

## **NATIONAL QUALITY FORUM**

**Moderator: Ashlie Wilbon**  
**June 9, 2011**  
**2:00 pm CT**

Operator: Welcome to the conference. Please note today's call is being recorded. At this time I would like to turn the call to Ashlie Wilbon. Please go ahead.

Ashlie Wilbon: Good afternoon everyone. Thanks for joining us. We - this is the meeting - follow-up conference call for the Cardiovascular/Diabetes Resource Use Technical Advisory Panel, and we'll be discussing and evaluating the remaining resource use measures that we were not able to get to at the in-person meeting.

So I believe we also have some developers on the phone. We're going to do a quick roll call for the TAP members. I know everyone couldn't join us today, but we're going to do our best to get through what we can today. So Jephtha, I know you're there. (Jamie), are you there? I don't think that she is - Maryann Clark?

Female: ((inaudible)) here?

Ashlie Wilbon: Okay. Michael O'Toole?

Dr. Michael O'Toole: Yes.

Ashlie Wilbon: Okay. Hi, Michael.

Dr. Michael O'Toole: Hi.

Ashlie Wilbon: Katherine Reeder is there. (Brenda Marie Parker)? I don't think she could make it. (Bill), I know couldn't make it. (Tom Marwick) and Dr. Palestrant? David Palestrant?

Dr. David Palestrant: Yes.

Ashlie Wilbon: Okay. Hi there. So thanks, everyone who could make it. We did the send the TAP a brief memo with a few pointers on there about how we could try to expedite as much as possible the review of the remaining measures that we have, given that we were able to find two follow-up conference call times to get through about six measures.

So our objectives for today, for those of you who can see the webinar screen, is to really focus on the scientific acceptability today for the measures that we'll be covering. And we have forwarded a memo as well this afternoon with links in there for you guys, for the TAP to evaluate the criteria for the other overall criteria for usability and feasibility as well as importance, the thinking being that for importance, that most of the measures, given the scope and topic of the project, are going to be, you know - none of the developers have had an issue meeting that criteria, and really the bulk of the discussion is generally on the scientific acceptability section.

And what we found during the meeting is that, within a particular group of measures from the same developer, that the usability and feasibility criteria can generally be rated in a block voting type of way, given that there aren't any measure specific issues that need to be discussed. So we'll be to the best of our ability trying to stick to a 35-minute-per-measure time frame, and with the lead discussant really focusing on pulling out those things within the scientific acceptability that are different from or call attention to those things that aren't really those general developer issues that

were identified at the meeting, and identify those things that really require TAP input and discussion.

So is that clear to everyone? I know we have two - three lead discussants today. I just wanted to pause for questions there before we move forward and I kind of hand it over to Jephtha and the lead discussants.

Okay, that said, I just want to do a quick check. I know we have Chad Heim from NCQA on the phone. I'm sorry, Health Partners, on the phone. We have Mohua Choudhury, sorry, from NCQA. We have Robin Wagner from ABMS and I believe a couple of other people also from ABMS, and then from Ingenix, we have Cheri Zielinski and Tom Lynn, so there will be some developer representation on the phone if you have questions.

And I will hand it over to Dr. Palestrant, if you want to go ahead and get started, or Jephtha, if you want to start out with the introduction, we can do that. I'm going to go ahead and bring up the side-by-side table that we used during the meeting with the criteria and submission items to help guide your discussion along the way.

Yes, actually Sally just reminded me that we were going to give the developer an opportunity to do a brief introduction of the measure before the TAP began discussion. So that said, why don't we have NCQA start out with a brief introduction of the measure, if you will, Mohua?

Mohua Choudhury: Hi, everyone. Thanks again for convening. We really do appreciate it. So this measure is similar to the diabetes one that we discussed a couple of weeks ago. It's looking at cardiovascular conditions. Specifically it's looking at members who are identified with significant cardiovascular disease either by event or diagnosis, event being either acute myocardial infarctions, coronary artery bypass graft, or percutaneous coronary interventions, regardless of setting, or by diagnosis of ischemic vascular disease in an outpatient or acute inpatient setting. In

short, I mean, it follows pretty much the same in terms of risk adjustment, exclusions, and everything that we discussed before, so it's pretty straightforward.

Ashlie Wilbon: Thanks, Mohua. Dr. Palestrant. Do you want...

Dr. David Palestrant: Okay, so I'll try and set the standard for brevity and go through this pretty quickly.

Let's see. That's sort of the new format. So in the terms of the importance criteria, I'm not sure - the title says it all. It's the Relative Resource Use for People with Cardiovascular Conditions. There's, I think, if you look through the submission, and of course we all know cardiovascular disease is very important and costly. And so just in terms of a measure of importance, I don't think the topic is any issue with it in terms of its importance.

I do have, however, just in terms of the criteria, some concern about the - how broad the criteria is.

Basically the inclusion is - the inclusion is anybody with - who has had a CABG, a PCI, or been a - seems like a procedure - this is all on page 11, and the person from NCQA just discussed it, but it's basically, anybody who's had an acute MI, a CABG or PCI within the last year gets included into this category.

And so it's a fairly broad category, and one that's overlapped with some of the other areas that have been addressed in the past within this committee, where they were just more specific, to say, for example, acute MI, or more of an acute event. So this is a very broad category, and being cardiovascular disease, it includes some things which in its groupings including stroke, carotid arterectomy, carotid studies, but then excludes other things that would also be considered cardiovascular as well. So there is some issues I have just with this grouping. And that becomes more important sort of with usefulness, I think, down the road.

So in terms of, you know - you have to draw a line somewhere and understand that on the other hand, this is a very broad category for a - for a measure. I'm not sure if anybody else has any feelings in that regard.

Katherine Reeder: I agree. (Kay) Reeder.

Jeptha Curtis: Yes, Jeptha Curtis. I agree, this is sort of an odd line that they drew with why PCI and CABG and why not other forms or codes associated with chronic ischemic heart disease. But you know, they had to make a decision.

Dr. David Palestrant: Right. And you know, just considering down the road, to use this, if someone's going to get this measure, and they're going to say, well, "It's all this category," and the person who is being rated or the institution or whoever it is, may not know even to - where to begin because of how broad this category is, you know? Do they have problems with my stints, you know with the patients who got angiography too costly or the patients who got the CABG too costly? You understand, so it does affect, at least from my perspective, how useful this measure would be in the long run.

Dr. Michael O'Toole: This is Mike O'Toole, and again I apologize. I've been late in the game with this, and I'm just trying to get caught up. So when it comes to carotid disease, what is included in this category?

Dr. David Palestrant: Well the cost of carotid disease would be included in the category.

Dr. Michael O'Toole: Okay. And so...

Dr. David Palestrant: And the carotid - I think of carotid endarterectomy, and the cost of carotid imaging.

So one can make an argument that every patient who has coronary artery disease needs to have the carotid screened. Why would that be included or not included?

So it does sort of capture a lot of different costs associated with this, and that's the other issue, is there's going to be - there can be - what are those costs that are incorporated and what are not incorporated? And when you have a very broad category like this, those things become very important.

Dr. Michael O'Toole: Let me clarify there, because I had a slightly different interpretation of the - of the application. I think you certainly went into it in more depth than I, but I - my impression was that with regards to resource use, or standardized costs, that they were taking the "all costs" approach. They were, you know, not trying to apply any specific criteria for inclusion in the calculation of costs, and that when they were describing the individual procedures such as carotid revascularization, that was more for descriptive purposes, as to, you know, what could be driving this overall use. It wouldn't necessarily - it wasn't specific. And maybe the measure developer could comment on that.

Mohua Choudhury: So just to rephrase your question and make sure I have it correct, you're asking sort of what our rationale was in terms of which service categories and conditions we were going to select for this measure?

Dr. David Palestrant: I think the question was more in regards to which costs were selected for the measure.

Jeptha Curtis: And as I recall from the diabetes measure, it was pretty much all costs across all conditions. Not - there's no trying to link a particular cost to a condition versus another cost not being associated with that condition.

Mohua Choudhury: Right, yes, and it would be the same thing for this measure.

Dr. Michael O'Toole: I guess - and this is Mike O'Toole - I guess what I was getting at - and again, I just may not be up to speed enough with the information - but one of the clinical integration programs that we're doing, when we're identifying cardiovascular disease or including everyone who had a Lifeline screening and had some plaque in their carotid.

And they get grouped just like the people who have an MI, bypass surgery, someone had a ultrafast CT score of 30, they have coronary artery disease, and are in this same group of cardiovascular disease, and are compared equally with the people who, again, have had PCIs, bypass surgery, etcetera. And it turns out that those early detection sort of folks can oftentimes make up a preponderance of the patients that are being grouped into cardiovascular disease.

Jeptha Curtis: Then your question is more why not include CAD equivalents.

Dr. Michael O'Toole: Right. Or are they included - so are they - are they included or not?

Mohua Choudhury: Well, I was actually reviewing - as you might realize, this REA measure is also based on the (Hetus) quality measure, cholesterol management for patients with cardiovascular conditions. So I was reviewing what is included in the code set, in terms of the diagnoses, and I was comparing coronary artery disease to IVD just to see what the difference was.

And in ischemic vascular disease, in the code sets that we include, we tend to cover acute and subacute forms of IVD, angina pectoris, coronary atherosclerosis, chronic total occlusion of coronary artery, other specified forms of chronic ischemic heart disease, chronic ischemic heart disease unspecified, cardiovascular disease unspecified, occlusion of stenosis of precerebral arteries, occlusion of cerebral arteries, and atherosclerosis of renal artery, of native arteries of the

extremities, and chronic total occlusion of artery of the extremities, as well as arterial embolism and thrombosis and atheroembolism.

