# Interoperability Standards Priorities (ISP) Task Force

Transcript
August 31, 2018
Virtual Meeting

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**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Good morning, everyone. And welcome to the Interoperability Standards Priorities Task Force. Happy Friday. We will officially call the meeting to order starting with role call. Ken Kawamoto?

**Kensaku Kawamoto – University of Utah – Co-Chair**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Steven Lane?

**Steven Lane – Sutter Health – Co-chair**
Present.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Anil Jain?

**Anil Jain – IBM Watson Health – ISP Task Force Member**
I'm here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Arien Malec? Not here. Andy Truscott?

**Andrew Truscott – Accenture – ISP Task Force Member**

Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Clem McDonald?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Cynthia Fisher? Not yet? David McCallie?

**David McCalllie – Cerner – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Edward Juhn?

**Edward Juhn – Blue Shield of California – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Terry O'Malley?

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Les Lenert? Not Yet? Jack Po? Raj Ratwani? Okay. Ram Sriram? Ricky Bloomfield.

**Ricky Bloomfield – Apple – ISP Task Force Member**
Good morning, I'm here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Sasha TerMaat? Scott Weingarten? Cheryl Turney? Tamer Fakhouri?

**Tamer Fakhouri – One Medical – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Tina Esposito?

**Tina Esposito – Advocate Health Care – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Valerie Grey? And Victor Lee?

**Victor Lee – Clinical Architecture – ISP Task Force Member**
Here.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Okay. Thanks. We'll circle back halfway through to see if others have joined. I will turn it over to Ken and Steven, the co-chairs.

**Steven Lane – Sutter Health – Co-chair**
Thank you so much, and welcome, everybody. Is the sound quality acceptable for folks?

**[Crosstalk]**

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
It's perfect.

**Steven Lane – Sutter Health – Co-chair**
Okay. We'll proceed then. Welcome to today's meeting. And thank you all for making the time. We wanted to start out with a review of the charge of our task force just to keep us focused. We are charged by 21st Century Cures and invited by ONC to make recommendations on priority uses of HIT and the associated standards and implementation specifications that support such uses. Our goals are to make recommendations on priority uses and the standards that support them or may need to be developed for each identified priority, and to identify subsequent steps for industry and government action, and then, bring it back in a report. And I think it's a good idea to reorient ourselves, at the beginning of each meeting, about why we're here.

I think that everyone should have received the notes from our last meeting, which were sent around I think at least a couple of times and are also posted for all of your access. Did anyone have any questions or comments about the notes that they wanted to raise? Great. If not, we can proceed. We'll go to the next slide. Great. Ken, do you want to sort of talk about the survey results?

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yeah. So, thanks for everyone who participated in the survey for the task force members. So, we had a good participation. The only thing that we didn't really account for were when folks said other, there were none that really screamed out. We should reclassify into one of the other pre-defined buckets. But what we did, before we started, we determined a priority that we were going to give people's first choices five points, second choice three points, and third choice one point. And the idea here wasn't to say hey, these are the only things we're going to work on. But we particularly wanted to get a sense of what folks thought was maybe the first thing we should start with, so that we can define a process for working on these priority uses.

And then, perhaps, we can split off into parallel activities to help tackle the others. And this shows the absolute ranking. But just to note, there were many that received a lot of interest from folks. So, obviously, this just shows a top to bottom ranking. But there were many that were fairly close to each other. With that said, orders and results did show up as top. Then, medication, pharmacy, data including opioid related content, then, evidence based care for common chronic conditions, closed referrals. As you can tell, others was a decently represented content. That tended to include things like clinical distance support as well as items related to finances and cost transparency. Then, there were social determinants of health and cost transparency. So, that's sort of what the initial round led to. And I think these are broad enough constructs that I think folks may have been honing in on different parts of these issues.

But maybe I'll pause there, and Steven, if you have any comments, and if other task force members have any comments, too, especially for folks who listed things under other. We'd be very interested in sort of your thoughts on this as well. David, I see your hand up, and then, Clem.

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. Hi. It's been so long since we took the survey, it feels like. I've forgotten exactly how the choices were presented. But standing back from a distance, the one thing that jumps out at me that's missing here is sort of the care coordination and the community thought coordinating care across systems, which strikes me as a major opportunity where interoperability is kind of key aspect. These all sort of feel like they're focused internal to deployment, which is important, obviously. But we also have to focus on the cross system issues. So, I don't know. Maybe that jumps into other, but I'll just register, from a distance, that jumps out at me.

**Kensaku Kawamoto – University of Utah – Co-Chair**

That's a great comment. And I think because we hadn't gone through a process yet of how we were going to tackle priorities, I think maybe once we go through the first one as a group, then, it will become a little bit more clear. Hey, given what we're actually doing in these areas, maybe we should work here. And, again, I think the idea here is not to say because it's not high rank, we're not going to work on it. I think it was just identify where should we start where there's sufficient mutual interest that we can work out the process. Clem and then,

Terry.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
So, I have two kinds of questions. One of them is how does this relate to the draft UCDI, which included – is that a done deal and this is an addition? Because that included notes and the like, that's the first question. And the second one, I'm assuming orders and results is focused on tests and measurements because medications and pharmacies also requires an order. So, just some clarification on that. And then, the last one is that some of these things look like, in an IQ test, which thing doesn't fit in this picture. So, all of these – most of these things are things we can get dead on, move it around within the context of our goals of IT. But evidence based care for common condition is like sort of a little bit more afield. It's something you'd like to have, but what are we saying?

To send that or to discover it or to make people believe in it? And I don't think some of those things are in our scope.

**Kensaku Kawamoto – University of Utah – Co-Chair**
Let me ask you – go ahead.

**Steven Lane – Sutter Health – Co-chair**
I was just going to say, Clem, I think until we dive in, it's going to be hard to answer some of these specific questions. I think one of our goals for today is to kind of agree that we're going to start, and we're going to start somewhere. And we thought that the idea of inviting everyone to vote and to rank them and see what floated to the top made the most sense. So, then, we can dig in and start working on a methodology for teasing this apart because, of course, each of these is going to have many, many facets. So, we –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
I'd just like to clarify that our context is IT, right? We're not trying to change – how do I say it? We're not trying to change the world. We'd like to, but our contract –

**Kensaku Kawamoto – University of Utah – Co-Chair**
We definitely would like to.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
The things we can do with IT, or am I wrong?

**Kensaku Kawamoto – University of Utah – Co-Chair**
I'll try to comment briefly on each one. So, USCDI, I think that is clearly one of the targets. So, as we come into these items, for example, say social determinants of health, that will be clear overlap where we say how do we share whether a person is homeless or not. So, clear overlap. I think the standards include both the transport standards, security standards, etc. But it also heavily is what other data we transmit in these use cases. So, I think that's clearly there. In terms of the scope or the orders and results, I think people saw what they thought should be in it. But I think that will be a core topic of discussion today. What are we going to

include? And then, the what doesn't fit evidence based care. So, I was thinking, on that one, yes, we are not going to get into how can we create better evidence based medicine.

I was thinking, on that one, it's things like really USCDI kind of related things. So, if we want to take better – if we want to prevent lung cancer with lung cancer screening, we need to know how many pack years a patient has been smoking. And even if a system has been storing things like what's the packs per day the patient has been smoking and when did they start smoking, it's not included in the current USCDI, which means there's no way to actually make use of it.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Okay. I think we should say data for or something. Anyway, do it that way. Okay.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Okay. I think next was Terry.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

Yeah. I'd like to list a couple of things that could be, I think, collapsed, and one that I think is missing. So, the one that's missing is under other. And that was communication to and from the individual. So, the patient and family. And so, what's needed to support that? And that fits with the first comment, which says why don't we look along cross multisite exchanges where are coordination is the poster child. But I would add to that poster child the transitions of care, another multisite process. And then, to the collapsed piece, really, orders and results and closed loop referrals are very similar. The process behind them is sort of a query response, query response, query response for each of the branch points of the system. So, it's really sort of a common process that can be used for orders, for referrals, really for transitions of care.

