what we meant. So we could say automated consumption.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Of the artifact, right, guys? We’re talking about actually taking the result or the artifact of the CDS, once the decision has been made? Or are you actually talking about consuming the function of the CDS within the EHR? Because then that’s the whole FDA thing.

David Bates – Brigham & Women’s Hospital

No. I mean, we’re talking about – so basically consuming some external data, you know, in – bringing in some data in real time and then consuming a – an external CDS intervention.

George Hripsak – Columbia University

So this came up – this is George – came up originally with Art, right, with reporting, the case reporting. And we wanted to be able to consume the definition of the case that needs to be reported back to a health department.

David Bates – Brigham & Women’s Hospital

Mm-hmm.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So this is Leslie again. So many of these systems will be an expert system or a system that sits outside the – outside the EHR that you're interacting with in some way. And so are you envisioning that then once that interaction takes place and you have an artifact or a decision that indicates what – the process that took place and the actual outcome of that decision, consuming that back into the EHR, would that just not be another type of structured data being consumed in as a template under the consolidated CDA? Or are you envisioning actually importing the clinical decision support function, the actual algorithm, the software itself? Or do you see that as still an external expert system that is consulted, with an output coming into the EHR?

Arthur Davidson – Denver Public Health Department

This is Art. And we first started this – indeed, George is right. We were talking about this for case reporting. But the first discussion around this was back, again, to immunization systems. And it could be that you do consult, as Leslie just described, an external source of truth or CDS, and run your data up against it, or you could, in the other scenario that Leslie described, consume that, bring it into the system, and then use that knowledge inside the EHR. We didn't want to determine in advance which was the right answer for an eligible provider or hospital.

David Bates – Brigham & Women's Hospital

So Danny, would it make it easier if we identified a couple of specific use cases, or –

Danny Rosenthal – INOVA Health System

Yes.

Michael Zaroukian – Sparrow Health System

And this is Mike. So that point, I would say if I had an external diagnostic decision support product and it's giving me 15 differential diagnoses and relative likelihood, something like QMR might have done in the past or whatever, does consuming mean that I can say, well, I'll pick the top five, or I'll take those and those will come in – either into my assessment and plan, or I can take one that I've decided is the diagnosis, and that becomes part of my problem list? How are we going to define consume from that perspective?

George Hripsak – Columbia University

This is George. I think we're getting too comp – yeah. The intent of number six was specifically to consume a rule, to do a function like case reporting –

Michael Zaroukian – Sparrow Health System

Oh, a rule. Okay.

George Hripsak – Columbia University

– or immunization.

Charlene Underwood – Siemens

Yeah. I thought –

George Hripsak – Columbia University

Whether the CDS is external or internal and how we should design that I think is getting beyond what we can define in the certification criteria for one objective. You know, because I'm thinking – you know, because then would you want to do a similar amount of specification of how – what if the CDS happens to be internal? Do we have to – you know, we may be designing the entire system, then.

[Crosstalk]

Michael Zaroukian – Sparrow Health System

Well, because –

George Hripsak – Columbia University

I guess the world has changed from when we started, in the sense that we're now considering external CDS more than we were when we started. I think that's what changed. Charlene, you were going to say?

Charlene Underwood – Siemens

No, I was going to support actually the recommendation, because I know there's some work to try and use the HeD as a mechanism to define that. And again, I think both the HeD as well as probably this functionality is emerging, and it's potentially a good direction in the future, but it really does need to be vetted and piloted before we bring it in as a standard in this kind of a system or in terms of, you know, a baseline standard. So I support this – I think we need to – if this is the direction we want to go, we need to move forward on those projects that are going to pilot this to see if, you know, it's a viable implementation approach. The step that –

[Crosstalk]

Charlene Underwood – Siemens

The step that –

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Oh, go ahead.

Charlene Underwood – Siemens

– gets ____ is when you embed – you bring that into your clinical system. Again, you have a system that reports ECQMs, but I've also got a clinical system that I need to consume the rules, I need to make sure that my data standards are consistent across, so there's a lot of work here to move down this path.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

So perhaps an easier way to approach this in the first use case – this is Leslie – that you guys talked about, is simply having the expert system that might sit outside, because many of these will be FDA controlled, and not necessarily by – and by mandate not actually inside an EHR, but having that expert system be able to report back into the EHR in a way that's consumed, as was articulated just a few minutes ago. Yeah, I want to make sure that's incorporated in my care plan. I've selected these four things that I'm going to do based on best practice. Click, that's then inside the EHR and reflected in the EHR. That would be a great first step, and not inconsistent with current workflow, and/or current standards.

Charlene Underwood – Siemens

Okay.

Michael Zaroukian – Sparrow Health System

That's what I would think would be very helpful to physician users, at least.

David Bates – Brigham & Women's Hospital

Yeah. So it sounds like we're getting to consensus here, and maybe we should just – again, Michelle, we should reword this some and provide an example or two to make it – make it clear.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Okay. Will do.

David Bates – Brigham & Women's Hospital

And the last –

[Crosstalk]

Danny Rosenthal – INOVA Health System

One comment on this was that the group felt that the HeD should be encouraged, but as your group is suggesting, it's not ready for prime time yet. So I don't know how that type of encouragement is communicated.

Charlene Underwood – Siemens

Yeah. I know.

David Bates – Brigham & Women’s Hospital

I agree with that assessment. It usually doesn’t get in – make it into certification criteria per se.

Charlene Underwood – Siemens

Right.

David Bates – Brigham & Women’s Hospital

But sometimes we’ve had that – we’ve had a paragraph, you know, before the criteria themselves that provide a little background. That’s the sort of point that one usually could make there.

Danny Rosenthal – INOVA Health System

Got it.

David Bates – Brigham & Women’s Hospital

Okay. And it sounds like –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Maybe the encouragement is to just – maybe – this is Leslie. Maybe that encouragement is to define a template within the existing data structure, like the consolidated CDA, a template for result reporting of clinical decision support artifacts. So maybe we can – our encouragement can be pretty specific to get that expert system information back into the record.

Danny Rosenthal – INOVA Health System

Mm-hmm.

David Bates – Brigham & Women’s Hospital

Okay. And it sounds like the last one was not controversial.

Danny Rosenthal – INOVA Health System

Correct.

David Bates – Brigham & Women’s Hospital

Okay.

Danny Rosenthal – INOVA Health System

And that is our –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Actually – I’m sorry, Danny – there was a lot of confusion from Danny’s workgroup about what the actual intent of this was, so we probably need to fix that wording as well.

Danny Rosenthal – INOVA Health System

Got it. So the confusion was that it seemed a little bit too basic. So use of info in systems to support maintenance of lists. Michelle clarified that a little bit, that this was referring to using decision support to, for example, automatically – making suggestions on the problem list. So an example that we discussed as a group is can decision support say this patient likely has diabetes based on their fasting glucose and A1Cs, and the –

David Bates – Brigham & Women’s Hospital

Yes.