So in comparison to coronary artery disease, it actually includes similar code sets, and I would say that the CAD-related codes also kind of diverged into family history of chronic disease, disabling disorders of lipid metabolism, etcetera, etcetera. So basically when we were trying to look and see which conditions to include in this, we did try to account for something that's more comprehensive than what coronary artery disease is defined as by the code sets.

Dr. Michael O'Toole: Yes. And I can tell you that that presents some problems, at least locally for us, because to use the (Hetus) definitions, you have to include ischemic vascular disease, and that means that everyone with a slightly abnormal carotid ultrasound gets grouped, but the title is almost always - everyone's thinking that they're all CAD patients, and at least locally, a huge chunk of ours, you know, are not the traditional CAD patients. And it's kind of like when you look down at the (Hetus) definition, you're like, "Oh, yes. We have to include..."

Now, how we treat them, as far as lipid control, etcetera, you know, we kind of group them all together, and, you know, and they're not quite as aggressive as the people who have secondary coronary disease prevention, but everyone thinks of it as CAD, but you know, as people are getting screened and as Lifeline is going around the country screening everyone, what you think of as CAD patients ends up being a lot of ischemic vascular disease and not CAD.

Mohua Choudhury: Okay. I mean, as we continue to refine these measures, we can certainly look into including more code sets that are CAD-specific, or just basically looking at the non-traditional patients that you're mentioning.

Dr. David Palestrant: Right. Well I think the other reason for sort of being very clear on what's included and what's not included is, you know, part of this should be based on another measure, which I



think you mentioned here, which is outcome. It's one thing to have cost, but then the other part of the metric really should be outcome. And you have to decide, is the outcome being reflected in what you are measuring in terms of the cost? I mean they have to be in sync. And I'm not sure that data exists here to know that.

So in other words, we are measuring patients who have coronary artery disease versus patients who have carotid plaque - outcome is very different - may be very different in terms of what's good in terms of treatment. And the metric for that is going to be very different for that as well, what you're actually going to be measuring as an outcome.

So I think there has to be some parallel, you know, we have - there has to be consistency across both the measurement and what the outcome measure would ultimately be.

Jeptha Curtis: So let me interrupt. I think, though, that in terms of broadly importance, I think, criteria, I think we can probably all agree that it's going to be in generally (metal) though we may differ slightly on the - what should fall under the umbrella of this particular measure. But I want to be mindful of Sally and Ashlie's recommendation that we move quickly into the...

Dr. David Palestrant: Sure, okay. So let me go into scientific accessibility, and I think it's been reviewed, and the - this is open source information from NCQA. Basically the scientific measure of how I understand it is that costs are worked on, on our resource - relative resource unit, so essentially they don't take the actual cost, but they take what the RVUs essentially would be, so in other words what the costs, standard costs, are. And then this becomes more of a measure of actual resource use versus cost.

And so I think it's a very valid way of approaching this, and from a scientific standpoint it seems to be a good way of proceeding. It's then each grouping or person - each subject or patient is then stratified according to risk, so it's risk-adjusted in terms of the cost. It's not absolutely clear to me

which risk adjustments are used for each patient and how the categories all get placed, and I think that's probably a very complex algorithm that once again gets important in terms of interpretability, how you'd interpret this down the road.

This also measure is using databases that are coming from insurers, Medicare. It's a fairly broad range. It doesn't include patients who are elderly. It's only up to age 75, which is the limit. And the other issue, it only will include groupings where there's more than 400 people, I guess, with that level of diagnosis. So that also kind of would restrict its use in terms of - it really is to be used for very big groups or very large groupings.

But I think we've discussed the scientific acceptability overall, and I don't see this being different from what was discussed before, and if anybody else feels differently...

Jeptha Curtis: In terms of the overall approach that's being taken?

Dr. David Palestrant: Yes. Yes.

Jeptha Curtis: Okay.

Dr. David Palestrant: I mean, I can go into detail, but I think we were trying to keep this brief, correct?

Jeptha Curtis: Yes, I mean I think we need to go into the details of what's in each subcriteria, but not necessarily focusing on the general approach again. Others, do you agree?

Katherine Reeder: Yes. (Kay) Reeder.

Ashlie Wilbon: Yes. So, it sounds - this is Ashlie. It sounds like Dr. Palestrant, you got through kind of talking about how the measure specified which covers 2A1, and 2B2 as well - I'm sorry, 2B1 also addresses the specifications.

Dr. David Palestrant: Right.

Ashlie Wilbon: So...

Maryann Clark: Can I just ask a question? It's Maryann Clark. What was the measurement period?  
What's the...

Dr. David Palestrant: So this - yes, this is, from what I understand, it's a one year measurement period, and patients can come into it at any point within that year and they'll be included. It's - well, you know, there's a bunch of exclusion criteria which seem pretty realistic for people who lose insurance or who aren't - would be not be included. They've excluded patients who have AIDS and cancer, organ transplant which I guess would fit into another big category. So it's very similar to the exclusion criteria, which have been used with other patients.

Maryann Clark: So, the next - I'm supposed to be discussing the next one, and these two are very kind of similar, except almost a little bit the opposite. So on my measure, which they're defining as "Episode of Care for Management of Chronic Coronary Artery Disease", you know, they kind of are titled similarly: "People with Cardiovascular Conditions". But in the other one they exclude patients who have had CABG or PCIs, but anybody who has had any other diagnosis of coronary artery disease is included, so it's kind of - I don't know. It seems like we need to figure out which - what are the best measures to have for coronary artery disease, because these two are...

Sally Turbyville: Wait. This is Sally. It's a really important conversation, but if we could get through for this measure and then later on we'll start talking about comparing measures to measures. It's difficult

for us to track the conversation if we, unfortunately, deviate from going through the subcriteria, so please remember what you want to express to the group, but if we could get through for this measure, whether or not its reliability testing was adequate and have Dr. Palestrant...

Dr. David Palestrant: Okay. Sure. Okay, so if you can click on the screen on the computer. Can you scroll down a little bit? We have 2B2, correct? So in terms of the reliability, I went through the data here, and I'm no statistician, but basically they've been using this data from what I can understand for fifteen months, and they've run a series - they've used this approach but not necessarily for this data group, but for using it for diabetes and other conditions. And it was a very large population. They showed measurements that were consistent and were used throughout the different modeling.

So it seemed to be - from my standpoint it seemed to be that the actual approach seems to be a valid approach. My concern once again is that I don't think - and maybe the developer can comment here - this hasn't been used per se for this measure as we know it. And I don't know if they've published full data for this measure per se. So you know, it may have been applicable to the other data sets they used, but do we know that they can absolutely do it for this measure?

Ashlie Wilbon: Mohua, do you want to comment on that?

Mohua Choudhury: So, you're asking whether or not we've produced solid data for this measure in particular?

Dr. David Palestrant: Yes.

Mohua Choudhury: We haven't publicly - well, actually last year was the first time we publicly reported it for the commercial product line. We have been doing an annual analysis since the measures

were established about four or five years ago. So we continue to publish the information, but it's probably going to take another year or two, I guess, in the sense that you were referring to.

Dr. David Palestrant: Right. So, have you published it for your product line for this criteria alone? In other words, patients with newly diagnosed with - people with basically, with recently diagnosed cardiovascular conditions, which this refers to? Has that been published, and is that currently being done?

Mohua Choudhury: Yes. It's been - it was published for the first time last year in our Quality Compass product for the members in the commercial product line, and we're actually going to be expanding hopefully to the Medicare line in the next year or two. So we will continue to publicly report this information.

Dr. David Palestrant: Okay. So, I guess it has been this - you know, I'm not sure - there obviously is not a long track record. Can we just go - so, you know, I didn't have any issues per se - I don't know if anybody else did - with how the calculation is done and how the data is derived. Essentially, you know, the data is derived as of served versus expected in terms of cost, and it's - basically what happens is the institution is being compared both to a theoretical sample within the - nationally, and then a theoretical sample regionally, based on the aggregate data of all of the sampling in the data base. So it makes sense, and of course because this is - the costs are standardized costs - it is quite a good measure of the resources being used within - resources used by whoever is being evaluated.

Katherine Reeder: David, this is (Kay) Reeder.

Dr. David Palestrant: Okay.

Katherine Reeder: Can you hear me?

Dr. David Palestrant: Yes, yes.

Katherine Reeder: When you say standardized costs - I can't remember in this one - did they take in healthcare organizational and regional variations?

Dr. David Palestrant: Yes, I think it's based on - and the developer can correct me if I'm wrong - but it's RVU standard, so that comes in by the Medicare regional cost difference.

Katherine Reeder: Right, thank you.

Mohua Choudhury: Yes, that's correct.

Katherine Reeder: Yes, thank you.

Dr. David Palestrant: Okay. So, yes, that's taken into account, and then of course for the costs, they're looking at basically pharmacy costs, evaluation and management costs, hospital costs, outpatient procedure costs, you know, and radiology costs.

So it's pretty broad in terms of the - to me, it seems that they're encompassing most of the costs that would be associated and capturing it. It seems to be doable and feasible in the sense that these are databases that are ongoing and existing and this is all electronically reported, and I guess the insurance companies are presenting them with the data and they have a track record of the data being clean and the - and being accessible from the companies.

The companies don't include their - once again, they don't include what they actually charge, so it's just the resource use. And they seem to have a good mechanism for scrubbing the data and making sure that the data is clean.

Katherine Reeder: Thank you.

Dr. David Palestrant: I'm sorry. I'm not sure where we are on the screen. I'm sort of jumping around here  
a bit.