So, same things, if you look at transitions, as a multistep process rather than a one off exchange. So, those are my comments.

**Steven Lane – Sutter Health – Co-chair**

So, why don't we go ahead and go down to the next slide? The next slide in our deck does include what was submitted as other suggestions. So, we just wanted to get this out here because, Terry, I think you made the point that some of this was specified. On some of these –

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**

Excuse me. Ken and Steven, just to let you know, we do have a couple of members who are on the line. I believe Cynthia Fisher is one. So, we may not be able to get them in the Adobe. But for those that are on the phone but not in Adobe, feel free to pipe up, if you have a question or comment.

**Kensaku Kawamoto – University of Utah – Co-Chair**

That's great. Thanks.

**Steven Lane – Sutter Health – Co-chair**

Thank you. But we did look at these other suggestions that came in and bring them back here to share them. We were trying to figure out whether some of these really were so close to some of the others that were being balloted that they should have been counted as votes for those. But we decided to leave them as other but wanted to bring them forward, so people saw them. So, clearly, there's a lot of interest. There are a lot of areas we could focus on. I think we've spent the last couple of meetings discussing those. And, again, I don't think that we should assume that because we decide to focus in on one area that it means other areas are not important or don't warrant our attention. But we do want to start in.

We want to identify an area to focus in on and then, start to look at what is our charge, which is the standards that are available or not available and how we may comment on the standards and their implementation to support the use. I see Ricky's hand up. Do you want to go ahead, Ricky?

**Ricky Bloomfield – Apple – ISP Task Force Member**

Sure, yeah. I just have one comment related to the survey. One aspect also that I think comes across all of these themes that will be important to keep in mind is that many of these items have both enterprise or provider centric uses as well as patient centric uses. And I just wanted to make sure that's called out explicitly because it's easy to miss one or the other, unless it's called out explicitly. And I think some of that comes out, in the other suggestions here, where there are a number of elements of patient centric access, which don't jump out immediately with that initial broader list. So, I just wanted to make sure that we call out that distinction between provider versus patient centric use cases.

**Steven Lane – Sutter Health – Co-chair**

That's a really good point, Ricky. And we actually did run the list by the chairs of the HIT Advisory Committee. And one of the pieces of feedback that we got back was it did seem like a pretty health system centric list and did not highlight those issues that have been identified in surveys and in the public discourse of being of prime interest to patients. So, I think you're absolutely right that, as we dig into any of these, any at all of them, we should be thinking about the various stakeholders and keeping, in front of mind, the needs and desires of the patient and caregiver community.

**Ricky Bloomfield – Apple – ISP Task Force Member**

Great, thanks. And just one example there, the top uses of portals, in general, tends to be access to data, prescription refills, and scheduling. And the access to data piece, there are a number of things that aren't here that consumers would like access to like clinical notes, imaging, etc., which the USCDI takes care of a little bit. But I think that should probably be culled out. And then, scheduling, Argonaut has done some work there. And then, prescription refills, there are no patient centric standards available for that, outside of the broader Share Scripts network. And so, I think that's also something that could be considered. And maybe that's considered with medications or orders. But the way that was worded, it does seem a little enterprise centric.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Tina, I think you had your hand up.

**Tina Esposito – Advocate Health Care – ISP Task Force Member**

Yeah. I was just going to actually – Ricky said it very well. I think that, on the other suggestion slide, the very last bullet resonated with me. And I think, in some respects, it's how we frame what was previously reviewed on the previous slide, to the point that was made. Some of these absolutely support patient data access to medical information. We have some gaps. And let's maybe think about how we get that information or understand those priorities from that perspective of the consumer and/or patient. But in the way we frame what we're prioritizing, there are certainly aspects that will be relevant and appreciated from a patient or consumer perspective, in addition to the health system.

**Steven Lane – Sutter Health – Co-chair**

That's great. Thank you. So, it looks like the hands are down. Let's go ahead just to the next slide. So, the approach that we'd like to take and to get your feedback on is to go ahead and start with orders and results appreciating that we need to define what we're talking about and scope that out. And we would approach this as an entire task force, in the process, clarifying what our approach is going to be, how we're going to try to tease these apart, look at the appropriate standards, and prepare our comments working on that over today and then, the subsequent few meetings. And then, we have heard back from our ONC and support staff that we will have the option of running multiple subgroups in parallel, if we choose to do that. But I think it's probably premature to say whether we will.

We heard pretty clear feedback last time from Les and others that it made sense to try to kind of start out together and get the input and benefit of all participating. So, just pause there for feedback on this approach and whether anybody has any concerns about going forward in this way.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

This is Clem. I don't have my hand up because I can't find the page. I just lost it. But I think it's a good one. I would just kind of clarify the distinction of orders for medicines, which has its own section versus measurements and tests.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yes, Clem, I think that's a good idea. And maybe just the way we're going about this and saying hey, at most, we're going to dedicate three or four as the proposal meetings on a topic or an issue to start sort of implies, perhaps, we're going to be fairly focused perhaps. The idea here is we don't want to spend a year working on just one or two things and leave a bunch of potential priorities on the table. So, I think that will probably be a direct point of discussion today of how did we want to scope this. What are the problems that we're facing that we can see a potential solution path towards? And then, maybe we spend as much time trying to identify those opportunities and potential paths for as many priority uses as possible rather than perhaps going too wide or potentially too deep on a given topic.

**Steven Lane – Sutter Health – Co-chair**

Terry, I see your hand up.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

Yeah. I think this is a great approach. And if we think of the totality of the work that we've got to do as a committee, it's pretty daunting. We're, obviously, not going to stop with the top seven. If we get our opportunity, we'll keep rolling. But starting off with a group effort on one topic where we all sort of learn the issues. So, what is involved in sort of parsing the stuff and then, focusing in and creating, identifying gaps and standards? I think, if we all learn the same process on a common entity like orders and results, then, it gives us the opportunity to break up into smaller groups to tackle other topics but tackle them in a standardized way. So, I think this is outstanding. Great job.

**Steven Lane – Sutter Health – Co-chair**

I can't tell you how happy I am to hear that we have consensus to proceed. So, let's do that. Let's transition over to the Google Doc where I made an attempt to kind of lay out the steps in the process of orders and results, ordering something and resulting it and managing those results with the patient. And my idea there was simply to break this down into pieces because it seemed that that would be a way that we could start in on the discussion of our true task, which I remind you is to identify existing standards and implementation specs that support the use and exchange of electronic health information needed to meet the priorities. So, if we're saying this is our priority, what I attempted to do was sort of break it apart.

And I think here, we can begin to answer some of the questions that Clem and others have been raising and figure out where we want to make a difference. So, I know an earlier version of this was sent around with the meeting materials. I actually woke up early this morning and was thinking about this some more so added some more steps here where I thought they had been missing. So, we are maintaining this on the web, in the Google Docs, with the understanding that all of you have access to that through Google. So, if anybody doesn't, you should be able to contact Lauren and get that arranged. And the way we're doing this so far is Ken and I are managing the editing, in response to your comments feeling that, if we just open it up to everyone to edit, it might be more challenging for us to manage. So, we're open to feedback on that approach.

But just quickly, let's kind of scan this. Or maybe I'll just pause there for any comments. I see some hands up. Terry?

**Kensaku Kawamoto – University of Utah – Co-Chair**

That might have been when he was trying to put down his hand.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

That was an old hand.

**Steven Lane – Sutter Health – Co-chair**

That was an old one? Okay. Ed Juhn, you've got your hand up next.