Danny Rosenthal – INOVA Health System

– group said, of course, that’s what decision support was built to do. So we weren’t sure if we understood, is that what this thing was sort of getting after? Decision support can be used for diagnoses, pathologies, etcetera?

David Bates – Brigham & Women’s Hospital

So here, the focus was actually for problem lists in particular. I think the word problem got dropped somehow.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. Well, there was a suggestion for both – for the problem list and med list, and med allergy list, actually. Originally, that was proposed as certification criteria, and then we moved them – by themselves, and then we moved them into clinical decision support. So – but we should probably give examples, like an EEG, for the lists, which I think might help better define what we're asking for.

David Bates – Brigham & Women's Hospital

Okay. Well, I certainly got confused about what we were asking for. I couldn't remember what this related to at all, the way that it's worded now.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Okay.

Charlene Underwood – Siemens

This is Charlene. I'll go back to this one. When we looked at the med rec issue, because we looked at could we reconcile problems and reconcile allergies, as well as medications, because the focus has been on that. Out of that process fell the need to improve the accuracy of the problem list as a first step, and that's probably why allergies fell into that process. So what we said is if we're going to work to reconcile, we need to get it accurate in the first place.

So the focus was could there be clinical decision support that helps to improve the accuracy of the problem list? And we said that vendors do that a lot of different ways, and there's a lot of different approaches to that. We don't want to inhibit those. But clearly, having a focus on an accurate problem list would help us to move to the next step of more accurate reconciliation. So that was where the request – the concept came from.

David Bates – Brigham & Women's Hospital

Yeah. Okay. I think if we said problem, medication, and allergy lists, that would be – that would be helpful.

Charlene Underwood – Siemens

So do we need to extend it to problem and allergies, too, do you think?

David Bates – Brigham & Women's Hospital

Well, there's very good data about using information around improving the problem list, which then ends up being very useful for everything else.

Charlene Underwood – Siemens

Yeah. Yeah.

David Bates – Brigham & Women's Hospital

So I think the problem list is actually the easiest win there.

Charlene Underwood – Siemens

Yeah. That was why – I liked the focus, actually, but it was –

David Bates – Brigham & Women's Hospital

Yeah.

Danny Rosenthal – INOVA Health System

So how would you use it for allergies? I mean, would an example be an alert to the extent of this patient has an allergy to penicillin, yet has received penicillin ten times since that allergy was documented?

David Bates – Brigham & Women's Hospital

Or you might – you might have a tool that went through a note and identified an allergy – you know, that was recorded in the note that was not recorded on the allergy list

Danny Rosenthal – INOVA Health System

Right. Got it.

Michael Zaroukian – Sparrow Health System

Right. And this is Mike. In our system, we have a mechanism to say why did you stop the medicine, and the physicians who are assiduous and say why can – and that's a repeated event, either across a pharmacologic class or category, that could inform an allergy or intolerance that should be on the list but isn't, so that that doesn't happen again.

Danny Rosenthal – INOVA Health System

Got it.

Michael Zaroukian – Sparrow Health System

Yep.

David Bates – Brigham & Women's Hospital

Yeah. Okay. Okay. Well, this has been a really good discussion. So let's see. What – what do we need to do next?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle. I think we are – have kind of finished up with the CDS work –

David Bates – Brigham & Women's Hospital

Yeah.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

– based on Danny's feedback. We can edit some of the language, and I'll share that back with some folks on the call today. But I just want to thank Danny and Marjorie for all of their help with providing feedback to the Meaningful Use Workgroup.

David Bates – Brigham & Women's Hospital

This was really helpful.

Danny Rosenthal – INOVA Health System

_____.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Okay. So next slide.

[Crosstalk]

David Bates – Brigham & Women's Hospital

Okay. So next is advance directive, and listed here is what functionality is needed to achieve the goals, and the Stage 3 functionality goals are that all the relevant data will be accessible through the electronic records, that it will support timely, safety – safe, effective care and prevention, and it will help avoid inappropriate care. This seems reasonably straightforward to me. Any comments about that?

[Crosstalk]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle. Sorry. This was discussed on a previous call. We kind of changed this a bit. So I would just ask if anybody has any feedback on language, that they either share it now or share it with me offline so that I can fix the language.

Christine Bechtel – National Partnership for Women & Families

I – this is Christine. I thought the language looked good, and was reflective of our last conversation. I wasn't sure what where to go to incorporate meant. So in other words, the e.g. piece was really supposed to be like instructions about where to get a copy of it if it's not stored in the record, or where to, you know, figure out what the contents are. But I wasn't sure what where to go to incorporate meant.

Charlene Underwood – Siemens

Yeah. I agree. This is Charlene.

[Crosstalk]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So maybe that part should just be taken out.

Christine Bechtel – National Partnership for Women & Families

Well, yeah, I think so. I don't know who wrote it, but –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I did, so I probably made it unclear. So if I just take out the and where to go piece of it, will that –

Michael Zaroukian – Sparrow Health System

So this is – so this is Mike. Let me add one more thing. So I agree with everything Christine just said. It is really good. It reflects it well. I found it helpful because I thought what we said was we wanted to have some information about it with regard to where we would go to find it and incorporate it into our record. So I still think that's a useful thing. I don't know that we want to stay with it. But I would find it useful.

Christine Bechtel – National Partnership for Women & Families

Right. No. What I'm suggesting, Mike, is to say e.g., instructions regarding where to find the document or where to get more information about its content.

Michael Zaroukian – Sparrow Health System

Right. Okay. So not to eliminate, but maybe –

Christine Bechtel – National Partnership for Women & Families

Broad and flexible.

Michael Zaroukian – Sparrow Health System

– _____, yeah, maybe reword it a bit more.

Christine Bechtel – National Partnership for Women & Families

Yeah.

Michael Zaroukian – Sparrow Health System

Okay.

Christine Bechtel – National Partnership for Women & Families

Yeah. So broad and flexible, but still being clear. The only other comment that I did have on this, and it applies to a number of the other ones, every single one of these is supposed to have a threshold indicator, and – you know, like low, or medium, or high, or whatever, which we – which were based off of the former measures, and that's missing on a lot of these, including this one. It's in some of them, though.

George Hripsak – Columbia University

Right. We agreed that every objective will have low, medium, high?

Christine Bechtel – National Partnership for Women & Families

Yes. And it's in some –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

I know we've circled on this a number of times. I think – I thought we agreed only if something was new, but either way. Where do we – where did we land I guess on the threshold for this one? To keep it –

Christine Bechtel – National Partnership for Women & Families

Well, I think you have to go back and look, but it's two different ones, right? So – and one is – so you have core for EH, so, you know, obviously, that's – you can kind of figure that out based on what it has been. And then there was menu for EP, and that is new. So we have to go back to what – you used to – we used to have that in the old stage – in the older version that had – it had a, you know, if it was ten percent _____ –

[Crosstalk]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. So there was a Word document sent out as well, so you can track back to the Stage 2 and the former objective. So for Stage 2, it was 50 percent, so I don't know – I would call that a medium threshold

...