Sally Turbyville: Hi. Yes, so I think - by conversation I was kind of trying to kind of scroll it down...

Dr. David Palestrant: Yes.

Sally Turbyville: ...to get to where we are. It sounds like you got through reliability and validity testing, an  
overview of that.

Dr. David Palestrant: Right.

Sally Turbyville: So let's go down to exclusions. I think we'd already - you'd talked a little bit about  
exclusions in the beginning.

Dr. David Palestrant: Right.

Sally Turbyville: So I'm going to kind of scroll past that, and for those of you that are on the webinar,  
sometimes it does take a minute for your screen to catch up, so just bear with us as I move the  
screen down here a little bit.

Dr. David Palestrant: Right. Now...

Mohua Choudhury: Ashlie?

Ashlie Wilbon: Yes.

Mohua Choudhury: This is Mohua from NCQA. After we go through the measure overall, there's one more thing I'd like to circle back to, if possible.

Ashlie Wilbon: Okay. Sure. Do you want to just make a comment now, if that's okay?

Mohua Choudhury: Yes. Sure. So, if everyone can look at section S, 9.1: Brief Description of Construction Logic.

Jeptha Curtis: That's page 14 in the PDF?

Mohua Choudhury: Yes, sir. So, due to just a typographical error, we accidentally put the eligibility - eligible population criteria for the diabetes measure, but it should reflect the same information as section 8.2 for the cardiovascular measure. I just wanted to note that for the record.

Dr. David Palestrant: Okay.

Ashlie Wilbon: Thanks, (Mo). We'll have you guys update that, so we'll work with you on getting that updated.

Mohua Choudhury: Okay. Thank you.

Dr. David Palestrant: All right. So, in terms of the stratification criteria, just going back - this is one area that I do have a little bit of issues because I'm not - I wasn't quite sure how the - and maybe the developer can discuss this a bit more - how the different risk stratification criteria exactly worked out and what's included and what's not included.



Why I think this is important is that once someone - once an institution is using this data, documentation of severity of illness and knowing - being able to compare apples to apples - is going to be based largely on the stratification. I don't know if the developer can sort of talk a bit and give us just a quick overview of how they - in terms of stratifying the patient.

Mohua Choudhury: So you just want to know our stratification methodology?

Dr. David Palestrant: Exactly. I wasn't clear on what's included in terms of the stratification and whether or not - I guess we need to go back because I wasn't quite clear how the stratification was working and if the stratification groups are completely legitimate or not. In other words, what data is being used to know that this patient is high risk or not high risk, or should be using cost - higher cost or not using higher cost?

So I'd imagine someone who's obese, who has diabetes, who has renal failure, who has coronary artery disease, is a higher risk than a 40-year-old with hypocholesterolemia and a coronary artery disease. You understand? But there is some data out there to know what these groupings would be and to - who is actually at higher risk and who is not at higher risk. And so it becomes important in terms of the scientific validity of this to know - are the truly the groupings, groupings of people who are truly higher risk?

Mohua Choudhury: Right, and are they being affected?

(Crosstalk)

Dr. David Palestrant: Yes.

Mohua Choudhury: I would actually say that in terms of our stratification, I think we define it a little bit differently, because what you're describing actually relates more to our application of HCCRA methodology in terms of grouping, depending on how many morbidities a patient might present.

Dr. David Palestrant: Okay.

Mohua Choudhury: But I understand what you're saying.

Dr. David Palestrant: Okay, so how - and so you're - how are you grouping this exactly in terms of the restratification?

Mohua Choudhury: Well, each number, if we want to actually jump to maybe section 10.3, if you look at it, calculate it, actually...

Dr. David Palestrant: I think it may also be page 31, essay.

Mohua Choudhury: Sorry, it's section 10.1: Risk Adjustment Method, page 19. If you look through each of the steps of those, we basically identify the members basically based on the qualifying diagnosis, and then based on that, we determine the HCCRA used for each condition category identified. Then members get assigned to a rank, and then a ranking group, and then get assigned to the HCC group accordingly. So that's kind of how we try to group them based on how many morbidities and coma ((inaudible)) they're presenting.

Dr. David Palestrant: Okay. But do we know that these groupings are actually valid?

Mohua Choudhury: I think we've compared them to information available, but I would have to follow up on that.

Dr. David Palestrant: All right. If you don't mind, I mean, because that becomes important. I mean, you want to make sure that you actually are capturing a stratification system that has been validated in the past.

Mohua Choudhury: Right.

Dr. David Palestrant: And there's data for it.

Jeptha Curtis: I think the HCCs have been pretty well validated as predictors of cost. Is that your concern?

Dr. David Palestrant: Yes. That you're absolutely - exactly. So, that was my question. So they have been validated?

Mohua Choudhury: They have actually been validated and I believe in either March or April of this year, RTI actually performed an analysis of the HCCRA methodology, and kind of recalibrated it and everything and it continues to be valid.

Dr. David Palestrant: Okay. All right.

Jeptha Curtis: I did have one question maybe you could answer is ((inaudible)). In what time frame are the variables used for risk adjustment identified. Is it in the antecedent year, or is it concurrent with the year of measurement? You know, it was just a little unclear in my head after going through the application.

Mohua Choudhury: Actually, I will have to double check the - I think it aligns with the eligible population criteria, which I believe the event-based - the patients that are identified by event are looked at in the year prior to the measuring year, and then the patients that are identified by diagnosis are

looked at during both the measuring year and the year prior to the measurement year. So the risk adjustment criteria would align according to those time frames.

Jeptha Curtis: That seems a little odd to me. I just - again, we've come across this in a couple of other measures, but if you have - if you're risk-adjusting for things that you're observing, how does that work? And you know, can you just justify that decision? I mean, traditionally for outcomes measures or process measures, we risk-adjust on things that are observed prior to the period of observation.

Ashlie Wilbon: Yes, hi, Mohua, yes, if you could follow up on that and get back with us. We'll send you an email to kind of capture what questions came from the TAP.

Mohua Choudhury: Okay.

Ashlie Wilbon: Thanks.

Dr. David Palestrant: Okay. So I think that's - anything else in terms of the scientific issues? Yes, I know we wanted to keep this to five minutes? Has everybody...

Ashlie Wilbon: Yes, we're - we've got about three more minutes before we would probably like to transition to the next measure. I think the other couple of scientific acceptability subcriteria we had were about - let's see, TB5, that the data analysis demonstrates methods for scoring an analysis, that allow for identification of statistically significant different meanings and differences.

Dr. David Palestrant: Right. Yes, I didn't find any issue in this regard. I think that they have shown that they can find differences. What the differences mean, I think, is a different story, but they can find differences.

Ashlie Wilbon: Okay, and I think for 2B6, which addresses multiple data sources, I think we found with other measures that, you know, all these measures use the same data source for administrative data, and disparities is kind of a general issue that we're going to need to follow up on. So I think for now we can maybe move on to usability and feasibility.

Dr. David Palestrant: Okay.

Ashlie Wilbon: And I would like to call your attention to the memo that I sent out Tuesday, and I'm going to bring that up on the screen. And Jephtha, maybe if you want to kind of recap what you guys rated for the previous NCQA measure, and see how the TAP feels about either doing block voting or if there should be discussion on certain parts of usability and feasibility for this specific measure.

Jephtha Curtis: I would, but it's very hard for me to read the screen.

Dr. David Palestrant: Yes.

Jephtha Curtis: It's just showing up very small on my Web page for some reason. So I think - so then, what you're proposing is that we go through and formally vote right now and you're asking can we do it by blocks, looking back toward what we've done on each measure's similar measure?

Ashlie Wilbon: Right. So looking at what you guys - how you rated the other NCQA measure at the meeting, which is in yellow, the yellow bars, if everyone feels like that would be pretty consistent of the general feeling of...

Dr. David Palestrant: Sure.

Ashlie Wilbon: And applicable to this particular measure, then you can, you know forego any discussion and just kind of agree that you'll submit your ratings online?

Dr. David Palestrant: Can I just bring up one general discussion?

Ashlie Wilbon: Sure.

Dr. David Palestrant: Which is something I still have issues with, and which I have with quite a few of these measures. First of all, there isn't a very long track record of these measures being utilized in terms of - especially this one, I guess hasn't been one year of reported data. And if we're, you know, if it's an endorsement of it, then obviously we're endorsing not on a whole lot of evidence.

The second thing is, as best as I know, I don't know what the data is of institutions that are - or providers who are getting this data and how it's actually changing practice, which - and that brings me to the next problem, which is that these are hugely broad criteria that have been included, both in terms of people being included and those of being excluded.

So if I was a practitioner or a health group, and I get the score, how am I to know what I can do to change my costs down the road? What would affect the score and what wouldn't affect the score? And I think if you - we've got to be judging people or grading people or grading organizations, it's only fair to know, how can they change practice in order to measure the score, because that's ultimately the goal, right, is to cut - to make sure that these resources that we're using are needed and that they're not too expensive?

And so by getting the score, can we actually affect that change. And I know obviously there is nothing in the submission to tell me that one way or the other, but I do worry that it's extremely broad. And so if I've got a measurement to say that I was 1.3 for my utilization, what does that actually

mean? Did I order too many CT angiograms? Did I do too many angiographies? Did I, you know, prescribe too many statins? What does it mean?

I don't know if anybody has an answer. I'm just putting it out there, because I think it does talk about what, you know, usability and feasibility - and what the actual goal, from what I understand, of measuring resource utilization is.