**Edward Juhn – Blue Shield of California – ISP Task Force Member**

Yeah. A quick question that I had is would it be worthwhile, if we had the committee see how this specific priority use case aligns with maybe current existing policies or ways that we might be able to leverage this in the sense of policy adoption? Or either see how it aligns with current efforts that are currently in flight?

**Steven Lane – Sutter Health – Co-chair**

I think that will be a good thing for us to do. And my thought was, as we kind of go through this, this is what I envision for the next hour say or a little less is that we will go through this step by step process. And as we go, allow people to, again, do just what you're talking about. Comment on the applicable standards, comment on where we might be lacking for standards, certainly policy issues, certainly patient perspective, all of these kinds of things. Let's sort of add those as we go as commentary. And then, what we'll try to do, by the end, is sort of look at what homework can we do or what other resources can we engage to help us to understand, again, the core question, which has to do with standards and their implementation specifications and where those levers could be pulled to make this use of health information better.

**Kensaku Kawamoto – University of Utah – Co-Chair**

This is Ken. If I could just put a comment in. So, I think one approach is to say hey, here are some important priority uses, and we're going to try to do an exhaustive list of all of the standards and activities going on in an area just to document it. I think that would be more like an ISA kind of an approach. And I'm not sure that would provide too much value. I think one of the things we should do, when we look at these uses, is say are there problems with how things are working now. And we should probably focus, when we see a problem, given the present state of the market, to focus there on what are the standards and what are the activities and how can they align, just because we don't have that much time.

And I think documenting current state of things that are working well really doesn't advance the bar as much as finding places where there's issues, and then, finding how we can move forward. So, just a little twist on where do we focus. David?

**Steven Lane – Sutter Health – Co-chair**

David, do you want to chime in, before we proceed?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. I just was going to say that I think that, and maybe it's just a different way of saying what Ken just said, which is we should keep a focus on what problems we're trying to solve, and then, prioritize those problems, and then, address the standards that might or might not be needed. In other words, we have to have some goal we have in mind diving into the single most complex part of healthcare transactions, orders management. What problem are we trying to solve? And maybe that will become evidence, as we dive in. But by the time we're finished, I hope we have a clear list of the problems that we think need addressing.

**Steven Lane – Sutter Health – Co-chair**

So, let's do just that, David, as we go through this and kind of review the process flow as I've proposed it. Let's flag things, steps in the process that are problematic. That's probably a good place to start and steps in the process where there are policy issues. Let's just throw out the ideas. So, let's start with an overview of –

**Kensaku Kawamoto – University of Utah – Co-Chair**

I'm sorry, Clem has a hand up. Clem, if you want to quickly come in.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah. It's a complex process, but the problem is very simple. We don't get that stuff. Nobody gets it. The orders aren't delivered by any process on a routine basis, except in hospitals. So, they don't go to the patient. They don't go to the doctors in any easy way. And nor do the results, systemically. So, I think the problem is pretty clear.

**Steven Lane – Sutter Health – Co-chair**

Let's try to specify.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Okay. Again, I leave drugs out because that's pretty well handled, in terms of outpatient care anyway. But I think we don't get x-ray results. We don't get spirometry. We don't get EKG results. Nobody does. The patient doesn't get it, the doctors don't get it in a consistent fashion. And the order side of it is probably not quite as important to the patient and others, so I would start with results and then work back to orders as they tie together.

**Steven Lane – Sutter Health – Co-chair**

If I may, let me try to walk through the process, so we can at least see kind of what the universe is and people can identify if there are steps in the process that I missed. Is that acceptable?

**Kensaku Kawamoto – University of Utah – Co-Chair**

I think the pinpoint you have on the scope, I think we should probably pause there for discussion for scope.

**Steven Lane – Sutter Health – Co-chair**

Yeah. So, again, the way that I laid this out in my head was that you start with a certain clinical situation. And that clinical situation is going to, potentially, lead to the need to place an order. And sometimes, the clinical situation itself leads to a recommendation to a provider or a care team or a care manager to place an order. So, that seemed to me like kind of where it starts is even before there's a decision to place the order. Then, going on to the actual decision to place the order. And now, I think, Ken, your point is well taken. And you've raised this issue multipole times now, Clem. Do we want to talk about lab, rad, cardiopulmonary, those kinds of orders exclusively? Do we want to talk about meds, referrals? Do we want to lump all of them together or pick one area to focus in more specifically?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Well, I said it before, but the meds really doesn't need to be prescribing is ubiquitous. So, I don't know why we want to focus on that, at the present time, when there's stuff where nothing is happening.

**Kensaku Kawamoto – University of Utah – Co-Chair**

And I guess my suggestion, for the initial one, is we can always expand scope, but perhaps, we should start with a very well constrained and understood scope say laboratory orders and resulting. Not to say we wouldn't go beyond it, but just to start there. And then, figure out what the process is and how we identify problems and move forward. and then say, okay, well, what do we need, in terms of applying this methodology. Maybe another way to put it is, instead of taking this and three other meetings, we get down with the initial scope in this in one or two meetings, there's nothing wrong with it. It just means we have more time to work on applying the process to other items. Terry has his hand up and then, --

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

Sorry. This is Terry. I put my hand up, but I guess –

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yes, Terry, please.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

No, I think this makes perfect sense. I think you're going to find that the process involved in doing an order is more similar than different for each of these subtypes of orders. So, picking any one makes perfect sense. And then, I think we can circle back and see if there are special cases that weren't handled. If we run through the other orders and put them through our lab system. So, I think this makes sense. Just start with one.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

I agree.

**Steven Lane – Sutter Health – Co-chair**

David?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. I was just going to suggest maybe that, at the top of the form, you create a running bullet list of sort of problems that we've identified that need addressing, as we work our way through this. So, Clem has raised kind of Problem No. 1, which is incomplete closing the loop on delivery of results of an order generically. Some are better than others. But, in general, they're not all closed loop on delivery.

**Kensaku Kawamoto – University of Utah – Co-Chair**

I think that's a great idea.

**Steven Lane – Sutter Health – Co-chair**

Why don't we try to capture that, when we get down to that point in the process? Would that be reasonable?

**David McCalllie – Cerner – ISP Task Force Member**

I just don't want to lose track of them because I'm guessing we're going to run into a lot of stuff on the way. But sure. That's chairman's call. Just keep a running list of the things that we've surfaced. And then, at the end, we can go back and say which ones of these look like the most worthy of our attention.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah. I also think we shouldn't try to micro analyze the details of the pre process of the process because we'll never get done. And it's pretty clear, sometimes, someone decides to do it, and it gets entered. And then, what happens after that is what we're worried about, I think.

**Steven Lane – Sutter Health – Co-chair**

Let me just walk you through the rest of this, if I can. And, again, I broke it down into the decision to place the order, the selection of the order, and the role of clinical decision support, specification of order details, issues related to where the order is going to be performed and routed. Specification of who should get copies. Often orders are pended by a scribe or a staff member and routed to a provider for review and finalization. But then, the order is finally signed. There's often patient instructions that need to be prepared and routed. The order is routed. And, of course, it could be pushed from the provider to a performing agency. Or it could be set up to be pulled by the performing agency, once the patient had selected it and then, taken that way. There's a need for follow up alerts, if orders that have been placed are not scheduled.