Christine Bechtel – National Partnership for Women & Families

Yeah. Yep.

[Crosstalk]

George Hripsak – Columbia University

Well, I don't know. If we're going back to the entire – I mean, if – I'm afraid we'll go back to our August presentation, which was rejected. I mean –

Christine Bechtel – National Partnership for Women & Families

No.

George Hripsak – Columbia University

– if we're just going to return all our objectives back to – and even low is 10 and medium is 50 and high is 80, I mean, it's really just going back to what we presented in August, and we were asked not do that.

David Bates – Brigham & Women's Hospital

But George, are you saying that we should not have thresholds? I think we should have thresholds for each of them.

[Crosstalk]

Christine Bechtel – National Partnership for Women & Families

Yeah, we agreed that we would have thresholds for each, but that they weren't a percent anymore. We finally agreed, because what we said was it's not useful to CMS, and they agreed with us that, you know, to just sort of say, here's an objective, you figure it out. It's also not useful to the public, unless you're on this workgroup and have a sense of what we meant, they have – you know, the first – they're going to have a 60 day comment period to react to a brand new threshold they have never seen, and that does – is not consistent with trying to signal to the vendor community or to the provider community as far in advance as possible.

So we long ago agreed that we would put not the thresholds that we used to have, but a suggested, you know, sort of low, medium, high, to give people a sense of what we were talking about, so they didn't – they didn't see, you know, EPs didn't see something that was really meant to be, you know, you're doing this for a handful of patients, but they think, oh, my God, I have to do that on everybody, and they flip out. So we had agreed to do that a long time ago. We just – it's just not made the translation over on all of them.

Michael Zaroukian – Sparrow Health System

So this is Mike. Just as a primary care doc, let me weigh in a little bit. I mean, certainly for primary care, we see this as part of our job. Medium would be fine. We do it today, as long as our EMR can support it. I think for ophthalmologists, they'll never be making the decision, and therefore they probably – it's one of those where you ask, is there an exclusion for anybody?

Christine Bechtel – National Partnership for Women & Families

Yeah. It's a menu item, Mike.

[Crosstalk]

Christine Bechtel – National Partnership for Women & Families

It's a menu item. If you're an ophthalmologist, you're not going to pick this one.

Michael Zaroukian – Sparrow Health System

I know, but –

Christine Bechtel – National Partnership for Women & Families

It's core for hospitals only.

Michael Zaroukian – Sparrow Health System

Right. Right. So it's core for hospitals –

Christine Bechtel – National Partnership for Women & Families

So – but let me – can I interrupt you to say I don't – I am – I have zero interest in going around the tree on low, medium, high anymore. We have been working with this – these criteria for a long, long time. All I'm pointing out is a process issue, that we've already talked about those thresholds. Unless there's a substantive change to – you know, that really changed what the criterion meant, all I'm asking is that we go back and at a minimum for the new ones, we have a threshold indication, but I – my recollection, and somebody can go back and check, was that it was for all of them. But what I hear you saying, Michelle, is it was for at least all the new ones, and that's a little different from what I remember but that's – you know, that's better, anyway.

David Bates – Brigham & Women's Hospital

Okay. So do we have consensus that we do want to have the thresholds for everything? At least for the new ones? And –

Christine Bechtel – National Partnership for Women & Families

Well, we had consensus before. We had an agreement to do it before. So I don't know if people are –

George Hripsak – Columbia University

Well, I mean, I did miss a call a few weeks ago, and that may have been the call, because I remember saying to Michelle why were thresholds back.

Charlene Underwood – Siemens

Yeah.

George Hripsak – Columbia University

And so that was probably the call I wasn't on, where apparently this was decided. And I only saw it crop in in a couple of them, so I thought what happened on that call, although I didn't review the transcript, what I thought happened is you guys decided that these are important ones to state the threshold, not we're going to put all the thresholds back, whether the numeric or qualitative, put all the thresholds back.

Christine Bechtel – National Partnership for Women & Families

So rather than spend time debating on people's memories, can we just have somebody go back and look at the transcript? And, I mean, unless – if everybody's on board with at least doing that again for the new ones, then, you know, great. But otherwise, I think we need to look at the transcript, because I feel very strongly about this. I think it is a total disservice – forget patients and families, which is usually my point of view. I think it's a huge disservice to providers and vendors to not have any sense of the scope of magnitude until a very short little teeny public comment period.

David Bates – Brigham & Women's Hospital

No, I think so, too. I agree with that.

George Hripsak – Columbia University

I just worry about – I mean, my objection is we're four years off from doing this, and so to say it's – you know, to pick – in ... picking a threshold, and then even picking a level is hard four years out from when this is going to be implemented.

Christine Bechtel – National Partnership for Women & Families

But I think it's – that same problem applies to every – the substance of every single criterion in the sense that we don't know the performance in the current stage that's operational. We don't know how the standards community is going to evolve. So all of this is subject to, you know, the sort of caveat that we made these on this date with this information. But that's always been the case. That doesn't apply to just the thresholds, by any stretch. And what we did agree is that we wanted to get out of the business of saying, well, gee, we might set it at 50 percent now, but maybe it should be at 75 percent later, that those incremental movements didn't matter. So we just needed to give people a general sense of the scope of the workflow change that they might have to make.

David Bates – Brigham & Women's Hospital

Okay. So let's – let's – I mean, I think we should say something about it, and we can then review in the interim the transcript. For this one, I think we agreed that it was medium, correct?

Christine Bechtel – National Partnership for Women & Families

Mm-hmm.

David Bates – Brigham & Women's Hospital

Okay. Can we move to the next one?

Charlene Underwood – Siemens

May I just – this is Charlene. I just wanted to ask a clarifying question, and I could have missed this call, but we did have the conversation about the age of the patient. And I know one of the recommendations that came in was that everyone should have an advance directive. Do we just leave it because this – this is the important – we just want to definitely make sure that people over 65 have one. So did we have that discussion or –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yes.

David Bates – Brigham & Women's Hospital

We did have that discussion. Yeah. And, you know, it turns out that there's some evidence that this is a reasonable threshold, and it's also just the age that Medicare starts.

George Hripsak – Columbia University

What's a reasonable threshold?

[Crosstalk]

David Bates – Brigham & Women's Hospital

Sixty-five.

George Hripsak – Columbia University

Sixty-five percent of people over –

David Bates – Brigham & Women's Hospital

No, no.

Charlene Underwood – Siemens

No, no.

[Crosstalk]

David Bates – Brigham & Women's Hospital

No, the age of 65.

George Hripsak – Columbia University

Oh, yeah, yeah, yeah. Okay. Sixty-five. And medium means 50 percent, or how many people are asked – what – are they – 50 percent we record whether they have an advance directive, right? Fifty percent –

David Bates – Brigham & Women’s Hospital

Correct.

George Hripsak – Columbia University

– don't have an advance directive, right?

David Bates – Brigham & Women’s Hospital

It's not whether they – it's not whether they have it or not. It's whether you ask.

George Hripsak – Columbia University

Okay.