Jeptha Curtis: And then it's irrelevant to the comparison with our prior scores for the NCQA measure. Is this different in terms of the track record from that measure? Had that been reported, or otherwise evaluated for a longer period of time?

Dr. David Palestrant: Are you asking that to...

Jeptha Curtis: Well, I certainly don't have the answer. I guess the developer would have to...

Dr. David Palestrant: Yes.

Mohua Choudhury: Actually all of the measures were established at the same time, so it should be the same thing.

Dr. David Palestrant: Okay, so if I were - if you were giving me this measure and I was a practitioner, how could I go about knowing how to change my behavior or what my - if I was using, having high costs - if my costs were high, or - high resource utilization. Let me say that differently. How would I know where I'm too - my - where my resources - resource utilization is too high?

Mohua Choudhury: Well, we do offer specific service categories when evaluating that. So they would have to refer to that in the specifications. We also do service frequency counts, so basically you can look to see based on those groupings to see where the resource use is high or low.

Dr. David Palestrant     So could you give me more specifics? Like, how would that function? So what would be that resource use? Would it be too many - too much - would it just be drug or would it be imaging or would it be specific like, too many EKGs ordered?

Mohua Choudhury: I don't think it gets that specific quite yet. I think actually the groupings right now are fairly broad. For instance, we applied January's prices to service categories that are based on in-patient facility, evaluation and management, laboratory, surgical and procedures, and then, for our frequency service counts, we looked at total in-patient facility, ED discharges, pharmacy utilization. So...

Dr. David Palestrant     Right. So those are extremely broad. I mean, those are very much 100-degree views, 100-mile views of the issue. But then to affect change in resource use - that's my question. How does an institution go about doing that on actual given data?

The other side of this is that the way then, from - I would say if I was an institution, and with the experience of some institutions, how they're going about adjusting for this is to try and upcode their patients so that their patients become higher risk, and therefore become lower - they jump into a higher risk category, and they make sure that they get the coding to do that, and that lowers their score. But that's not actually affecting resource utilization. It's just affecting the way that people are being coded and stratified.

Mohua Choudhury: Right. And we have actually referred that concern before and some of the activities that we're doing with the RU measurement that in the next year is to basically get closer to what's happening at point of care and look at, for instance, EKGs. We've been trying to work with other partners at looking at apparent price indexes and total expenditure. So it's something that we're kind of trying to move towards, but for now we have to aggregate it and look at it at the higher level, just to make it applicable across plans.



Dr. David Palestrant     Okay, so based on that, I mean, just from my perspective, when we're looking at criteria 3B and 3C, I would have to report it as low, just from my perspective, because they - is it meaningful and useful for public reporting? No, I don't think so, because I don't know what can be done about it. And the same thing for transparency and understanding. I'm not sure it can really be decomposed to data that can be utilized. That's just my perspective. So...

Jeptha Curtis:     So, is it - is it different than for the other measures, though? Is it less usable than how we voted for the diabetes? Not that we have to be consistent, I'm not telling you to be consistent, but how do we go...

Dr. David Palestrant     I don't think it was probably different. I guess I may be the one who voted the M's for those last two measures on 3B and 3C, but I have the same issue, I think. Maybe not low but at least medium. I'm just not sure in this case - if I was to get this grade, I'm not sure what I would do with it. That's the real question.

Jeptha Curtis:     And that raises the point though, is, I thought that the focus here was for a pair-to-pair comparison, and that they weren't proposing or asking for endorsement of it to be used at a provider or hospital or more granular level.

Ashlie Wilbon:     You are correct, Jeptha. It's submitted as a group health plan community or regional measure - national or regional.

Dr. David Palestrant     Yes, so that's not a pair. I mean, a group or a health care plan would be - fall into this criteria. So if I had a group of 100 physicians, and with over 400 patients who had cardiovascular disease, then I would be grouped. Then once again, how would that be reported? How would I know what I could fix to improve my cost?

Ashlie Wilbon: And you know, right, so I think that those - we've captured those points. Those are very important, that it sounds like there's some concern about how the measures reported out would be useful. I know that most of the developers - and I'm not sure if (N. C. Craig) did or not, as well - did attach sample reports and you know, I...

Dr. David Palestrant Yes. There were sample reports for at least as much as the complete report, but that was part of my question I came up with.

Ashlie Wilbon: Right. Sure. Okay.

Dr. David Palestrant And I'm not saying - when I use "I", I'm sort of sorting it out to be sort of the - not necessarily the literal I. You know, if I was the CEO of a group, then how could I use this?

Ashlie Wilbon: Sure.

Dr. David Palestrant If I was the CEO of a health insurance plan, how could I use this?

Mohua Choudhury: Right. We did submit an attachment that had screenshots of our Quality Compass product, and the different plan detail tables and scatter plots that you can see, if you were plan trained to look at your results. And we also submitted the original field test report that was used when testing these measures.

Dr. David Palestrant Okay.

Ashlie Wilbon: So if - does anyone have any other comments on usability or feasibility, or have enough that they would be comfortable with submitting their ratings at this point, on each of the criteria for this measure so that we can move on to the next one? Anything else, Dr. Palestrant, you'd like to add before we wrap up?

Dr. David Palestrant No, that's - I'm unfortunately going to have to sign off. So if anybody else has any questions, I have to get back to the ICU. But - does anybody else have any questions?

Jeptha Curtis: No, I think that's fine, but I'm a little unclear as to the process of how we're going to vote today.

Ashlie Wilbon: Well, no. We - I emailed you a memo this afternoon with a link in there.

Jeptha Curtis: Right, so...

Ashlie Wilbon: At the end of the call you'll...

Jeptha Curtis: After the call is over...

Ashlie Wilbon: Yes, that's right. You'll have what you need to submit your ratings. So the discussion is really just to get you ready for that at this point.

Dr. David Palestrant Okay.

Ashlie Wilbon: Oh. Okay, thanks.

Jeptha Curtis: Thank you.

Ashlie Wilbon: Thanks, Dr. Palestrant.

Dr. David Palestrant Thank you.

Mohua Choudhury: Thank you.

Sally Turbyville: Briefly introduce her.

Ashlie Wilbon: No.

Sally Turbyville: ((inaudible)) Sorry.

Ashlie Wilbon: So, is Robin or someone from ABMS on the line who would like to introduce the next measure? 1572?

Dr. Kevin Weiss: Sure. We've got - this is Kevin Weiss. We've got Robin Wagner and I think in a different location we have Kevin Stroupe. Is Kevin on the line as well?

Kevin Stroupe: Yes, I'm on the line.

Dr. Kevin Weiss: That's great. So let me just do a very brief introduction, because I know you all read the measure in detail, and just to get a flavor of what we were looking at to our work group development here. This is part of a series of measures, but what we - what the work group was focused on is the fact that there are a lot of people who have just - what I will use in vernacular, "meat and potatoes" coronary artery disease. These are individuals who are going year by year with a diagnosis on treatment.

The group thought that there was pretty clear guidelines on what to do here, and that in spite of it all, that there is probably a lot of variability on medication, and on use of diagnostic modalities that probably, to a large extent in the working group, they felt were probably overused a great deal. So they felt it was important to look at this type of a very clear set of individuals who are in this, again, what I would call a very "meat and potatoes" CAD group.

It is a measure that they felt could be, should be attributed to the primary care giver, provider, the primary physician, because it is a chronic care model, and so - and we did propose this as a physician-level measure. I'll stop there in terms of introduction, and of course you have all the details beyond it. I don't. Kevin Stroupe, do you want to add anything to what I've said.

Kevin Stroupe: I think that's a good overview on sort of summarizing that this is a chronic measure over a one-year period where patients are identified with CAD during the year prior. And then we assessed the health care resource use and cost during that one-year measurement period.

Jeptha Curtis: Okay, can you comment on how this is in alignment with the other measures, or which of the other measures this is paired with?

Dr. Kevin Weiss: Well, we had another measure that was on revascularization, which you have previously reviewed at a different date, and so that was the other subpopulation of interest, but this really, as it should be, stands on its own as a measure of these stable CAD patients which are very prevalent in our country.

Jeptha Curtis: Right. But I just wanted to make the point that there is a post-revascularization measure that sort of is complementary to this.

Dr. Kevin Weiss: It is, and you have reviewed it, and I have to say you had a lot of concerns about it, just as you may recall. You as a group, not you as an individual.

Jeptha Curtis: Sure.

(Crosstalk)

Jeptha Curtis: ((inaudible))

Dr. Kevin Weiss: No, that's fine.

Maryann Clark: There was also the AMI measures, too, as well, right?

Dr. Kevin Weiss: We do have AMI measures, which was an acute 30 day, which was viewed as a hospital- or system-based measure, and then a 31 through 365, which would be long term follow-up of AMI. But that's - those are excluded here, so we're - again this is as best as I can in vernacular describe it, "meat and potatoes" CAD. All those people who are on all those chronic medications and are getting - getting or not getting testing - along with the time.

Ashlie Wilbon: Thank you, Kevin. Jeptha, if you could lead the group through importance on this measure, and then Maryann, we'll have you dive into the scientific acceptability.

Jeptha Curtis: Okay, and it's - I think we can make this fairly quick, because the - again the measure is complementary with these other measures, all of which I think voted reasonably high on terms of importance with the - largely the same argument that they made in those measures, that, you know, this is CAD. It's a high cost, high utilization, and highly morbid condition. So I really don't think we necessarily need to spend a lot of time on importance at all in this case, although if there are any specific concerns from the other TAP members, I'd be happy to hear them.

Okay, so barring that, Mary, do you want to go ahead and start going through the scientific acceptability.