Then, there's a key patient step here where the patient decides where they want to have the service performed. They either pick up the med or have their consultation or order their MRI scan. And here, we've got issues related to coverage and cost and convenience and language requirements, etc. Then, there's scheduling issues, patient way findings. There's very clear patient issues that come up along here where I think, again, we don't have standards. And maybe I'll just kind of pause there because I sort of highlighted some of what I thought were kind of the major milestones in the work flow and see, again, as we go through this, Clem or others, if you want to identify key steps in this where you think that, again, standards play a role or are lacking or are inadequately implemented as they relate to the steps, in this process.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Terry then, David.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

So, this is great. You've taken what sounds like a really simple process, I'm going to order a

test, and you've broken it down into the component parts. And how many have you gotten, 20 so far? This shows how complicated and complex these systems are. And so, one way we can also go through this is sort of a failure modes analysis. So, what are all of the ways that you could end up never seeing the results of a test? And sort of make sure we focused in on how the system can fail, so that we build in standards that allow us to monitor the system's performance.

**Steven Lane – Sutter Health – Co-chair**
Good point. David?

**David McCalllie – Cerner – ISP Task Force Member**
Yeah. I'll add, just as a test here to see if this is the way that you're thinking, I would add a problem to be solved associated with the first parts of this is the lack of any consistent standards around what an order is and what those parameters that describe the order are. So, with the exception of medications where we do have a consistent standard, the rest of orders are not mapped to existing nomenclatures, which makes interjection of decision support from outside parties very difficult. So, I would put that on the list as a –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Let me argue with that. Through ONC, there was a specification defined for laboratory, for ordering, and the ambulatory setting, which just didn't get pushed back. And it was actually part of their process as well as the **EDOS**, which is a way to keep a log of all of the master files of all of the different labs and what they offer and how they're offered.

**David McCalllie – Cerner – ISP Task Force Member**
Yeah, Clem, I'm talking about beyond lab. Lab is probably fairly close to being solved. But the vast majority of the rest of the order catalogue is not enumerated and certainly not accepted. There have been attempts, many, but none have been successful.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Okay.

**Steven Lane – Sutter Health – Co-chair**
What do you think about meds, David?

**David McCalllie – Cerner – ISP Task Force Member**
Well, in meds, you can map to RX Norm. No system uses RX Norm internally. So, it's always a mapping. But at least it's theoretically possible. But you can't do that with say image orders or –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Aren't we talking about the same order because I disagree with that, too.

**David McCalllie – Cerner – ISP Task Force Member**

That's the standard, Clem, for things we order.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
In radiology?

**David McCalllie – Cerner – ISP Task Force Member**
Sure.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
RadLeX and LOINC have 6,000 terms codes.

**David McCalllie – Cerner – ISP Task Force Member**
No vendor uses those.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Well, I don't know if that's true. I think Mayo does. But in any case, they're there. You're saying they don't exist.

**Steven Lane – Sutter Health – Co-chair**
What was the name of that standard, Clem?

**David McCalllie – Cerner – ISP Task Force Member**
They're not agreed upon as a standard, Clem. They're not widely –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Let's at least state there is some existence. It's not that nothing exists. That's what I think you said. So, there's RadLeX and LOINC, Radiology Society of North America.

**David McCalllie – Cerner – ISP Task Force Member**
But my point is those are not granular at the orderable level. And they're not widely supported as orderables in –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
They're pretty granular. They're pretty granular.

**David McCalllie – Cerner – ISP Task Force Member**
They're granular. They're too granular. They're not granular at the orderable level. There's a problem at 700 –

**[Crosstalk]**

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Let's take CPT. But just don't be so negative **[inaudible] [00:38:38]**.

**[Crosstalk]**

**Steven Lane – Sutter Health – Co-chair**

So, I think this is exactly what we want to get to, which is the notion that standards are either lacking or incompletely implemented or utilized in the industry. But I think you've clearly identified this area, this area of standards for ordering things as an area where there's a need. Is that fair?

**David McCalllie – Cerner – ISP Task Force Member**

Exactly, thank you. And then, the second high level point that maybe you have intended to include it under clinical decision support, but it's got increasing attention these days, which is prior authorization, in the ordering process. And I think a lot of people might think of that as different from clinical decision support because it's often times not a clinical decision. It's more governed by what the payers cover and what the payor doesn't cover and etc. So, you might want to add prior authorization in your steps.

**Steven Lane – Sutter Health – Co-chair**

Yeah, it's in here. I'm trying to see where it was. I think it goes here, right? The CDS for the selection of the order by the provider, right, that's where it goes.

**David McCalllie – Cerner – ISP Task Force Member**

But it requires additional data capture. So, I think of it as – if you mean by CDS broadly anything that interacts with a provider before the order is completed, yeah, it's a subset of that. But it's got enough different nuances to it that it might be worth calling out. And there's a lot of work involved with it.

**Kensaku Kawamoto – University of Utah – Co-Chair**

That is a good one, especially if there's folks who are already working on it. That is, obviously, a pain point, a big pain point, where it's like oh, my gosh, all of this paperwork and faxing and calling and all of that kind of stuff to do this.

**Steven Lane – Sutter Health – Co-chair**

Okay. I think moving on here, we talked about the order is placed, the order is signed, the order is routed. And then, the test is actually performed. So, the specimen is drawn, imaging procedures completed, the consult, etc. And then, there needs to be, again, an alerting process here, if the order is not completed that was placed. Then, the test is resulted. There's clearly issues here in resulting tests in mapping the components of the result to standard terminologies. I think there's a real opportunity there and a challenge with our standards. Often times, there's a need for reflex orders that can be triggered automatically, based on a result. Then, there's the issue of routing the results to the appropriate recipients rather than go through results and the metadata. And then, the results will be received and interpreted and flagged.

And then, often times, there's multiple steps where one provider or service is actually

resulting it, and then, another is then interpreting it. So, like you have an EKG, which needs to be routed to the cardiologist, the CBC that needs to be routed for manual review by a hematologist, etc. And then, eventually, the results are routed back to the provider who ordered them and any CC'd provider. There's often a preliminary result followed by a final result. So, sometimes, those would be routed independently. And then, those results do get received by the recipient's HIT system, parsed along with their metadata, stored and displayed. And here again, we're well aware of challenge related to how these metadata and data result components are filed, whether this seems to be kind of the point at which we struggle with issues of semantic interoperability and the meaning of the individual results.

And then, the results get presented to the ordering provider. They get reviewed. Then, they get some clinical decision support, when they review the results. Then, there should be an alerting process here, if the results are not reviewed by the ordering provider or their proxy. And they're interpreted. Again, there's another step where there might be reflex orders. And then, there's the whole issue of routing the results either to other providers, but most importantly, to the patient here. And Clem, you were getting at this. The challenges here related to consistency of results getting either to the ordering provider or to the patient, subsequently. Often times, there is interpretation from the ordering provider back to the patient that needs to be communicated either in an automated or a manual way.

And then, there are many ways that the results might be routed by a portal, a PHR, electronic messaging, letter, telephone, follow up visit, etc. Often, there's a need for the proxy to access the information. And then, the patient finally reviews the information. Here, again, there's a need for an alerting process. If the patient doesn't get their results, then, there's ongoing communication and then, follow up. So, this was sort of my attempt, over the last while, to try to define, from soup to nuts, the idea that an order needs to be placed. It needs to be performed. It needs to be resulted. It needs to be sent to the ordering provider, and then, communicated to the patient. So, I'll pause there and just see if we missed anything along the way or if anyone has any comments. David, once again, yours is the first hand up.

**David McCalllie – Cerner – ISP Task Force Member**

But you got up really early this morning. Well, I can't even – you went through so much stuff, I've lost track of what I was going to say. But I'll add one thing that often times, the signing process can be much more complex than simply signing it. There can be multiple signatures required. Medical students require co-signatures. Some antibiotics require sign off by stewards to approve the use of the antibiotics. So, there's just – you, of course, know that, but there's some complexity under the signature process. And then, on the ordering itself, rarely are orders dealt with as single orders. They're usually a part of an order set or a protocol that may have automatic staging. So, some of the orders may be placed for automatic recurrence.