Christine Bechtel – National Partnership for Women & Families

You're just recording presence or absence.

David Bates – Brigham & Women’s Hospital

Yeah.

Christine Bechtel – National Partnership for Women & Families

You're just saying yes or no. They have one or they don't, on 50 percent of patients. It's not that 50 percent have one.

David Bates – Brigham & Women’s Hospital

Okay. We ready to move on to the next one?

Christine Bechtel – National Partnership for Women & Families

Yeah.

David Bates – Brigham & Women’s Hospital

Okay. So the next one is on using relevant data to identify patients who should receive reminders for preventive or follow-up care. The threshold is low. Oh, we said that the reminder should be shared with patients in the format of the patient's preference, and in stage 1, this was – no, is the orange thing really relevant here?

[Crosstalk]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So the orange is in there because – Christine, maybe you can help me – it – maybe two calls ago, we discussed that perhaps when we do our final review, that there may be some items that we could drop, because they're – because of the number of objectives and things that we've, you know, pushed harder on from stage 1 to Stage 2, perhaps, and Stage 3 we don't have a requirement on them. A lot of that work was done in the consolidation work that Christine led. But in order to ensure that there wasn't anything that we missed, I just added in where it was for stage 1 and Stage 2, so that –

Christine Bechtel – National Partnership for Women & Families

Yeah.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

– that could help in considering.

David Bates – Brigham & Women’s Hospital

Yeah.

Christine Bechtel – National Partnership for Women & Families

So what I would have probably done here, Michelle, is just one other piece of information, which is when you have a menu item, the percent from stage 1, the percent of providers who selected it. So I believe in this case, this was one of the least selected menu items. So as opposed to advance directives, where – and we probably should have this – I don't think we had the yellow box on that slide – where it was a very frequently selected menu item in stage 1 for EH. It goes core in Stage 2. So if we're going to look at these with a consolidation eye, that, you know, advance directive might, for hospitals only, and again, only if it's recording presence or absence, it could be something we argue we would retire.

However, the objective changed substantially, which is to say it became actually a lot more useful to either have an objective that stored the document or, you know, instructions about where to find it. You see what I'm saying? So in this reminders case, I think it's trying to signal that it was menu in stage 1, although it was one of like the bottom three most infrequently selected, and then it went to core in Stage 2. But I don't think that it changed much. So let's see. In – I think it was more than – oh, that's what – that's why.

So it was more than ten percent was the threshold in Stage 2. So I think what – the reason there's a threshold here is we're trying to incrementally raise it up somehow. So hopefully, that gives context.

George Hripsak – Columbia University

So why is – no, but I don't understand. A minute ago, we said we were going to low, medium, high –

Christine Bechtel – National Partnership for Women & Families

Oh, and –

George Hripsak – Columbia University

– and now we're putting numbers and we're tweaking it by a few percent. So are we ____ ten percent or not?

Christine Bechtel – National Partnership for Women & Families

Yeah, I don't – I don't remember why we did that, or if there was a reason specifically, or if we didn't mean to do that, and it should have just said low. I don't – I don't know that. I just do want to make sure – yeah, in Stage 2 – I mean, in Stage 3, I think the big difference is not really the threshold. It's sharing the reminder in the format of the patient's preference, and then laying out what those preferences are. That was not – and depending on the capability of the provider. That was not done in Stage 2. So that's really the new thing. I think it's fine to take out the 20 percent, but leave the low in.

David Bates – Brigham & Women's Hospital

Okay. And are people comfortable with that? With that minor change? Okay. If so, let's keep going. This next one was EHs should automatically track meds from order to administration, using assistive technologies in conjunction with eMAR, and it's also recommended that CEHRT provide the ability to track mismatches for quality improvement. Okay? Can we go to the next one?

So the next one is for both EPs and EHs, imaging results should be – I think it should accessible, not assessable, right?

Christine Bechtel – National Partnership for Women & Families

Yes.

David Bates – Brigham & Women's Hospital

So accessible, and results consisting of the image itself and any explanation or other accompanying information. Something is missing there.

Christine Bechtel – National Partnership for Women & Families

Yeah.

David Bates – Brigham & Women's Hospital

Should be available or something like that? And this is recommended as menu for EPs and core for EHs.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So this is Michelle. We were waiting to review this one. The Standards Committee, they're presenting recommendations on image sharing at their December 18th meeting.

David Bates – Brigham & Women's Hospital

Okay.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So we were waiting for their recommendations before we looked at this one anymore. We also have _____
–

[Crosstalk]

David Bates – Brigham & Women's Hospital

Okay. Could you still make the language –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yes. Yeah.

David Bates – Brigham & Women's Hospital

– language changes that we just identified? Yeah. Because there's –

Christine Bechtel – National Partnership for Women & Families

Yeah.

David Bates – Brigham & Women's Hospital

Okay. And then we won't spend any more time on it now. We'll come back to it. Next one? So next is EPs and eligible hospitals record patient family history as structured data for one or more first degree relatives. It's recommended that this stay a menu, and that the record have the capability to take family history into account for CDS interventions.

George Hripsak – Columbia University

You know – this is George. This doesn't make a lot of sense, since we got rid of the three priority areas. So I don't know what we do with this. I mean, this is just a silly objective, because we want structured – I mean, a family history is good, but structured data without specifying what you're structuring means it could be any disease. And we did that because if it's an ophthalmologist, they could do theirs, someone else – but if you're doing heart attacks, you know, you want to know what age they had the heart attack. If you're doing cervical cancer, you may want to know how many babies they had. If you're doing some other family history disease – so what you're going to ask them about the disease depends on the disease and what purpose you're using it for.

So you're kind of covering all of medicine, and to say that has to be structured, you know, I don't know what that means. Maybe we mean just the name of the disease has to be structured, and there's a free text field where you put in the extra information that actually might be useful for a doctor. So we have a – we have a desire for this thing to work, but – so the way we fixed it before, we did what, MI, breast, and colon or something? I forget if those were the three we picked.

David Bates – Brigham & Women's Hospital

Yeah. Those were the three most important ones _____ –

[Crosstalk]

George Hripsak – Columbia University

So _____ on that, where then you could say, okay, well, I could sit there and come up, what's important in MI, breast, and colon, but, you know, for good reason, we didn't want to stick it with – stick with those three, because they're not relevant for all our specialists. And why not make this broader for specialists? So I'm fine with that. But once we did that, I don't see how it can be structured anymore.

[Crosstalk]

David Bates – Brigham & Women’s Hospital

You don't want to make it unstructured either, George. I mean –

George Hripsak – Columbia University

Yeah, but what are you going to put? When you say you want it structured, you’re going to make it a LOINC family history?

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Well, George, this is Leslie. It could be a LOINC family history, and it could also be patient-generated. I mean, this is one of the areas where we thought there was a great opportunity for patient-generated health data ... the record.