And just - I think we have, as you said, about 30 minutes to try and work through this particular measure's scientific acceptability. Correct?

Ashlie Wilbon: That's correct, yes. That's the goal.

Maryann Clark: Okay. Sure. So as the developer stated, it's for - well, I'm glad to hear the additional description of stable coronary artery disease, because as I first read it, it was a little unclear to me. But stable coronary artery disease patients, and in order to qualify for inclusion, the patient had to have had in the previous year, the year prior to the measurement year, a diagnosis of coronary atherosclerosis, which is code 414.XX in any diagnosis field.

And then the exclusions were several exclusions: patients with a bypass, previous bypass procedure in the year prior to the measurement year, PCI or - let's see - AMI as well, I believe, and acute coronary syndrome as well. And then there were some other standard exclusions which were common to the other measures, such as cancer, ESRD dialysis, organ transplant, HIV, pregnancy, and vasculitis. So all of those were excluded.

I was wondering about on the inclusion criteria, though, there's one particular code which is lumped into the 414 code range, which is 414.10, which is aneurysm of heart vessels. I didn't know if that was something that should be excluded as well. So that's something to bring up.

Let's see. In terms of angina patients, I believe those - there was nothing included or excluded with those, was there? I'm trying to remember. From the measure developer.

Dr. Kevin Weiss: Well, the exclusions were the prior revascularization with a PCI or a CABG, a prior AMI or acute coronary syndrome, and then those standard exclusions along with vasculitis.

Maryann Clark: Right.

Dr. Kevin Weiss: Those are the exclusion criteria.

Maryann Clark: So I guess in terms of angina - that was my question - those patients weren't specifically included or excluded. Right?

Dr. Kevin Weiss: The - those patients - those would not be among those excluded.

Maryann Clark: Okay. But I mean, they weren't specifically included either, right?

Dr. Kevin Weiss: The patients explicitly included would be those with the - that - with the coding that you had mentioned.

Maryann Clark: Right. So I'm just wondering whether those patients should be included. Anyways. Does anyone else have any input?

Ashlie Wilbon: Yes, so, maybe let the TAP discuss this further. Thanks. Go ahead, Maryann. I think it's a good question for your colleagues to think about.

Maryann Clark: Yes. I mean maybe everyone is being captured, but I guess I'm just wondering if someone - if we're trying to capture patients with chronic coronary artery disease, the only code being used to identify those patients is the atherosclerosis code. So do we want to also include - should angina codes be included as well?

Jeptha Curtis: Yes. So the 414 is the only inclusion code criteria? Is that correct?

Maryann Clark: Yes. Yes.

Jeptha Curtis: Then, to me, I mean, it does seem like a little narrowly focused, potentially, when there are other codes that capture the spectrum of chronic ischemic heart disease, potentially. And I'm thinking the 413s specifically here, and I guess there are other codes that might capture part of that, like ischemic heart disease. Sorry, ischemic cardiomyopathy and things like that.



So maybe I would ask the measure developer to provide kind of a broader justification of why just focus on that one code, and what evidence do they have that that's really capturing the entirety of the population that they feel is represented by chronic coronary disease?

Katherine Reeder: Maryann?

Maryann Clark: Yes?

Katherine Reeder: This is (Kay) Reeder. I'm - I wrote a note. I don't think anybody saw it. I'm at a loss as to what page on the PDF. Are we on page 10 and 11 where all the codes are listed?

Jeptha Curtis: That's where I am.

Katherine Reeder: On page 11?

Jeptha Curtis: Pages 10 and 11.

Katherine Reeder: Yes. Thank you.

Jeptha Curtis: So, I'm sorry. I was asking the measure developer maybe to comment on - or to provide a little bit of rationale about why exclusively 414.

Dr. Kevin Weiss: Yes, again, this was - the intent was to look at a very specific common diagnosis of coronary artery disease. We recognize that there would be a lot of individuals who have a code incident diagnosis of angina that we would anticipate, and those would be obviously included if they were coincident. The question is, is what would it mean to have a diagnosis of angina without a CAD diagnosis?

And the work group didn't feel that that would be very common, and to their clinical judgment, it didn't feel like it was an important issue. But if you - as you - if you feel this is an important issue, it's very easy for us to get a scent of what proportion of angina patients who don't have a CAD might be excluded from this kind of an inclusion criteria.

I guess from what I remember them saying, it would be a very small population and it probably wouldn't make a huge difference in terms of interpretation, but it may be something that you feel is important and therefore we would be responsive to that.

Dr. Michael O'Toole: Yes I - this is (Mike) O'Toole. I can tell you what we do locally in trying to deal with this in coming up with, you know, an ICD-9 set that represents CAD patients, and the ischemia cardiomyopathies I think are an important missing.

All the old MI diagnoses, the 412s, the 410s - I know you excluded anyone who had a recent MI, but the - it's kind of a leap of faith to assume that if I have someone with an ischemia cardiomyopathy that I'm going to remember to also put down that they have CAD-native vessels.

Angina - I always have trouble with angina, because angina gets equivalent with chest pain, and how many of them really have CAD versus other causes of chest pain? So I never really like the anginas being included in them if they didn't have a CAD diagnosis, because I think trying to discern what is angina and what's non-coronary chest pain is what I spend a lot of my day doing. And I don't think it's very easy.

So that one I could see leaving out if they don't have a concurrent CAD, but if someone gave someone an ischemic cardiomyopathy diagnosis, they've got coronary disease. There's also the (V) codes. So if someone had a PCI or a bypass surgery and that's all you had, well I know there's a few times when you'll have bypass surgery for something other than coronary disease, but that's few and far between.

So we include the (V) codes for interventions and procedures. We include the ischemia cardiomyopathies, we include the 410s and the 412s, which are the old MIs, and the acute MIs in addition to the 414s. And we leave out the 413s, the anginas.

Although the - again, that should be a smaller number. But I don't think you can assume, if you're using claims data, that the physicians, particularly in the outpatient setting, are going to remember to put down every combination. They're going to put down the ischemia cardiomyopathy and leave it at that.

Jeptha Curtis: Right. And I guess that's actually stated what - just my concern that, you know, it's a very narrow focus. It's elegant in its simplicity, in some ways, but need to be - at least I need to be convinced that it's capturing a relatively complete population.

And I don't know what the data would be, but I guess if you have the data, you know, just thinking off the top of my head - if you had a PCI in the prior - two years ago or in the prior year, what are the chances that patient not having a 414 code in the following year, if that makes sense? Like you know they have the disease, but are you really capturing that patient that has this history of coronary disease now? And maybe more empiric analysis to round out that argument would be useful.

Dr. Michael O'Toole: I can tell you what we did locally to circumvent this problem is that we have a little computer algorithm that runs every night. And it looks for people that have the (V) codes and the ischemic cardiomyopathies, and it automatically gives them the 4.4 code.

Because again, you know, when we're taking care of patients, we're not thinking about, "All right, do I have every combination of codes here that I need?" And I could probably dig it up and figure out what the percentage is of people with ischemic cardiomyopathies, (V) codes, et cetera, who

the computer had put in the 414, but it's not a small number. It's not a rounding error. So  
(actually) the ischemic cardiomyopathy.

Jeptha Curtis: Mary, maybe we - you know, we can - I think...

Mary Shaffran: Okay.

Jeptha Curtis: ...you guys (think you have) to make the note, and we can keep going through the criteria  
then.

Mary Shaffran: Right. I guess I just, you know, had some concerns about the inclusion and exclusion  
criteria and really what the patient population is. And I know that the - so it sounds like the bypass  
surgery PCI, AMI patients were excluded because it was though that the - those patients would  
have higher costs, but those patients would have coronary artery disease.

Dr. Michael O'Toole: And that...

Mary Shaffran: I guess...

Dr. Michael O'Toole: ...and if they had a diagnosis of an MI two years ago, well then you'd want to  
include them, but that might be the only diagnosis that you have identifying them as CAD, you  
know, the 410 that they had a year and-a-half ago. Or they may have been switched to the old  
MI, which are the 412s.

Mary Shaffran: Right. Okay. So let's see, those (are) the inclusion and exclusion. Oh the other exclusion  
or I guess inclusion criteria is that patients had to be over the age of 18 - 18 and older and  
continuous enrollment during the measurement year. So I guess that means everybody had to  
live.

Jeptha Curtis: Well, is that true? Or is it just that they - their status had to be known for the entire identification and measurement period?

Mary Shaffran: I think it had to - they had to be enrolled for the entire measurement period, but if you want to comment on that ((inaudible)) developer...

Kevin Dollard: The individuals needed a continuous coverage in the identification and in the measurement year so that - to ensure the data would be available to examine their resource use and cost.

Jeptha Curtis: And if they died?

Kevin Dollard: Excuse me?

Jeptha Curtis: And if they died during the measurement year?

Kevin Dollard: This - for these, the population ((inaudible)) had to - had - would have had continuous coverage so that during that - this time period. The - this - so this wouldn't have focused on a population that had had mortality.

Thomas Lynn: Okay but I think that's good to know. And so just want to be clear. So if you were in the cohort and measurement, I guess you would've - you would've not been in the cohort if you didn't live for the two years. So Mary, you're correct in that.

Mary Shaffran: Right.

Thomas Lynn: And I guess what's the rationale for that?

Kevin Dollard: That this is focused on a population of - with CAD that would be in a more stable management phase of their condition to try to create more of a homogenous population that is possible for assessing their resource use.

Male: I'll add to that, that our measures - we look for consistency across all of our measures and so that is - unless there was a really obvious reason why it should be a short period, that the enrollment would be consistent. So we didn't see any reason why that should differ for this particular measure as well.