They're not just single shot like this halfway looks to be mostly focused on. And then, I would just add the question, it's an interesting question, as to whether there's an expectation. I'd love to hear the group's discussion on it that results should be routed to the patient, as they occur or whether in more like the current approach is to kind of batch them up and route them as part of an encounter or summary. Is there belief that we should be routing these things, in real time, to the patients fresh from the lab? That would be an interesting twist to

me.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
That real time routing is a disaster in many settings because there's updates inside of labs. We actually had with Cerner it totally almost shut the system down because we were getting so many messages from the same darn test as it got updated at different phases. I'd be really careful with the real time.

**David McCalllie – Cerner – ISP Task Force Member**
Yeah, I would, too. But I was curious. It seemed like that was being proposed.

**Steven Lane – Sutter Health – Co-chair**
I don't think anything was being proposed. I was simply trying to tease this apart.

**David McCalllie – Cerner – ISP Task Force Member**
Okay. Yeah. I didn't mean it too strongly, Steven. Listed as an option.

**Steven Lane – Sutter Health – Co-chair**
So, we've got a number of hands up from folks who haven't been heard from. So, Victor Lee?

**Victor Lee – Clinical Architecture – ISP Task Force Member**
Yeah. Hi, everyone. Thanks. I really like this comprehensive soup to nuts list of all of these different things that happen, when you order something. I wonder – actually, can you guys hear me?

**Steven Lane – Sutter Health – Co-chair**
Yes.

**Victor Lee – Clinical Architecture – ISP Task Force Member**
Okay. I got an Adobe message. I'm wondering if – well, what I'm trying to do is put an interoperability lens on this. So, as I think about the ability to send, receive, make use of without special effort, I don't mean to minimize any of these bullet items, but I wonder how much we can kind of trim the focus or the scope of our work. For example, the ability to exchange information about whether a reflex test needs to be done or insurance coverage or routing. Some of the things that I've done in my work relate to can I even just send and receive and make use of the order and the order details and things like that. I know there's work being done on that. But there's still some gaps.

So, just some fundamental things that we've done with standards, I think, still have some potential remaining holes to be covered. It's a very comprehensive list. And I think it's great because it's made me think about a lot of things that I hadn't necessarily thought of, when I think about orders and interoperability. So, realm, I guess the question is how do we task this group and focus on solving the most important things related to interoperability of orders?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Here, here.

**Kensaku Kawamoto – University of Utah – Co-Chair**
And maybe just along those lines, that is exactly what this task force is meant to do. I really like this, let's start with a broad list or process and start narrowing down to what we think are the most important ones and, ideally, solvable ones. Jack, you have your hand up?

**Ming Jack Po – Google – ISP Task Force Member**
Hey, guys. Just for the sake of completeness, although I completely understand everyone's point that the scope is now too large, I think right now, we seem to be missing some things around what happens after the **[inaudible] [00:49:31]**. I think some folks already mentioned about cutting off. But one of the things that we hadn't mentioned, which we have dealt with quite a bit, was once you have the insured data, sometimes, you also have the claims data. And both sets of data, sometimes, are clearly coded with something, some type of internal standard already but nothing between the two of them. So, some way to map between the two would be super useful. Another thing that just Clem mentioned radiology and things like that, so RadLex seems to be used by a bunch of folks but in a very **[inaudible]** way.

And folks are adding a lot of extra codes making things very difficult. So, some of those ones are exactly what was mentioned earlier where **[inaudible]** and some clarity on how to deal with all of those other pieces and **[inaudible]** would be helpful, in terms of standards. In terms of **[inaudible]** getting test results, one way of getting them would also be useful is figuring out how long it takes them **[inaudible]**. On the patient side, to respond to get some patient information to you. There's a lot of sort of what happens after the physical visit. You have orders as well, but right now, you have very little visibility into it. But, to everyone's point, I think the scope of **[inaudible] [00:51:09]**. I think we can easily **[inaudible]** and getting that to flow through. And so, I think it probably should be super important.

**Kensaku Kawamoto – University of Utah – Co-Chair**
Thanks. I think your audio broke up a little bit, but I think we got most of the gist.

**Steven Lane – Sutter Health – Co-chair**
I'm glad you did, Ken, because I was having a really hard time hearing much of that. I apologize.

**Kensaku Kawamoto – University of Utah – Co-Chair**
I think the gist I heard was, and correct us if I'm wrong, one was claims data, in this and other use cases, is important in figuring out that's actually useable is important. Another was the orderables side and the role of things like order sense is important. Those were two that stuck out to me. I don't know if there were other main points.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
I think there were. I think that maybe he ought to write them out because the voices are hard to hear.

**Kensaku Kawamoto – University of Utah – Co-Chair**

If you wouldn't mind, if there were other points, Jack, if you wouldn't mind putting it into the public comment or present a chat. I see Terry is next.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

Well, just to hark back, I think this is a great exercise in parsing a very complex process. I think we're going to find that this is really a series of similar processes layered on top of one another. And I'm wondering if, after we go expand this list out as far as we can, if we go back and just take the simplest pathway from order to results that we can imagine, and look at that as our architype and see if the standards are in place to support that. Then, at each branch point in the order process, you're going to get subprocesses that are going to look very similar. And it's going to be query exchange for each time. It's either yes/no, you've got the order, you don't have it.

You got the result, you don't have it, you've got sufficient support. Continue this process to really get as granular as we can. But I would advocate that we circle back and then, pick the simplest use case to start with.

**Steven Lane – Sutter Health – Co-chair**

David?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah, two things. One is a friendly amendment to Victor Lee's comments a few minutes ago. I think one way to formulate what he was describing might be to say what APIs would be expected to be exposed around the order process that could be manipulated by systems that are plugged in from the outside apps or whatever. So, it's a notoriously complex subsystem inside of the EHR. Are there places where standards based APIs could be plugged in? Or is it just too complex and too idiosyncratic to even attempt that? I think there are some places where it does make sense. And so, I would list that as a problem to be solved as are there APIs that make sense, standards based APIs that make sense for this. And then, on the –

**Steven Lane – Sutter Health – Co-chair**

David, thank you.

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. On the complexity point, these systems that support this have been evolving for 30 years. And the complexity is real. It's not going to go away. Hospitals' orders' management is an insanely complex space. So, I agree we should try to abstract as much as possible, but there's a certain complexity here that's just the way the world is.

**Victor Lee – Clinical Architecture – ISP Task Force Member**

Yeah, David, thanks. This is Victor. I appreciate the API comment. I think that's a really good starting point. And I had trouble kind of creating a framework around how to raise that discussion. The only thing I'll say is, in addition to APIs, there are also document based

exchanges like an order set that we would also want to think about. But I think that's a good way to stimulate the conversation.

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. And order set standards would be something to add to the list. I said order catalog earlier, but you could extrapolate out a layer and say order set standards as well. And there are some working dominant approaches in the industry today, let's put it that way. Maybe not fully standardized.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Clem, you have your hand up?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah. I'm just frustrated. I don't think there's any possibility we can solve the problem the way it's been described in the next 10 years. This has been work being done at a standards organization. I think they're the ones that should do that detailed work. I think we should be dealing with some simple, big things like, if the regulations aren't pushing at some of this stuff at all, maybe I'm the lone man here. And in terms of hospital complexity, it's not the only place stuff is ordered, David. There's fairly simple processes for labs and the outpatient and also, APIs. Of course, it's fire, and it's going to be great. But all of the lab stuff is now done with V2. So, if we get rid of that, we're not going to make much progress, in the short term.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Maybe one sort of process issue. So, there are certain things that we may be able to solve within this task force by just discussing it over one or two calls where we say hey, there's these great standards. Maybe the only thing we need to do is to say there should be someone with regulatory or other pushes or bully pulpit to say why isn't everybody using the standard. It seems to work well, let's use it. That's one extreme and easy thing we can solve. And then, the other extreme end is here's a problem, but it's really thorny. And it's really just hard. And what do we do about those? We're not going to solve it in the next three calls or in a year. But what we could do is say this is the path we think needs to be taken and, perhaps, Argonaut or ONC via task orders or whatnot can work on it. So, I think we don't have to necessarily solve an issue.