George Hripsak – Columbia University

Well, the how are you going to get the patient – yeah, but Leslie, how are you going to get the patient – I – patient-generated is fine by me. I’m just saying, how are you going to get patient-generated structured data into the certification criteria?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

We’re doing it as a – it’s a HL7 consolidated CDA template structure for questionnaires and responses. And so you would have a structured questionnaire going out to a patient on family history, and have it even include a checklist item that you’re asking ... to fill out, and that item can be coded by to LOINC or SNOMED. So it really becomes a question of identifying, here’s the – here’s the template structure, which could be the consolidated CDA, for input from patient-generated health data. That would get us a long – a long way towards this.

George Hripsak – Columbia University

No, but what I’m asking – so I think if what we’re saying is it has to be in a – in a structured messaging format, that’s fine. I’m saying like is a vendor supposed to now come up with the standards they’re going to use for all diseases that might be in the family history and entered by the patient, and what the responses might be? Like in other words, age that they contracted it, how many babies they had, whatever is the – you know, the modifiers that make the family history useful?

Or perhaps we’re saying we just want to structure the main disease they had, and then everything else is like a free text field in the – in the CDA or something. Like that might work, too. I’m just saying it sounds like an insurmountable task.

Amy Zimmerman – Rhode Island Department of Health and Human Services

This is Amy, and I joined. I’ve been quiet, but I have been on. But I think on this one, I think we have to go back to what is the purpose we want the information for. Is it to make it easier for patients, so they don't have to keep re-reporting and rewriting the same thing? Or is it more – if it’s for clinical decision support, I think you have to have it in some structured with some level of accompanying information, or the decision support can’t run. Or is it just for better documentation for a provider to look at the record? I think –

[Crosstalk]

Amy Zimmerman – Rhode Island Department of Health and Human Services

– it goes back to what we want it for.

David Bates – Brigham & Women’s Hospital

Yeah. It’s for clinical decision support.

Amy Zimmerman – Rhode Island Department of Health and Human Services

So I think we have to then have this conversation in the context of how can we capture it that will make it useful for clinical decision support. So, you know, if I had a lot of family history on breast cancer, then I – my recommendation for when I start mammograms may be very different than someone else. But that data has to be there if the clinical decision support is going to work.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle. I just want to add that it was required for structured data in Stage 2.

Amy Zimmerman – Rhode Island Department of Health and Human Services

Mm-hmm.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So language is just really transferred over.

David Bates – Brigham & Women’s Hospital

Yeah.

George Hripsak – Columbia University

Oh, and then so in Stage 2, what are the certification criteria? Is there any structure to the data, or is it just – well, we don’t – do we have the – do we have the test scripts for certification for Stage 2? We must. So what does it test for?

Michael Zaroukian – Sparrow Health System

So this is Mike. I thought it had to be SNOMED code – encoded.

George Hripsak – Columbia University

So we’re just going to encode the disease, but not the modified to the disease? Which might be an answer.

Michael Zaroukian – Sparrow Health System

Yep.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And if it comes in as a consolidated CDA, then the structure can – we can build upon that structure as well. So if we say – I think this would be a big win.

David Bates – Brigham & Women’s Hospital

So George, I think this worked fine in one round already, and that we should probably just go with it.

George Hripsak – Columbia University

All right. It’s just – I mean –

Charlene Underwood – Siemens

I think this is a –

George Hripsak – Columbia University

– I’m a –

Charlene Underwood – Siemens

Wait.

George Hripsak – Columbia University

Sorry. Go ahead.

Charlene Underwood – Siemens

Yeah. This is Charlene. I think we’ll get a lot of feedback on this particular one, because – and HL7 has an [audio glitch] around family history, so there’s opportunity to improve on this space. But the standard is pretty immature. This is being implemented. So – and again there’s a lot of variation, as we discussed, in this space. So it’s – you know, the more we can provide policy direction on this and why it’s important, I think it’s going to be important at the end of the day.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Also, remember, with this delay, how much time we have to make it solid. And so if we say we've already got work being done on the consolidated CDA, we've already identified SNOMED, and now we want to further constrain it, as Charlene instructed, I think there's great opportunity.

George Hripsak – Columbia University

Is Stage 2 specific to the three diseases? I can't remember.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

No.

Michael Zaroukian – Sparrow Health System

Nope.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

And I do want to confirm for Stage 2, it was SNOMED and HL7 version 3 criteria.

George Hripsak – Columbia University

All right. I mean, that's fine. I mean, basically, we're just making ourselves feel better. You can't do decision support without having – really knowing what the person said, and just saying we're going to use SNOMED and HL7 doesn't really get you the quality data you need to do decision support necessarily, unless the vendor, you know, does it – and they'll all do it slightly differently. But it's okay to go ahead.

David Bates – Brigham & Women's Hospital

Okay. So let's move on to the next one, which is that EPs should record an electronic progress note which they authored, and that the electronic progress notes should be created, edited, and signed by the – an EP as the – of the eligible hospitals, and those should be text searchable, and non-searchable, scanned notes do not qualify, but drawings and other things can be included.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is –

[Crosstalk]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

You'll see – I'm sorry. You'll see on the next slide there's the information from the clinical documentation hearing. I just wanted to confirm that we had fully closed the loop, and all of the recommendations from that hearing were actually applied. And I do think there are a few things that we need to follow up on, whether they get into this objective itself, or if there are a few things that maybe perhaps need to be looked at in other places. But I just wanted to make sure that that didn't get lost.

David Bates – Brigham & Women's Hospital

Right. I think – are we going to talk about those on the next slide?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yes.

David Bates – Brigham & Women’s Hospital

Yep. Okay. So maybe let’s move to the next slide. The recommendations from that hearing were to move this to core, to not prescribe or prohibit method of clinical documentation, to help the reader assess accuracy and find relevant changes by making the originating source clear, to improve accuracy and engagement and to guard against fraud, that they should have the functionality to provide progress notes as part of a – any objective for view, downloading, and transmit. That further, innovation and research is required to collect and display meaningful information rather than just text. That we should increase education about E&M coding criteria, and that the Standards Committee should be asked to look at what standards are needed to ensure that certified EHR technology can help providers maintain legal record content for disclosure purposes.

[Audio glitch]

Charlene Underwood – Siemens

Hello?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Hello? Are we still there?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Everybody okay? Sorry about that. I’m not sure what that was. Did we lose David?

David Bates – Brigham & Women’s Hospital

No, I’m here. So any comments about the –

[Audio glitch]

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

This is Michelle. The one that I’m most concerned about is the one in the middle, about to improve accuracy, to improve patient engagement, to guard against fraud, the EHR should have the functionality to provide progress notes as part of the MU objective for view, download, and transmit, and I think that’s somewhat related to originally in the RFC there was a question about OpenNotes. And I don’t know, maybe we resurrect this when we do our final review of patient and family engagement, but I just wanted to kind of leave a placeholder for that, to make sure that we did discuss that. And Christine, maybe I can follow up with you offline, if you think there’s an appropriate place, or what your thoughts are. But I just didn’t want that little bullet point to get lost.