Thomas Lynn: Yes just - I don't think we actually picked up on this on our review of the prior measures, (that in fact your) - so what happens then with any of your measures if someone does in the measurement year? I mean they - like, how is that not relevant to this measure? That they have a prolonged hospitalization with lots of associated resource use, but then unfortunately pass away at the end of that? Is that invisible in this approach to measurement and is that reasonable?

Kevin Dollard: Well for our chronic conditions, which is to a large extent, where we have this, we are looking not really at patients who are extremely sick in these conditions. So whether it be for diabetes or for, in this case, CAD or asthma, we are looking for essentially the bulk of the patients who are going through the process. Not the outliers who are (interminus) in their care journey, recognizing that patients in the last few years of life - or last few months of life have a very different pattern of health care needs, and those translate into a whole different pattern of resource use.

And that our measure were respectful of that, but that in fact what we're looking for in - are the - on our chronic measures, including the CAD that you're looking for, is for the stable person who is being cared for over a year's time. What does that care look like? And it's a very straightforward philosophy of how to take a look at that measure of population - measured population.

Mary Shaffran: I guess this is where I'm - also have difficulty with not tying these measures to outcomes.

You know, so if somebody has an MI during this year, those costs are accounted if they live. But if they die, they're not counted.

Kevin Dollard: Correct. And that is the nature of why these measures were built to about a year for chronic care, because the quality mix in this area are based upon a year. So you - we - so these measures can't be everything - can't measure all these different dimensions, and we do have a philosophy built into this that these should be paired with quality measures.

And that is exactly the reason why, because you really want to know, not just with average research use, but also on a very separate and very pinpointed expression, this is one of the key outcomes for the same population that are clinically important.

Mary Shaffran: Okay. Does anyone have any other questions on that?

Dr. Michael O'Toole: This is (Mike) O'Toole. I guess, you know, it strikes me as over-simplistic for what the problem is and that, you know, unfortunately, I think a lot of patients with coronary disease are stable until they're not. And that often occurs at three o'clock in the morning and very suddenly.

And so there's not this linear progression where you've got stable coronary disease and then they develop a little angina and a little bit more angina, and you've got, you know, months to years of progression before they have an MI, that they're stable until they're not.

Kevin Dollard: If I might - this is Kevin again. (Resource) use is captured, which is very comprehensive as you'll see as you discuss that. It's not as though we're excluding that. It's just if a person dies in

this population, which are not expected to be a high count, it's just that this measure is not looking at the people who, in some sort of random fashion, died.

Now the question from our working group's perspective is, does that create an unnecessarily biased look at CAD? And is it create a false positive or a false negative or some sort of a ((inaudible))? And one could argue that for that very small population of people who die with CAD that year, that that represents an important part.

The issue our working group sort of said was, from a research perspective, that's not - that's more of a quality concern and that we really couldn't easily capture that in this population. We still have a homogenous look at what we're going to look at in terms of medication use and diagnostic imaging, and we'd be - it would just add more noise to the system to have that group.

But, as - I don't view it as a simplistic measure. I think it is a certain - looking at a very large but straightforward group of patients with CAD. But, it is capturing all those events.

Male: Okay Mary. Do you want to keep walking through?

Mary Shaffran: Sure, sure. So then what was measured over the one-year period were trying to identify cardiovascular disease -related costs using very specific codes - diagnosis codes as well as procedure codes. And I think the same comments that we have on the other measures apply here in terms of, you know, some coding that needs to be updated.

And I was wondering about, you know, there were lots of different types of, I guess, cardiovascular services and - that were attempted to be identified, but some were not included, and I guess the, you know, so, I'm - I don't know how ones were chosen to be included versus others that were not. I believe - and, you know, in the previous discussion we were talking about, you know, stroke and endarterectomy. You know, those aren't - I don't think were included.



Now what about - I think patients with defibrillators and pacemakers, that resource use was accounted for, I believe, in atrial fibrillation, but what about, like, valve surgery? I mean, it just seemed like - how were the different types of resources associated to coronary artery disease versus others that were not included?

Kevin Dollard: Well we had an iterative process whereby we - in consultation with the - our clinical workgroup as well as accessing the test data that we were working with, the work group we started with - the - broad category - a broad listing of potential diagnostics for conditions - for cardiovascular-related conditions.

And then through an iterative process with our workgroup we first got the - narrowed down that list based on their clinical input to the list of - a specific list of codes that were then (found) to be most relevant for the measure that we were developing.

And then subsequent to that, when we were in the data measurement and testing phase, we would look at - by looking for the types of healthcare events that occurred with - for the population that was identified, then that information would be presented to our clinical workgroup, who would then - so we would look at both things that were - for our clinical - for our patient population codes that had been identified for them that were of - more frequently occurring but had not been on our list of diagnostic codes.

And so the clinical workgroup then had opportunities to look at - to see if there were additional codes that were occurring for this population that they wanted, then to subsequently include in the measure specification. So that was sort of the iterative process - first an iterative process around selecting the codes themselves and then working with the workgroup based on the testing that was done.

Mary Shaffran: Okay. Yes so then you included a few codes that we might have missed the first time or didn't include pretty low volumes ones I guess. Okay.

Kevin Dollard: That's correct.

Mary Shaffran: Okay.

Ashlie Wilbon: So Mary, just a quick time check. We've got about five or seven minutes left for this measure. So I don't know if you want to - if you've already talked about reliability and validity testing and some of the other subcriteria (factors).

Mary Shaffran: I mean it - yes it's pretty much the same as the other measures that we've reviewed. You know, they - well let me just talk about - okay so risk adjustment real quickly. They used the HCC risk adjustment methodology, but again there - it looked like there were several different models that were looked at. And I think that we would have the same comments for this measure as for the other measures.

In terms of the reliability and validity testing, it was I think similar as the other measures. They used the market scan commercial payer data set to test the measure. I guess in the - my question on that - I mean, it looked like - I mean, there's some reports showing the results of that testing, but I guess I'm unclear about - was that the only data set used to test the measure? Did you compare those results to using another data set?

Male: So - as with our other measures, the - that was the data set that we were able to use for - with the resources available. We are now in the process of field testing more broadly, but that - consistent with other measures, that is our dataset.

Mary Shaffran: Well did you use two different, like, test it using two different, like...

(Crosstalk)

Mary Shaffran: ...or anything? What?

Male: Kevin do you want to answer that?

Kevin Dollard: With the risk adjustment, there was - the sample was tested with taking that sample and doing a - one to develop and then another portion of the sample was for the testing of it.

Mary Shaffran: Okay. No I was talking more about the calculation of the actual measure, the cost observed to expected ratios. I mean did you look at a sample and then test that against another sample in the data set?

Kevin Dollard: I believe the sampling was - regarding that was mainly around the risk adjustment...

Mary Shaffran: Okay.

Kevin Dollard: ...development.

Mary Shaffran: Okay. So what's our next - what are we on now here?

Ashlie Wilbon: So I was moving the screen down. I think we've already talked about exclusions pretty thoroughly. You've talked about risk adjustment, which talks about - which refers to 2b4.

Female: We're waiting for them to (follow up with us).

Ashlie Wilbon: Right. And the data analysis demonstrates statistically significant and meaningful differences. I believe you discussed that as well. Or maybe not. I'm not sure if you wanted to address that and then we can move in...

Mary Shaffran: Well...

Ashlie Wilbon: ...usability and feasibility?

Mary Shaffran: Yes. I mean that has to do with the actual calculation of the measure and whether or not they are - statistically significant differences can be shown so that, you know, if you're - well let me just talk about - this is - I think this was mentioned before. This is a measure for individual physicians, and so calculation of the score was similar to, I think, one of the other measures that we looked at for this vendor.

So they were looking at trying to attribute two individual physicians if they had evaluation and management claims of 70% or more of the claims. And otherwise, if it would - it might be possible to attribute it to more than one physician if there were 30% for a couple of different physicians.

So the scores at the individual physician level - and it looked like it was one cost score basically. So comparing an individual physician's score to other physicians I guess within the same specialty or - that was a little bit unclear.

Kevin Dollard: Well the types of comparisons that could be done would be the - with the physician and then within the comparisons of the physician with the physician's peer group with - outside of the peer group and then in comparison to sort of an overall.

Mary Shaffran: Yes. So I guess my comment is similar to some of the other people who commented on the last one is that it's a measure and it's a score and it's a - well how can I change it? I mean

there's not any detail behind it. I mean it seems like we need to have it broken out by the different categories of services or something, unless I missed something there. But it looked like it was one value.

So I'm not sure. Maybe we're getting into usability here on that, but how valuable that is.

Sally Turbyville: So Mary (Kay), this is Sally. So, you know, one question is if you think about the interpretation of the score and the statistical findings that they presented, does it appear that it could identify practically or meaningful differences in performance based on the testing that they provided?

And I think they did, in their sample report, include different type of service categories, but I think you're right. I think you started bleed over into usability. But to wrap up 2b5 based on the analysis that they provided, you know, what the TAP's impression is of the ability to interpret the score and whether or not it produces discriminating results.

Dr. Michael O'Toole: Is the - this is (Mike) O'Toole. Is the 70% - so 70% of E&M codes, cost and resources used, are assigned to each of the providers that have at least - so is it the cost associated with those codes? Or just the number of codes?

Thomas Lynn: I don't believe it was the number of codes.

Mary Shaffran: Yes.

Dr. Michael O'Toole: So a code for - okay.

Thomas Lynn: Let me say eligible codes. So relevant ones, not, you know, other subspecialties or other diagnoses that weren't relevant to this measure.