What would be useful for this task force to do would be to lay out a feasible path to solving an issue. And if we can see a feasible path, I would agree that we should probably focus on other things. If we can't think of a feasible way something will be solved in five years, maybe it's just, even if it's a big problem, we just sort of step away from it or at least just put it into parking lot.

**[Crosstalk]**

**Unknown:**

So, I'm trying to raise my hand, and I can't. If we're going to recommend something as a

priority for other organizations to address such as Argonaut, then, we should provide clarity as to the path that we propose that ONC takes with that organization to address.

**Steven Lane – Sutter Health – Co-chair**
Yeah.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**
So, this is Cynthia Fisher. I can't get in to raise my hand. So, if I may, I share Clem's concerns about timing to get this accomplished, get our goals accomplished. And I think, if we step into the practicality of use for the patient to actually get their labs, get their radiology results. Often times, they're referred to a specialist, and they have nothing given to them that they can go to that specialist. And the specialist can't pull up a film, or they have a CD, and they can't pull it up. If the patient is given the information, and their caregiver is given the information, as a condition of payment, so if we use the full force of government, if we use CMS right to say you're providing care. In order to diagnosis, you did labs. You did an x-ray. That result needs to go to the patient.

Once the patient has confirmed receipt, then, you, institution, provider, then, you get paid. But only once the patient has been provided the information, so they can see the specialist with the information on their own mobile device or on their own paper print out. Then, they have the tools to get the best of care because what we are not realizing is not only is this cost of care of the back and forth steps affecting the patient's health, but it's affecting their wallet. And when they have to take time off of work, it's affecting their life. Maybe $1,000.00 a day of cost for them to have to leave work, get access to information, and try to follow up. So, we really need conditions that the A2 test has the lever and the hammer to use condition of participation and condition of payment. And it's like we go to a restaurant, and we get the results, we get the food.

And once we got dessert, we got everything we asked for, we pay for it. The same thing should be with our information. And I'll go into price transparency as well. But if we're just talking information today, we have levers we can do to get it done.

**Kensaku Kawamoto – University of Utah – Co-Chair**
That's a great point. Cynthia. I think assuming we can use that lever, in terms of payment, that applies to many things. So, for example, the length standard is really well flushed out for lab results. But may labs, especially smaller ones, may not actually link code their results, so it's just really unusable in an interoperable setting. A thought, for example, there as well is actually making the data useful by providing a reasonable link code to it that can be certified by the College of American Physicians or whatnot is a condition for payment for having performed the lab. You can imagine that that would make compliance nearly 100 percent immediately. So, it's a good point. The scope of this committee is within one arm of HHS with ONC. But there are, within HHS, groups like CMS that have those levers. So, I think it's a good discussion to have, if we can.

**[Crosstalk]**

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**
My initial research of those levers of condition of payment is that HHS can use that lever, to my understanding, if the health of the patient could be impacted by the patient not having access to their information. And I think that's –

**Ming Jack Po – Google – ISP Task Force Member**
This is Jack. I totally agree with the previous point, Clem's point.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**
I can't hear whoever is speaking.

**Steven Lane – Sutter Health – Co-chair**
Jack, can you do anything with your audio differently, so that we can hear you better?

**Ming Jack Po – Google – ISP Task Force Member**
Is this better now?

**Steven Lane – Sutter Health – Co-chair**
Somewhat.

**Ming Jack Po – Google – ISP Task Force Member**
I was just going to say, I totally agree with the previous point and Clem's point. I think we can spend an eternity talking about **[inaudible] [01:03:35]**. But one of the most important things that we could do is suggest where regulatory pressure that happens. I share, I think, with at least, for example, HHS requires all labs to be committed to them in a standardized way, industry will figure out how to share those codes in a reasonable way. But the hard part right now doesn't seem to be the library science part of it. But the hard part seems to be getting folks to actually do it for business reasons.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Here, here.

**Steven Lane – Sutter Health – Co-chair**
We've heard comments, previously, about the challenge of business drivers. This was a point that David made at our last meeting. You can't legislate business drivers. So, I think it is important, as we think about this, that we think about kind of as I'm trying to break this down as sort of proposed remedies that we may want to advocate for and standards that may be needed or that need to be implemented differently.

**Ming Jack Po – Google – ISP Task Force Member**
I'm not sure that's completely true because I think, in radiology, or even in claims data, basically, those standards were legislated into it. So, if we can somehow advocate for use cases that exactly what was just mentioned, on the patients or some other types of use case that HHS is willing to say I want all of your data to be sent, just like some registries. If you

don't send it, you won't get paid, it will, basically, force the standard to happen.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

This is Cynthia. I 100 percent agree. A standard will happen. And it will be in human readable form. I think if we could emphasize that it would be in human readable and machine analytical form, as a condition of payment, it will happen. And if we create the open ATIs, the apps will evolve to provide the best products to patients.

**Kensaku Kawamoto – University of Utah – Co-Chair**

David, you have your hand up?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. I was just saying I think there's many ways where data does flow to patients today. So, if we were going to advocate for something new and different, we have to be pretty precise about exactly what the circumstances are in routing every order to the patient would, as Clem pointed out earlier, would be a disaster, I think. And if you had to have a physician sign off on it before payment occurs, it will bring the healthcare system to a screeching halt, since most patients are probably not in a position to do that. So, I think it's a great goal. But if we push it, let's get specific about what are the circumstances and the means by which these side effects of orders would, in fact, be delivered to patients because there's lots of ways it happens today already. If we're going to try to propose changes and rules, we need to do it in the context of what's already required. We can do that through the portals and other ways.

**Steven Lane – Sutter Health – Co-chair**

Can you scroll down a little bit, Lauren, just below this section? I started to try to collect comments about what standards are needed. And I'd be interested, if there are additional inputs here. These were the ones that I've heard people mention. There was also the questions about the APIs, which I'll sort of move down here, though I'm not sure that the question was standards or not. But, again, since our focus, our task is to identify existing standards and implementation specs that support the use and exchange of health information to meet the priorities, what else can we say about standards and the standards that come into play? There are clearly a lot of standards related to the different categories of orders. And we decided to start out our focus on labs, I think. But what can we say about lab standards?

I did hear a comment earlier about a link, and Ken and I had a chance to discuss LOINC in a little bit more detail earlier this week that even though LOINC is a standard that it's not sufficiently granular or that the labs are not actually assigning it. Is there a need for our task force to encourage the further development of LOINC or a differing implementation beyond what I think I heard, which was the suggestion to require the lab to provide optimal LOINC mapping with all of their results?

**Kensaku Kawamoto – University of Utah – Co-Chair**

There's Clem and then David with hands up.

**Unknown:**

I agree with what you're saying there. But the 21st Century Cure already has statements in there around deference to the existing standards authority. So, I think amplifying that will be useful.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

If I can comment on it, I think not too granular is not right. I think if there's any criticism that they are too granular, at times. So, I don't think there's any problem. I think we also have to distinguish the order codes and result codes. So, the result codes are really pretty darn well covered. The order codes are a challenge because they're almost infinite in variation. And there is work being done now about – a couple of the big labs are trying to put in their order panels because you've got a set of all sets is a very large number of items. So, the common sets are in there. There's probably maybe 2,000 sets of panels. But that's going to be tough because the labs are getting them done even on the fly.