Michael Zaroukian – Sparrow Health System

And this is Mike. I certainly support the ability to do it, so whether it’s a requirement or whatever to actually share it can be a separate item. But to give us the capability to do it would be great.

David Bates – Brigham & Women’s Hospital

Yep. Okay. Other comments about this? Okay. Let’s keep going. Next is the eligible hospitals should provide structured lab results either directly or indirectly using LOINC to ordering providers. That’s a pretty straightforward one. Go to the next one.

The next one was that eligible professionals should use the certified EHR technology to assist with follow-up on orders, consult requests, etcetera, to improve results management. We recommend an acknowledgement within three business days of when orders are resulted. And then we recommended the identification of abnormal tests, the ability to indicate a due date for orders, notification when results are available and/or not completed by a certain time, and then the record of date and time that the results are reviewed, and by whom. Any comments –

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Per the previous discussion, I’m just going to take out the ten percent and leave low for the threshold.

David Bates – Brigham & Women’s Hospital

That’s good. Okay? Any other comments? Okay. Let’s keep going. The next one is that eligible providers and hospitals should record the FDA unique device identifier when patients have devices implanted for each new device. Okay. Next one.

Charlene Underwood – Siemens

And on that one, just – this is Charlene.

David Bates – Brigham & Women’s Hospital

Yep.

Charlene Underwood – Siemens

A caveat on that. I know there’s a lot of work in this space, but it’s really dependent on, you know, getting that forwarded through the standards community, so –

David Bates – Brigham & Women’s Hospital

What do you mean?

Charlene Underwood – Siemens

I think there – I think – I know there’s an emerging discussion, but are the standards sufficient at this point?

David Bates – Brigham & Women’s Hospital

Yeah, they are. I mean, there is a unique device identifier, and that has to be on all devices that are implanted going forward.

Charlene Underwood – Siemens

Okay.

Christine Bechtel – National Partnership for Women & Families

That is an FDA requirement.

David Bates – Brigham & Women’s Hospital

Yeah.

Charlene Underwood – Siemens

And is there – are you just – is this just for implantable and other different types of devices? Do you have to qualify that?

David Bates – Brigham & Women’s Hospital

This is just for implantable.

Charlene Underwood – Siemens

Okay.

David Bates – Brigham & Women’s Hospital

Just for implantable. Yeah.

Charlene Underwood – Siemens

Okay.

David Bates – Brigham & Women’s Hospital

Okay? Next one. Okay. So this is about medication adherence, and this is another one that we’re awaiting feedback from the – from the Standards Committee. Can we just pass on this now, Michelle?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. I think that we just – because there’s a lot of work that needs to be done on this one.

David Bates – Brigham & Women’s Hospital

Okay. I think that’s better. Next one is care coordination, and the –

[Crosstalk]

George Hripsak – Columbia University

So that's Charlene now?

Charlene Underwood – Siemens

Yeah.

George Hripsak – Columbia University

So that's good.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Oh, Karen, can you click through for the slide?

George Hripsak – Columbia University

Thank you, David, for getting us through that ahead of schedule.

David Bates – Brigham & Women's Hospital

Okay.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Is there a way to get all three on this? No?

George Hripsak – Columbia University

All right. Well, that's the first objective of the group, and we've already seen the previous slide, so that's okay, Michelle.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

There was a change, but that's okay.

George Hripsak – Columbia University

Oh, there was a change?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

You can see the change on the slide, so –

George Hripsak – Columbia University

Okay.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

So for the – for the Stage 3 functionality goals, there was a suggestion to change that second bullet point to care plan components such as health concerns, goals, interventions, and care team members are shared and tracked. It was just a language change that was recommended because the prior version was confusing.

George Hripsak – Columbia University

Okay. All right. Good. So Charlene, do you want to take it from here?

Charlene Underwood – Siemens

I can do that.

George Hripsak – Columbia University

Thank you.

Charlene Underwood – Siemens

The first one was med reconciliation, and again, we touched on this earlier, because we had looked at reconciling other elements in the process. And we kept focused, because of the importance of this particular process, the statement of the previous stages. However, we did make the one change that if you wanted to reconcile for all patients for every encounter, that certainly would be feasible and doable, so that it would just reduce the burden to the providers, if that was their practice choice. So that was the major change that we made in this functionality.

We looked at those other data elements, and again, at this point, as a – on the relative immaturity of those elements, we chose not to advance reconciliation objectives. Okay? Hello? Next slide?

George Hripsak – Columbia University

Yes. Yes.

Charlene Underwood – Siemens

Okay. In the care coordination, what we did is we are focusing – in working with the Standards and Interoperability Workgroup and the long-term care community, we looked at the three key use cases that there – that conditions need to be supported by – there are three major types of transitions. There's basically this concept of a full transfer of care, so for instance, when you're going to the hospital, to a skilled nursing facility, or back to the PCP, or to home. So we identified that as, you know, full transition of care.

Two other types of transitions of care are consult requests. Again, where there's some data that's necessary, but it's a subset of the total record, as well as that response, consult notes. And then we're building on the CDA infrastructure to be able to support that, and standards in each of these particular areas are emerging and being tested and balloted as we speak, and that's really important.

We asked for, in addition, four data elements, and we pretty – we debated this pretty substantially to be included. One was a narrative, which allowed just the – just for a provider to provide a – it's not structured. It's a synopsis of the purpose of the transition, or any information that would facilitate the transition. That was certainly one of the feedbacks we got, was, you know, give the provider some flexibility to do what they need to do to support the transition.

The – this is again where we need to make sure that our language is specific, but the provision, again, in free text, for an overarching patient goal and/or problem specific goal. And again, the good news is in the industry, there's an infrastructure for these different types of goals starting to emerge. Patient instruction, and again, any suggested intervention, so you could throw – you could put potentially orders in there. But again, it just gives them some guidance in terms of very specific instructions. And then lastly, information about the care team members, including the designated caregiver.

So this correlates I think to some of the work that Leslie's team looked at in terms of availability of some of this content for standards. One of the feedbacks – I don't know – is that your next slide, Michelle, the feedback from the vendors?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

That's the next slide.

Charlene Underwood – Siemens

Okay. So again – all right. Any questions on this slide? I think we've been through this 100 times. All right. Next slide.

So, you know, the feedback to this objective was that there is an overall – kind of at the higher level, there is an overall estimate this is large to jumbo, because of, you know, there is the need to be able to, you know, require the request for a consult, and then what form is the request going to take. The most important component, and we've called this out before, is that need to have an infrastructure in place, the concept of the provider directory and some mechanism to be able to know if I'm going to send out the consult request, who's going to hold it, and who's going to make sure that it gets followed up?

And then the other comment was about whether the C-CDA is the right vehicle or not, and I'm not sure that we can really do anything about that one. But again, it was a point relevant to usability.