Mary Shaffran: So I guess in - if we're sticking with 2b here, then I guess what we're talking about is the - calculating the score and comparing that score to, you know, differences by different types of groups and whether those are statistically significant. You know, and it, you know, it does.

Ashlie Wilbon: So if everyone is - kind of has an idea of how they would want to rate the measure on these subcriteria, at this point I think we can wrap up scientific acceptability hopefully and move on to the usability and feasibility discussion and figure out if there needs to be - I think (Mary Kay) - Maryann you already addressed some of the items there, but I can pull up the ratings that we had for usability and feasibility for the diabetes Ingenix measure and figure out if those would be applicable or how you'd want to move forward on those subcriteria.

But I think in terms of 2b6 and 2c, like the other measures we discussed, I don't think they require discussion at this point, based on there being administrative data and general issues. So...

Mary Shaffran: Right. The only thing I will mention on the stratification methods, which is 2c, the only stratification again that we're - we discussed a lot when we had our face to face meeting, but it was CHF. So why CHF? Why not some other diseases? I don't quite understand why that one is singled out, because there are others that could be looked at as well. So anyway, I think our same comments would apply there.

Okay. So now we're on to the usability? Is that right? 3a.

Ashlie Wilbon: Yes, yes. Usability and feasibility.

Mary Shaffran: So we're looking at what we rated these as last time?

Ashlie Wilbon: Right. And the ratings for the Ingenix measure in blue - I'm sorry, the ABMS ((inaudible)) are based on the - one of the measures that you rated. And I believe it was 1570. These ratings are based on 1570. But they were pretty consistent across the measures that the other ABMS measures that were evaluated. So I just wanted to bring those up for your review.

Mary Shaffran: Right.

Ashlie Wilbon: And also note that I did distribute the information that ABMS submitted in response to the concerns identified at the in-person meeting. So prior to rating these measures and the measures that we discussed at the in-person meeting, there were instructions in the memo about, you know, reviewing the information to see if what they submitted was sufficient for you to, you know, was sufficient, and you would be able to rerate these criteria.

Mary Shaffran: Okay. So we'll take a look at that...

Ashlie Wilbon: But on the - right. But for now I guess Jephtha maybe you want to lead the group through figuring out if there's any items within usability or feasibility that require a specific discussion?

Jephtha Curtis: You know, I think that probably in the interest of getting to the Ingenix measure, we should probably table that. I would say, from my person opinion of - I think that it's really comparable across all the ABMS measures that - the challenges of usability and feasibility. So I don't - again, as I think Mary said, I don't think there are any differences there.

Ashlie Wilbon: Okay great. That said, can we have (Sherry) or (Tom) Lynn give a brief introduction to the Ingenix measure and we can move into discussion there?

Jephtha Curtis: Ashlie, this is Jephtha. One procedural thing for me is that I'm actually on call tonight.

Ashlie Wilbon: Okay.

Jeptha Curtis: I have a hard end point at five exactly.

Ashlie Wilbon: Okay. That's fine. Thanks for letting me know. We can carry on for you. We're going to try to adjourn at five, but we may run over by a minute or two with a quick wrap-up. But just give me a quick heads up when you head off, and we'll try to wrap up shortly after.

Jeptha Curtis: Okay.

Ashlie Wilbon: Thanks.

Thomas Lynn: This is (Tom) Lynn. The congestive heart failure measure uses a similar methodology compared to the diabetes measure that was discussed at the in-person meeting, and I, you know, I wanted to just again thank everyone for taking the time. I know it's a tremendous amount of time to look at these measures and give us your feedback. We obviously feel that's very valuable and important. And that's all I need to say.

Katherine Reeder: This is (Kay) Reeder. Are you ready for me?

Male: Proceed.

Katherine Reeder: Oh thank you. I don't think we need to linger on the importance of this. Can everyone hear me okay by the way?

Male: Yes.



Katherine Reeder: Okay thank you. And thank you (Tom). I'd like to hear from (Tom) one more time on just a very one-sentence definition, if you would, for clarification on a episode treatment group. What does a complete episode treatment group consist of? Is it a 12-month period?

Thomas Lynn: It is a 12-month period and the claims and dollars associated with treating the standpoint.

Katherine Reeder: Okay thank you. For resource use measure evaluation criteria - I'm on 2a1 and I'm just working through the PDF document. This is a commercial testing document on non-elderly individuals, mostly, that were covered by a poster distribution between 2006 and 2010, according to the document. As far as all the listing in the right-hand column for the specifications, they covered those pretty well.

I was pretty impressed with this document. There was one thing on S11.6 on the benchmarking and comparisons. It appears in the document that all comparisons were made on their own internal benchmarking database. And it - there was a lot of this internal comparison that I would've liked to have seen a little bit more external.

However, getting credit to Ingenix is that they've got some pretty large and sophisticated databases. One of the things along with that is you have your 25 million and then, you know, you separate that out with your four million your 250,000 and your seven million patient populations across the nine healthcare organizations. Are those health care organizations representative of the general population at large? In general?

Thomas Lynn: They're large commercial insurers for the most part. They're large commercial insurers and they are spread out geographically.

Katherine Reeder: Okay great. Well unless anyone else had problems on the 2a.1, I really didn't see a whole lot on there that drew a lot of concern. They've got mutually exclusive data, you've got your

CHF measured, covered at three different levels for your base, your severity level, and then composite measures as well. Any concerns on that, anyone? Anybody? I'm a little lost, looking at my telephone, how long to wait, Ashlie.

Ashlie Wilbon: And one good question might be is if other top members had any questions or issues with how the chronic - the CHF population was identified. So the actual clinical framework or underpinnings of who is identified as CHF.

Katherine Reeder: Right. Did anyone have any questions on that?

Jeptha Curtis: I'm just refamiliarizing myself with it, but...

Katherine Reeder: It's a pretty sophisticated mechanism, and it's got many components and it's tiered between anchor and non-anchor, specific and incidentals, diagnoses. But basically they came in through - with a CHF diagnosis as a primary diagnosis and then procedures or services following in line with that.

Dr. Michael O'Toole: This is (Mike) O'Toole. I'm just looking for it. How does it handle the systolic versus diastolic, whether there's an (ejection) fraction, does it include the cardiomyopathies?

Katherine Reeder: They did not single type of CHF per se.

Thomas Lynn: Can I answer that question? The...

Katherine Reeder: Yes.

Thomas Lynn: We do have a separate episode, so the claims are not included in here for cardiomyopathy. We also have a separate episode for purely diastolic failure. And then if it's a

mix of diastolic and systolic failure, then it groups to the systolic failure group, which is this one that we're discussing. And then the fact that it included diagnostic failure as a severity marker.

Ashlie Wilbon: The - hi this is Ashlie from ((inaudible)). Can you clarify? You said this measure that we're reviewing is the systolic failure measure?

Thomas Lynn: Yes this measure is congestive heart - I'm sorry. This measure is congestive heart failure, of course. It includes systolic failure codes.

Ashlie Wilbon: Oh.

Thomas Lynn: There are some codes that are both systolic and diastolic. They group to this measure. They group to this episode. And then the fact that the episode includes systolic and diastolic failure is reflected in the severity markers.

Katherine Reeder: In the text that's not well delineated (Tom). It is in your Excel file. They're listed in the attachments, but that - you may want to include that in the text of the document - of the measure.

Thomas Lynn: Okay. Very good. Thank you.

Katherine Reeder: I think that would've been very helpful for me, too.

Thomas Lynn: Yes I apologize. Thank you.

Katherine Reeder: Oh no worry. Not an apology.

Kevin Dollard: And I'm sorry. Did you say it does not include the cardiomyopathy diagnosis?

Thomas Lynn: It does not.

Dr. Michael O'Toole: So the...

Katherine Reeder: The cardiomyopathy diagnosis -- correct me if I'm wrong on this one, (Tom) -- is considered a - like an associated condition.

Thomas Lynn: Right.

Katherine Reeder: All right. Okay.

Thomas Lynn: Yes. Primary.

Katherine Reeder: Correct.

Jeptha Curtis: So it wouldn't get you into this but it might be included in the utilization downstream?

Katherine Reeder: Yes. Is that right (Tom)?

Thomas Lynn: I'm sorry; I'm getting confused with my mute button. Yes that's right.

Katherine Reeder: Okay. That's the way I read it too. Anything else for the...

Dr. Michael O'Toole: Well I'll just make one comment with that, you know, and it's kind of the same problem we had locally with the CAD. You know, if someone had a (V) code for a procedure and they had CAD.

And so similarly, we run an algorithm every night looking for patients with a cardiomyopathy diagnosis -- not the hypertrophic but the dilated and the ischemic cardiomyopathies -- and we give them a 428.20 diagnosis, which is the heart failure systolic because you can't rely on the physicians thinking to put in both.

You know, if I'm taking care of patients, if...

Thomas Lynn: So your - you would say that those diagnosis codes should be included as primary for congestive heart failure?

Dr. Michael O'Toole: Yes now again it's - the congestive part is - is it congestive heart failure or is it heart failure, systolic? And so I think what you really have here is heart failure, systolic. They don't necessarily need to be congested. At the time you're looking for people with an ejection fraction less than 40%.

Thomas Lynn: Okay.

Dr. Michael O'Toole: And, you know, if they're compensated, they may not be congested.

Thomas Lynn: Right.

Dr. Michael O'Toole: And I think it just causes problems with how we clinically interpret these. This is a systolic heart failure group.

Thomas Lynn: Right. It's not really - yes.

Dr. Michael O'Toole: So again, you know, you may think of it as just, you know, semantics, but...

Thomas Lynn: No. I...