So, we should distinguish those two cases. And then, finally, I think we shouldn't tie immutably orders with result success. You can send results out without having processed the orders by computer or any other special process. And it's a little easier with the resulting side than the order side. At least for labs. Radiology, I think it's equal.

**Kensaku Kawamoto – University of Utah – Co-Chair**

David?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. I would agree on Clem's comment about the granularity of LOINC. There's not, generally, a problem with inadequate granularity. If anything, there's too much granularity. And what's actually missing from LOINC, I think, unless it's been fixed in the last six or eight months, is an oncology that allows for easy group of tests that are, essentially, the same tests clinically, even though they may have been performed with different analytic methods granularly.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah, we're working on something called equivalent classes, which is just that.

**David McCalllie – Cerner – ISP Task Force Member**

Okay. Add that to your list.

**Kensaku Kawamoto – University of Utah – Co-Chair**

We were discussing like an end user perspective. You get results from all of these different labs from different institutions, let's say, when you combine them all together, even within your institution. Even to know what's safe to trend together, that's exactly what's needed. So, Clem, that's excellent. Is that equivalency class work well underway? That's really exciting.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

It is well underway. There's a challenge though, in all of these things, is who calls it that they're safe. You talk to a pathologist, and they say no, man, that's 1 percent different. You can't call it the same. So, we're going to make some judgments and let the implementers decide how they want to use it.

**Kensaku Kawamoto – University of Utah – Co-Chair**

But it does seem like a natural place to do something national, right, because every single institution is going to have to do that. And the small shops are simply going to have no effort available. And it's just going to be not –

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Well, there's hope for the smaller shops because there's a process in the laboratory instrument industry. They've defined a specification for setting out what their internal codes mean, in terms of LOINC. So, at least the small labs will be able to much more easily decide how to set up their LOINC codes, if that continues to grow.

**Kensaku Kawamoto – University of Utah – Co-Chair**

David?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. Just a second point on your standards needed. I think, certainly, Ken is aware of CDS hooks and the other CDS standards, which are, I think, off to a good start but are certainly far from complete. So, I don't think we should focus just on standards around data but also interaction standards like CDS hooks. And just make sure we don't forget that.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yeah. I think like a common sort of place where you would for labs where it's relevant is whether it's the patient or the provider, when you're looking at the result, to be able to interpret it meaningfully to say here's, let's say, a baby's bilirubin level. But what does it actually mean, and what should I do? And those are natural places where you don't – the typical approach is simply, based on the reference range of the population, this is really high or high or low or whatnot. But it seems like that's a relatively decent need. That's been a need in our health system. And we haven't found a good way to be able to do that.

**David McCalllie – Cerner – ISP Task Force Member**

Let me just jump in and react to that. I think that's a good point. But it seems like, increasingly, the interpretations are complex and require interpreting many results together. So, take a cholesterol panel. There's not sufficient information in any single one of those tests to tell you what your risk factor is. You need to look at the whole panel. So, it's not a per result issue. It's really groups of things. And that's where apps come into play, I think.

**Kensaku Kawamoto – University of Utah – Co-Chair**

I think that's exactly right. Yes. I think there's potential ways to do it. It's just, for example, then, let's say, just like an info button might be available near a lab result, you might have a smart app available, so that you can launch a smart app to interpret that result, that kind of

thing.

**David McCalllie – Cerner – ISP Task Force Member**
Yeah. And patient facing as well because, obviously, they probably have more questions than the clinicians who get used to it.

**Kensaku Kawamoto – University of Utah – Co-Chair**
Yeah.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Yeah. I was just going to say, we should probably break for public comment. And then, we can circle back, of course, if there's time, if that's okay. Operator, can you please open public lines for comments?

**Operator:**
If you would like to make a public comment, please press Star 1 on your telephone keypad. A confirmation tone will indicate your line is in the question cue. You may press Star 2 if you would like to remove your comment from the cue. For participants using speaker equipment, it may be necessary to pick up your handset before using the star keys.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Thank you. And I'll just do a quick just to go back to the roster to see if anyone else has joined while we're waiting Arien Malec? Les Lenert? Jack Po? Raj Ratwani? Ram Sriram? Sasha TerMaat? Scott Weingarten? Cheryl Turney? Valerie Grey?

**Ming Jack Po – Google – ISP Task Force Member**
Jack Po.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Yeah. I think I got Jack. And then, I thought I saw Valerie, but I'll confirm. Okay. Operator, do we have any comments in the cue, at this time?

**Operator:**
There are no comments in the cue, at this time.

**Lauren Richie – Office of the National Coordinator for Health Information Technology - Designated Federal Officer**
Okay. Great. Ken, I will turn it back over to you.

**Kensaku Kawamoto – University of Utah – Co-Chair**
Great.

**Steven Lane – Sutter Health – Co-chair**

Ken, I would just suggest, at this point, that we start thinking about how we're going to take the input that we've received and start to – what's the next step going to be? We're starting fairly general. We've captured some proposed remedies. We've captured some standards that are needed. What is the next step? How do we dig deeper into these topics and inform ourselves about existing standards, existing implementation guides, so that we can drive towards our task, which is to identify the standards and implementation specs that support this use or that are needed to meet them?

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yeah. My suggestion would be the next step for this group is to enumerate the programs maybe with examples. So, generically, say preauthorization is a problem. Example, when I need to order this kind of lab test, I have to call between visits and have to have the patient come back because I can't get an answer as to whether I can order this test for the patient. Inconvenient for the patient, increases cost and **[inaudible] [01:17:02]** etc. And then, the need is a way to be able to automatically be able to do that through an electronic interface. And then, if folks are aware of the particular standards to put things in. I think that sort of problem based notion and potential solution sort of enumeration I think would be useful.

So, if it's the patients aren't getting their results, maybe like in our health system, every single result becomes successful and goes to the patient after a few day waiting period, so the provider can provide comments on it. But I assume that's not the case in every health system, right. So, maybe enumerating that and what the issue is and a potential solution. Tie it to regulatory requirement for payment. I think maybe we identify those and then determine which of those we want to hone in on as a group. But I think some of it is going to be homework where we can take some of these comments, and I think the decision is how much do we do between these meetings or how much of it do we do at the next meeting. I think that's sort of the question.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

I think we should decide what we can actually practically do versus what should be done in the intense meetings assisting developers and standards groups. I think we're getting distracted.

**David McCalllie – Cerner – ISP Task Force Member**

Clem, we're trying to prioritize. We're not going to solve any problems. We're going to pull out the ones that we think should be solved.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah. But if we prioritize 1,000 things, we're going to get nowhere.

**David McCalllie – Cerner – ISP Task Force Member**

Well, priorities is a list, and you don't go down 1,000. You've got a 1, 2, and 3.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

All right. I'll go for that.

**Kensaku Kawamoto – University of Utah – Co-Chair**

So, I think we have a few minutes now. Actually, we have a full 10 minutes right now. But I think that's the discussion. Perhaps we can get started on a notion of what do we think are top three priorities. I will raise one I think very reachable solution would be around equivalency panels. I think that's very doable. There's effort going on, and it could be very helpful. David, do you have your hand up?