So, you know, if you look at them, you know, the overall estimate, adding the consult and the resulting workflows, narrative in the CDA, that was a pretty small estimate, and then reporting for the measure. So again, I think the bottom line, this is particularly one where, you know, I think the – a big component of the reason for the estimate was it's just really not well understood. The standard's emerging. We need to do something better about that, to make, you know, the standard work a little bit more visible, because they're clearly – at the end of the day, the sooner they can find out about it, those concepts of the workflows and the usability implications, you know – you know, you don't want at the end of your workflow to just say, oh, by the way, why did you do this transition of care? That just needs to be integrated into the process of, you know, completing your work for a patient.

So any comments on that, or suggestions? I mean, you know, the – I'm not sure what we're – you know, George, what we're really doing with these estimates, but I think this is an area that could be worked and made feasible by Stage 3.

George Hripsak – Columbia University

Right. I mean, so the question I guess is whether this large to jumbo, and actually, that's smaller than – this is one of the smaller ones, because it's not just jumbo, it's large to jumbo. The – whether it's feasible or not, and whether we need to tweak the previous slide because of this estimate. I'm not seeing a lot of tweaking we can do, but that's –

Charlene Underwood – Siemens

Right.

George Hripsak – Columbia University

– I think the question to answer.

Charlene Underwood – Siemens

I mean, the concept is you drop one of the three use cases, right? And that would probably be the – you know, it would correlate, because the same thing – for notification, [audio glitch] notifications today, that's the next one, but it implies having this infrastructure in place. So I don't know if we have to say, well, the – you know, consults are menu and transfer of summary is core or something like that. We could do that. You know, it – dependent on the –

George Hripsak – Columbia University

Yeah. Yep. I [audio glitch] – I see. There it comes. Yeah. I don't know. I mean, I – I mean, I thought you were heading towards notifications being menu, and all of these three being core, types of transitions being core.

Charlene Underwood – Siemens

Yeah.

George Hripsak – Columbia University

All three being core.

Charlene Underwood – Siemens

Yeah. So I think that that's – and I don't know enough –

George Hripsak – Columbia University

I would just – you know, as I'm thinking, I would state the types of transitions as it is, not explicitly say core for all three, but not back off and say menu for one of them.

Charlene Underwood – Siemens

Okay.

George Hripsak – Columbia University

I would just leave it as stated. And they can decide later on, depending on how it goes for a year, that they do have to back off one. But I don't know. Looking at this, I would keep it as is. What do the others think?

David Bates – Brigham & Women’s Hospital

Makes sense to me.

Charlene Underwood – Siemens

And the other – you know, for the EPs, there’s a measure that talks about referrals, too. So I did kind of ask the quality people, you know, am I redundant with that? But that’s where we could actually get a two-fer, if we could link these two things together, right?

George Hripsak – Columbia University

Wait. Say that again, Charlene.

Charlene Underwood – Siemens

There’s a measure in terms – quality measure on referrals.

George Hripsak – Columbia University

Oh, oh, oh, oh.

Charlene Underwood – Siemens

And this could actually – getting an infrastructure to enable to do that could be a two-fer for us. So – okay. Next slide, then. I guess we’ll go to notifications. My screen just went away. So again, notification, again, this one’s one that was recommended by the care coordination community. It seems fairly straightforward, because it’s in many cases a result of a transaction from a registration system. We identified the specific event. We recommended it as menu. Part of that reason is because it gets a little bit complex when we start to think about the patient consent place – consent issue, and therefore, we recommended a pretty low threshold. But again, we felt it was a really important signal to start to get these processes in place.

And there’s evidence in the field, I think people have actually, you know, want this information in the field. We certainly see that in terms of some of the evidence that they want to know if a patient’s shown up, and they actually want to know – actually, they want to know more about what happened in the facility. So we have to think about that. But at a minimum, this just starts to create those – a better structure – a better mechanism to create notifications. Any questions on that?

George Hripsak – Columbia University

Do we – on the threshold – I guess what we were trying to say by saying 25 patients was basically very, very low.

Charlene Underwood – Siemens

Yes.

George Hripsak – Columbia University

____ low – I know that ONC objected to our thresholds that were numbers. Should we just leave it as low?

Charlene Underwood – Siemens

Yes, I’m fine with that.

George Hripsak – Columbia University

Because it is menu, so low is – you know, we would do menu if – it would have to be very low if it were core.

Charlene Underwood – Siemens

Yeah.

George Hripsak – Columbia University

But maybe low is low enough for menu.

Charlene Underwood – Siemens

So let’s take the e.g. off, Michelle.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yep.

Charlene Underwood – Siemens

Okay.

George Hripsak – Columbia University

And then we need to go to the next slide. It's relevant comments on it.

Charlene Underwood – Siemens

This is a hard one to read.

George Hripsak – Columbia University

You want me to read through it?

Charlene Underwood – Siemens

Can you read that one?

George Hripsak – Columbia University

Sure. There was an original response which was jumbo, and they said the estimate depends on approach and availability of standards, identification of triggers, sending the notification, capture who wants the notification, patient consent, tracking and auditing, directory, and reporting a new measure. So then they were – we asked them, well, if the ED and admissions were prioritized, as opposed to the whole universe of stuff, would this become more manageable?

And their answer to that, and that's the current answer, we agree that approaching this new area with the reduced scope is wise, but we still estimate there to be a jumbo quantity of development necessary. This proposal will require new monitoring programs, and some vendors speculate that the processing power required would increase the hardware needs of users. Therefore, the overall estimate is still jumbo, and the list is roughly the same.

Charlene Underwood – Siemens

Yeah.

George Hripsak – Columbia University

The top list and the bottom list. ____ just handling patient privacy concerns, looks like that got added. So that was – that was the statement, that they do want us to limit the scope, but it's still jumbo.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

This is Leslie, and we've been doing ADT messaging for 40 years, and we – so I question that. Also, the ability to use this without consent under treatment and conditions under HIPAA are possible. So at the point of entry, when the patient is asked for their primary care physician, their other physicians involved in care, that is today already gathered. We also have a mechanism with DIRECT to send a message to any other provider.

So I question the jumbo-ness of this if we constrain it to under the treatment conditions under HIPAA, and we use the DIRECT message. We simply are allowing for that kind of notification. This notification will be key to patient management under new reform for ACOs, and just absolutely key to know basics, like can – do I know the patient has been admitted, and can I be involved in that care management as a provider ongoing?

So if we move into the universe of consent, it's jumbo. If we stay where it's even automatic notification to identify care providers or care team members that we've already indicated as part of the care team roster using a DIRECT message, we could potentially inform the majority of people involved and needing to know in care, and not get to a jumbo development effort.

George Hripsak – Columbia University

Michelle, has anyone – has the tiger team commented on whether this requires that special consent or comes under treatment and operations?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

No. We haven't had them look at this specifically.

George Hripsak – Columbia University

So –

Amy Zimmerman – Rhode Island Department of Health and Human Services

This is – this is Amy, and I would echo what the previous person was just saying. I mean, I know – I know there are a lot of HIEs that are providing this service as well using DIRECT. We're doing that here in Rhode Island now. We also have hospitals that are doing it on their own. In our case, the HIE, you do need consent in order to have the ADT go to the HIE. In our model, you need consent. But then the – it's sent to the PCP of record in the ADT feed. But we also have providers that can subscribe to – so this may be another way to get at it. For that care team, you know, in our case now, we have providers that can say, I want to subscribe to these – this set of my patients, and get these ADT notifications or these admissions and discharge notifications.