Dr. Michael O'Toole: ...but I think it ends up being more than that. So it's - that's what we've tried to do locally is to give it - everyone a heart failure systolic, a heart failure diastolic or a heart failure systolic plus diastolic, although we do the same thing. If you've got systolic and diastolic you're included in the systolic group.

And by and large, you know, we require that you've had at least one ejection fraction measured by some methodology that is less than 40% in order to make that, although that becomes, you know, that involves critical data and becomes more problematic.

Thomas Lynn: Right.

Dr. Michael O'Toole: Because people use the CHF code indiscriminately.

Katherine Reeder: I did not see a requirement anywhere on the ejection fraction.

Thomas Lynn: Yes it's not available in the claims and this only uses claims. That is an excellent point. You know, one of my - and I think most of the folks would share, you know, if - one of the most important things to sort of gather from clinical data would be that ejection fraction would be very helpful to us.

Katherine Reeder: Yes. And maybe reconsider the title of the measure.

Thomas Lynn: Yes.

Jeptha Curtis: (Tom) it's Jephtha. So in terms of how you guys view this, you mentioned that this is part of kind of a suite of heart failure measures, one for cardiomyopathy, one for what you're thinking of

as systolic heart failure and one that you would think of - or consider as diastolic. And do you ever roll all those up into a mega measure?

Thomas Lynn: One of the reasons that, you know, we continue to have this, you know, the - this is a part of a grouper that groups around all diseases. And we - and that is part of why we sort of divide up diastolic/systolic -- which is a better name, I totally agree -- and cardiomyopathy.

And then if our users want to look at them separately, that's easy to do, obviously. And if they want to group them together, that's easier than if we had grouped them together then have them - pull them apart. So that's sort of our philosophy there.

Jeptha Curtis: Okay.

Dr. Michael O'Toole: So the challenge is now every little old lady who has a little leg edema who gets a nonspecific diagnosis of heart - of congestive heart failure is given a diuretic and would get included in this group, even though she or he may not necessarily have systolic heart failure. So I guess I'm just making kind of the push of - you know, it'd really be nice to know what is the relative resource used for patients with kind of documented systolic heart failure.

Thomas Lynn: Yes. And I, you know, I would totally second that. I mean I, you know, feel like that would be important information for us to have. We just don't have it.

Jeptha Curtis: So within the constraints of administrative data, you've tried to create something that gets towards that, recognizing it may not be completely there?

Thomas Lynn: Right.

Dr. Michael O'Toole: But have you considered just using, you know, if someone has put down a code for heart failure systolic -- and I'm just looking at them here -- so the - a 428.2, a 428.4 or - I think they're 420s, the cardiomyopathy ones. Not the hypertrophic but the ischemic and the dilated cardiomyopathy.

Thomas Lynn: I'm not sure I understood the question. People who had...

Dr. Michael O'Toole: So if your intent is to look at patients with systolic heart failure, I'm suggesting one way of doing it is restricting the codes to the codes that, clinically, we would use if someone had systolic heart failure.

Thomas Lynn: I see what you're saying. So...

Dr. Michael O'Toole: And those codes are, you know, 428.2, heart failure systolic, 428.4, the heart failure systolic and diastolic, and the cardiomyopathy codes for ischemic and dilated. And...

Thomas Lynn: Right.

Dr. Michael O'Toole: ...not...

(Crosstalk)

Thomas Lynn: Not using the generic codes.

Dr. Michael O'Toole: And not using the general left heart failure or, you know, not using - there's a cardiomyopathy for amyloid and a cardiomyopathy for hypertrophic. And - not using those. But if you use the - there's an idiopathic dilated, which is 425. 4 and the ischemic is 414.8. And you



have to - so just those two out of the cardiomyopathy ones. And so you'd be not using the restrictive hypertrophic amyloid. I think there's an alcoholic one.

Thomas Lynn: Right.

Dr. Michael O'Toole: And not using the generic heart failure codes. There's one for left heart failure, there's one for congestive heart failure.

Katherine Reeder: And this is (Kay). I don't mean to interrupt, but I want to interrupt because I don't think they are using all those codes. When I look at the list of codes that they're using, it's all - it's what you said originally, Dr. (O'Toole). It's not all the left-sided alcoholic or any of those extraneous ones that would steer them away from systemic heart failure. I'm looking at the Excel spreadsheet listing.

Thomas Lynn: Yes - so he's - we're not - he's - you're right, we're not using the cardiomyopathy ones, but he told us that he suggested we exclude it. But we're not using the ones that he had suggested we include, and we are using the generic ones that he is discussing.

Katherine Reeder: Okay.

Thomas Lynn: The 428 and the 428.0 and the 428.1.

Katherine Reeder: Right.

Jeptha Curtis: So I think we've covered some of the concerns that you might have about capturing a coherent group of people. But - so do you think we can move on to the risk adjustment or go quickly as we can through the remainders of the scientific acceptability?

Katherine Reeder: Okay. They've done a lot of testing. Face validity. They've done quite a lot of content validity testing with their large databases. Looks like they've done some bootstrapping, they've done the observed and expected ratios along with quite a bit of regression analyses.

I didn't find a whole lot of concern in that area except for what we've already talked about before with disparities. And then with this particular document, there was a broad range of clinical context for measurement, and I didn't know how well that would fit.

It seems like when we were in - at the in-person session, there was some discussion about the - measuring including nursing homes, custodial care and hospice and how that would fit in with the quality measures because of the level of care and possibly - could possibly, by choice, non-treatment or non-resource use, if you will.

And I don't know if that needs to be a concern here today or not with the more palliative care environments. Does anyone have a comment on that? On the inclusion of these different contexts of care?

Jeptha Curtis: You're raising a good point. I think it's one that we did discuss in D.C. I guess I don't see it being different than what we discussed vis-à-vis this measure versus diabetes.

Katherine Reeder: Right. Okay. And as far as the risk adjustment, they do have good severity markers and have a good description of how they derived those. They've got four levels of severity for stratification and weight by gender and age. They basically have divided their testing populations under 65 and 65 and older. They don't have any other cutoffs on the adult population per se, as far as upper age limits or anything like that, which I was happy to see.

Ashlie Wilbon: Hi. (Kay) I just want to - just take a - do a quick time check. It's 4:57 via my clock on my computer, and I just want to be mindful of the time. I know Jephtha has to do a hard stop in three minutes.

So I think we've gotten through most of the scientific acceptability, but we do need to do a quick public comment and then I had a few - just a couple things on wrap-up that I wanted to follow up with, and then I don't know if Jephtha you wanted to do a couple words before we closed out.

But can I just call (Gwen), the operator, really quickly to see - is there anyone dialed into the participant line?

Operator: We do.

Ashlie Wilbon: Okay. Can you queue - give them the instructions to queue up for comment please?

Operator: Yes. It is star 1 if you do have a question or a comment at this time. Once again that is star 1. And no questions at this time.

Ashlie Wilbon: Okay thank you. So Jephtha do you want to maybe just wrap up or figure out do we need to carry over this - the last part of this discussion to the call on July 14? Or how would you guys like to proceed?

Jephtha Curtis: I'm a little conflicted. You know, I feel like - that we haven't formally gone through every segment of it. I again don't know how different any of the conclusions would be from the other Ingenix measure that we've gone through, but - so again I don't have the right answer on this. I would sort of defer to the group to think on that.

Well let me put it this way: does anyone on the call from the TAP have concerns that they could - they - that we need to continue on this particular measure on the next call?

Katherine Reeder: As the discussion leader and probably the person who reviewed this pretty in-depth, I do not have any further concerns about it. I rated it in some of the areas on usability and feasibility higher than I did the previous one in D.C.

Ashlie Wilbon: That said, everyone does actually have to rate the measure. So if everyone feels comfortable with what they've heard and perhaps their own review with rating the measure going forward, then I think we can bypass discussion on the next call and begin with the three measures that we have slated for that call.

So it's based on your comfort level as well and feeling like, you know, there's doesn't need to be any discussion on - anymore on the remaining items.

(Crosstalk)

Ashlie Wilbon: ...scientific acceptability.

Jeptha Curtis: Why don't we assume then that we've completed adequate review and - but I want to have the opportunity for the other TAP members to e-mail offline if they feel uncomfortable with that decision. Is that reasonable?

Ashlie Wilbon: Okay. Yes that's reasonable. Absolutely. Okay that said, I just wanted to do a quick - Jeptha if you have to jump off, that's great. I just have one slide or just a quick reminder that I did send out a memo today with instructions on how to submit your final ratings for these measures as well as the measures.

There's four measures that we need your final ratings on that we discussed at the in-person meeting, and these three measures, by June 15, which is a week from today. We would like to get these ratings passed on to the steering committee for them to discuss at the end of the month at their June 29/30 in-person meeting.

So you have what you need at this point, so we'll be sending a reminder out early next week to - for you guys to get those in. We do have another call on the 14, and that hopefully will get through the three remaining measures at that time.

So thanks again to everyone who joined us, developers included. And if you have any questions or concerns, feel free to e-mail us offline, and we'll try to get to everyone's concerns at that point.

Katherine Reeder: Ashlie?

Ashlie Wilbon: Yes.

Katherine Reeder: Is that July 14?

Ashlie Wilbon: Yes.

Katherine Reeder: Yes. Okay.

Ashlie Wilbon: So I think that's it. And thank you everyone for your time today.

Thomas Lynn: Thank you.

Female: Thank you.

Thomas Lynn: Bye-bye.

Ashlie Wilbon: Take care.

Operator: Thanks everyone. That does conclude today's conference. We thank you for your participation.

END