**David McCalllie – Cerner – ISP Task Force Member**

Yeah. I was just going to say, I think an important priority should be the finishing the ability or completing the ability that we started to work on to interpose decision support into the ordering conversation, broadly speaking decision support, which would include prior authorization, which would require us to agree on the API's hooks necessary to enable the interjection of decision support and to agree on the order catalog naming convention, so that the decision support can recognize when it needs to get engaged or not. I think that's broad work underway, but I think it's high priority work because it affects quality, safety, and cost.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Yeah.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

I don't have a hand raising machine right now, but I was going to say we still have to get the result back to providers and structured in real form. And I don't think we have to get everything else out to do that. And I don't think we're going to get anywhere, if those results don't get back to their systems. So, if you've got Hospitals A, and you're trying to say whether they move, they need a vaccine of a given kind, they probably won't know because it's just one hospital. You've got to get the data flowing, and it will be understandable.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Here, you're going past lab results. You're talking about other order results.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah, I'm sorry. I didn't mean to – well, I think the prime directive is to get the results flowing to the patient and to the providers. And it doesn't have to solve every operational problem to do that. It's really going to –

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

Clem, this is Cynthia. I totally agree. And I know I'll say it again, but I think, if we, as a committee, come forward with the condition of payment as the hold back by CMS and HHS, then, we can insist that the patient get their results as part of their care, at no extra cost. It would be provided to them because that is the service that's being provided. And the results go to the patient. And that we allow for open APIs and that the patients get it as the condition of payment. Then, we can get it done. And I do believe that the lab – the standards

will happen, as a result of that request.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
I agree with you.

**David McCalllie – Cerner – ISP Task Force Member**
That already happens today.

**Kensaku Kawamoto – University of Utah – Co-Chair**
I thought so. Patients have rights to their data, right. And if you make a records request.

**David McCalllie – Cerner – ISP Task Force Member**
And it's a requirement for EHRs to expose those APIs and make available access to those without any barriers, which the major vendors are doing already. It doesn't go into full effect until 2019. But most sites are already doing it. I think there may be some room for improvement, but the view download transmit capabilities have been there from the beginning of meaningful use. They're woefully underutilized. The APIs are helping a little bit.

**Kensaku Kawamoto – University of Utah – Co-Chair**
I think it would be good to get into examples like what –

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**
People should be able to get it with Apple's new demonstrated way and where the direction is heading, we're going to move beyond the portal world that is so inconvenient and locked down.

**David McCalllie – Cerner – ISP Task Force Member**
That's where the APIs come in. And that's reality today. Being rolled out today. There are definitely needs to expand the scope of those APIs, and that work is underway, I think. But I'm just trying to say that we're maybe not as bad as you think. I think we're headed in a good direction there.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Well, providers in private practice hardly ever get lab results flowing to them from the hospital, unless they are owned by the hospital.

**David McCalllie – Cerner – ISP Task Force Member**
Well, I think, Clem, then, the decision there is which results should be automatically pushed and which results should be query on need. And solving the query side problem, TEFCA-ish, if you would, is a different space. And I think maybe providers would say just make it easy for me to go get them, if I need them. But there are some providers who clearly need to be – it needs to be pushed to. So, maybe I think some work is –

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

I think our role would be best served if we looked for it to be automatically pushed to the patient. So, you get an MRI, and you can't get the radiology results, until the next day, unless you go back in person to some of these places. And that's not how we work. And if it's automatically pushed and available, then, that person can go see the specialist with the actual results.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

And what's missing is there's nothing in the registration screen for the patient to say well, I want it pushed. It would be pretty easy, if that were dispersed in.

**David McCalllie – Cerner – ISP Task Force Member**

Well, and almost no lab will push it over email because of the concerns about the insecurity of email. But patients don't have direct addresses. So, a lot of them will fax it to you, which is horrible.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

But if a patient wants it by email, why can't they get it by email? If they say this is how I want it, and I don't care about privacy, I want the information, so I can use it and not have to take a half day off of work and go get it.

**Kensaku Kawamoto – University of Utah – Co-Chair**

It would violate HIPAA, wouldn't it?

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

No.

**David McCalllie – Cerner – ISP Task Force Member**

I think many labs just will refuse to do that as a policy because they don't want to have to make that decision on a case by case basis. I think we could ask for recommendation to clarify policy, so that labs understand that the patient says it's okay, it's okay.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**

And HHS separately is asking for HIPAA reform to be where it's being a burden and where blockage is being used. And so, as part of this, we can be practical. Pardon?

**David McCalllie – Cerner – ISP Task Force Member**

I was going to say I think HIPAA is the one that gives you the right to have that data, so be careful about changing HIPAA too much.

**[Crosstalk]**

**Ming Jack Po – Google – ISP Task Force Member**

You're clearly generating this, and maybe we should think more about it. I think there are lots of reasons why it couldn't happen. But I think this is why it's worth discussing.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

Yeah. I think, if they made it clear, there was policy, if the patient signed off and said send it in email, they would be allowed to, and that was policy, then, it would solve the problem of the hesitation in the lab.

**David McCalllie – Cerner – ISP Task Force Member**

It would help.

**Terrence O'Malley – Massachusetts General Hospital – ISP Task Force Member**

I'll also add that I think this conversation, at least for me, really highlights the need. And I think David brought this up earlier, the need to have very clear and articulated use cases beyond simply content areas or specific technologies or really understanding that problem we're trying to solve because I think we're dancing around that a little bit. And I worry a little bit about prioritizing technologies versus prioritizing specific use cases because this is a very nuanced area, and we need that, in order to determine the technologies that we need to solve those problems.

**Clement McDonald – National Library of Medicine – ISP Task Force Member**

I disagree, but that's okay.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Well, we're a few minutes to – this is a really great conversation. I think the key is how to take all of these ideas and to put it into a form for appropriate action. Steven, any thoughts on how to –

**Steven Lane – Sutter Health – Co-chair**

Yeah, I was just thinking. We started to use the Google Docs both to collect and to share information. I think that you were mentioning the potential benefit of inviting people to identify the problems that exist. And then, to link those to solutions, to potential changes, to standards or their implementation. And I wonder if we could develop a separate document like a table that kind of breaks this down and then, invite people to add to it to identify the problems that they're seeing and what they know about standards. Kind of taking the comments that we had collected already, at the bottom of this document, and put it out in an editable format, so that, as homework between now and the next meeting, everybody can log in and add to that as needed. And then, we can try to bring that all together and discuss it next time as a group. Does that seem like a reasonable approach?

**David McCalllie – Cerner – ISP Task Force Member**

Say it again, you want us to send it to you? Or are you going to set up a shared document? I didn't follow that.

**Steven Lane – Sutter Health – Co-chair**

I was proposing a shared document, but I'm curious if people feel like they will do that, and it will be adequate?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Aren't we having a face to face meeting next week?

**Steven Lane – Sutter Health – Co-chair**
We have a HITAC meeting next week.

**David McCalllie – Cerner – ISP Task Force Member**
Some of you are.

**Cynthia Fisher – WaterRev, LLC – ISP Task Force Member**
Can we schedule a time to get together perhaps after HITAC or the evening before and have face to face?

**David McCalllie – Cerner – ISP Task Force Member**
I won't be able to be there, but you could go ahead.

**Kensaku Kawamoto – University of Utah – Co-Chair**
I won't be able to do after. I'm flying right out.

**Steven Lane – Sutter Health – Co-chair**
And remember, a lot of the members of the task force are not on the HITAC. So, I think that's a lot to ask.

**Kensaku Kawamoto – University of Utah – Co-Chair**
That's true.

**Steven Lane – Sutter Health – Co-chair**
We need to close. We're at time. We will put our heads together as co-chairs with our support staff and figure out whether we're going to try to do this as an editable doc or ask you all to send – we'll send you a specific assignment. But there will be homework to consider these topics and to add to them. And then, we will bring that feedback together next time. And we may even invite some subject matter experts to help us in the whole area of the standards. I'm sorry, we're a minute over. Any last words?

**Clement McDonald – National Library of Medicine – ISP Task Force Member**
Let's just take care of the problem that results aren't getting sent to the doctors and patients. It's a simple one liner.

**Steven Lane – Sutter Health – Co-chair**
We've got it, Clem, thank you.

**Kensaku Kawamoto – University of Utah – Co-Chair**

Thanks everyone. See a number of folks next week.

**[Event Concluded]**

**[End of Audio]**

**Duration: 91 minutes**