So I agree, it shouldn't be such a heavy lift if the consent can be dealt with. And if there's a listed care team, I'm not quite sure why under coordination of care and operations under HIPAA, you know, aside from the fact that, you know, like I said, in our case, our HIE is different because you won't get the ADT feed if you're not involved. But this is another place where HIEs clearly – they're doing it all across the country. ONC is pushing this. And this is something where even an HIE could become a certified component on behalf of the EHR.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And –

Amy Zimmerman – Rhode Island Department of Health and Human Services

I always struggle with duplication of what we're putting in and EHR, and what an HIE can do, but –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And this is Leslie. I just would say that if the things that we're asking providers to do in the health reform is to manage patient care, and they won't even know when a – one of their own patients, where they are the provider of record, is admitted into a hospital, it becomes very, very difficult for them to manage that care.

Amy Zimmerman – Rhode Island Department of Health and Human Services

Absolutely.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I mean, we hear this over and over and over again from the providers and the physicians who are involved in primary care all the way through as ACOs. It just doesn't make sense to not have this. And it isn't a big deal if it's existing care team record.

Charlene Underwood – Siemens

So maybe we can clarify this one a little bit, because we did have that conversation that this – and we said, this one should be carved out as a module for certification, so that it certainly can be supported by an HIE infrastructure, because we felt that was important, because they would support exactly what Amy just walked through. You know, whatever mechanism they use for consent and subscription and all that. I mean, that's all powerful stuff. So I don't know. The questions would be do we need to – are there fewer conditions that we would want to notify about? Is there anything that – if it was clarified that this doesn't have to be done directly by the EHR, so is there any way you see scoping it back or adding more clarity to it?

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

What if we say of the providers of record, then –

Charlene Underwood – Siemens

Yeah.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

– the – an automatic notification is sent –

Charlene Underwood – Siemens

Yeah. Yeah.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

– via DIRECT message.

Charlene Underwood – Siemens

Well, I don't know if we can say DIRECT message, but, you know, we could certainly –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Well, we can – it's already a standard in meaningful use, so –

George Hripsak – Columbia University

So Charlene, do you want to – so Michelle, actually, or Charlene, does this sound like – if Michelle tries to take a crack at ED and admissions to do that reduction that we had offered originally, plus we ask the privacy and security tiger team to take a look and see if there are special privacy concerns that will make this infeasible, but leave it in for now as is, menu, low threshold, and then – and get the – see how we rephrase it, and ask the tiger team? Does that sound right?

Charlene Underwood – Siemens

So I – I have one other comment, which is I'd like to put in admissions and discharges.

Amy Zimmerman – Rhode Island Department of Health and Human Services

And discharges.

[Crosstalk]

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Back up one.

Charlene Underwood – Siemens

Is that there already?

George Hripsak – Columbia University

Yeah. That won't be extra work beyond admissions. There's no reason not to do that.

Charlene Underwood – Siemens

Right. And really, from a patient centered medical home and other perspectives ... the PCP, I mean, they may want to know the patient's admitted, but importantly, for readmission reduction, when the patient gets discharged, so they can coordinate care immediately, that's critical.

Amy Zimmerman – Rhode Island Department of Health and Human Services

Yes.

George Hripsak – Columbia University

So ED visit, admission, and discharge.

Amy Zimmerman – Rhode Island Department of Health and Human Services

Yep.

George Hripsak – Columbia University

Those are the three. Okay.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I think the discharge needs to be whether it's discharge from an ED or discharged overall.

Amy Zimmerman – Rhode Island Department of Health and Human Services

I think it's both.

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

Any discharge. Right. Any discharge.

Amy Zimmerman – Rhode Island Department of Health and Human Services

I think it's discharge, and at the same time, I mean, from that perspective, if you're admitted to the hospital from the ED, that probably counts as an admission. So any sort of ED admission and discharge and hospital admission and discharge, you know.

George Hripsak – Columbia University

That sounds fine.

Amy Zimmerman – Rhode Island Department of Health and Human Services

I mean, really, anything that an ADT is already feeding. In our case, we've already – when we started this, we had all sorts of ADTs, and then they scaled them back, because only certain transfers were important, and – you know, but I think really, the admissions and discharge to the ED and the hospital are what's critical.

George Hripsak – Columbia University

Michelle, does that sound –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

And death.

[Crosstalk]

George Hripsak – Columbia University

We're actually at time, so we're going to have to discuss this more. But Michelle, do we – does that sound like a plan for a next step until we come back to it?

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. That's fine. I just want to – Charlene, can you correct me if I'm wrong? I thought that when we had the conversation with Tasha from EHRA that the group decided that this is important enough that even though there was discussion that this was going to be a jumbo one, that this one was important enough to keep in as is. But maybe I'm remembering the conversation incorrectly.

Charlene Underwood – Siemens

I could be remembering, too, but I think both of those – both the care coordination ones were felt that we had – we should be moving them forward. So –

Leslie Kelly Hall – Senior Vice President, Policy – Healthwise

I heard that as well, and I really question the whole jumbo thing for data that we have been moving for 40 years electronically.

Charlene Underwood – Siemens

Yeah. My only concern of the whole process was I just didn't – I like the approach where the HIE certified – I don't want my registration system certified, because that's way too much overhead, but sending these transactions is what we should be certifying. Right? So –

George Hripsak – Columbia University

All right. So let's rephrase it and ask the tiger team and then check it. Does that sound good?

Charlene Underwood – Siemens

Yeah. And I think under the – we use that HIPAA language that Leslie recommended, just to clarify, because I think that's important.

George Hripsak – Columbia University

All right. I think that's the last one, right?

Charlene Underwood – Siemens

Yes.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yeah. We got through everything.

George Hripsak – Columbia University

Thank you so much, Charlene. So thank you, David, first of all, for your work, and Charlene for yours. And then I guess unless you have another announcements, just public comment.

David Bates – Brigham & Women’s Hospital

You're welcome. That's it.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yep. Thank you to you both, and thank you to Danny and Marjorie, again.

George Hripsak – Columbia University

Yes. Yes. Thank you.

Public Comment

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Operator, can you please open the lines?

Operator

If you'd like to make a public comment and you're listening via your computer speakers, please dial 1-877-705-2976 and press star 1, or if you're listening via your telephone, you may press star 1 at this time to be entered into the queue. We have no comments at this time.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Thank you, and thank you, George, for leading us today.

George Hripsak – Columbia University

Thank you, Michelle.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Okay.

George Hripsak – Columbia University

Okay. Goodbye. I'll see you in ten days. Hear you in ten days.

Michelle Consolazio – Federal Advisory Committee Act Program Lead – Office of the National Coordinator

Yes. The next meeting is December 20th.

Charlene Underwood – Siemens

Thank you.