

**FDA Virtual Town Hall Series –
Immediately in Effect Guidance on
Coronavirus (COVID-19) Diagnostic Tests Moderator: Irene Aihie
December 9, 2020
12:15 pm ET**

Coordinator: Welcome and thank you for standing by. At this time all participants are on listen-only mode until our question-and-answer session. At that time if you would like to ask a question please press Star then 1. Today's conference is being recorded. If you have any objections you may disconnect at this time. And now I'd like to turn the meeting over to Ms. Irene Aihie. You may begin.

Irene Aihie: Thank you hello. I'm Irene Aihie of CDRH's Office of Communications and Education. Welcome to the FDA's 36th in a series of virtual town hall meetings to help answer technical questions about the development and validation of tests for SARS-CoV-2 during the public health emergency.

Today Timothy Stenzel, Director of the Office of In Vitro Diagnostics and Radiological Health in the Office of Product Evaluation and Quality and Toby Lowe, Associate Director of the Office of In Vitro Diagnostics and Radiological Health both from CDRH will provide a brief update.

Following opening remarks we will open the line for your questions related to today's discussion. Please remember that we are not able to respond to questions about specific submissions that might be under review. Now I give you Timothy.

Dr. Timothy Stenzel: Welcome everyone and we're so glad you could join us again today. And as always our desire is to do our best from the FDA's perspective to provide clear recommendations and information that you can use to further development of from COVID-19 tests and to continue our mission during this pandemic to speed access to as much accurate testing as possible.

Since I last mentioned that we had organized a further surge of resources into the COVID applications, we continue to see success with that surge and see an increasing pace of decisions.

So I did want to highlight this week that since last week there have been several additions to our authorization including more pooling authorizations that are especially useful we believe in trying to identify asymptomatic positive patients.

When the prevalence of disease is low in a population such as a routinely screened population which is congregant settings or universities and workplaces, colleges, other educational institutions, we expect that once a regular screening program is initiated that you will hopefully rapidly see a decline in positives making pooling a very efficient way, efficient use of resources.

Please note all the caveats in our authorizations about the use of pooling. And of course if the pooling scheme has not yet been authorized for an asymptomatic screening we do clearly state on the FDA Web site and we're supported by both the CDC and the CMS that you can use the tests that off label as long as there is no specific limitation about the use, very specific use limitations to very rare perhaps authorizations about the limitations to only symptomatic patients.

We also saw more home collection kits authorized and of note the first home collection for a panel test that involves both SARS-CoV-2 and flu detection. And of course we signal with that authorization our continued desire to see panel testing in all forms that are supported by data.

We authorized another rapid antigen test. We also authorized more serology tests. And so it has been a busy - another busy week.

We - and want to remind everyone of our current highest priorities. This is - this - the priorities in two ways, one for review but also in seeking development of these tests from the development community. so that obviously they really haven't changed recently and so they are again point of care tests, home collection kits from home testing opportunities, panels and extremely high throughput systems that allow the most efficient testing of large volumes of samples.

And so that concludes my introductory remarks today and I look forward to our dialogue. And we can open it up for questions. Thank you.

Coordinator: Thank you. We will now begin our question and answer session. If you'd like to ask a question over the phone please press Star then 1 and record your name clearly when prompted. If you need to withdraw your question you may do so by pressing Star then 2. Our first question comes from Randy True. Your line is now open.

Randy True: Hi there Dr. Stenzel. Thank you for doing these town halls. They are very useful.

I have a question about establishing a primer set for LAMP. They - I've - I'm with a public benefit corporation called FloodLAMP and we are developing a

colorimetric LAMP-based assay that has a ultracheap front end and then goes into the colorimetric LAMP.

And we're coordinating with other test developers who also want to open source our test to provide very low cost scalable options for essentially exactly the scenario that you described above in terms of the screening of - repeated screening of asymptomatic population.

So to pursue these together it's going to be very efficient to consolidate on primer set. And for - if we establish a primer set and give a general letter of reference that the CDC did for their primary sets for PCR then it's my understanding we wouldn't - each of us individually wouldn't have to repeat certain aspects of the validation.

And I just want to understand that dynamic a bit more in terms of the inclusivity in silico analysis and the in silico cross-reactivity and the wet cross-reactivity. Can you sort of speak to that and give us some sort of guidance as we coordinate on this?

Dr. Timothy Stenzel: Yes that's - we've seen that as a pathway that could be very successful. Of course the Yale saliva direct was the first to get authorization and we see a lot of interest in this sort of open source.

As far as, you know, the data related to test performance yes that can be leveraged in a different - you know, in multiple ways. The two main ways are that if you seek your own authorization for the test you can give a right of reference for anyone else who wants to copy your test. That wouldn't eliminate the requirement for them to if they're a kit developer say for them to come in to get their own authorization. And it wouldn't extend the umbrella of an EUA authorization to any lab that might copy that method.

So looking at the saliva direct model they have in their original submission and any amendments -- and I have to check what amendments they have to date -- they have an instruction for use that is the sole basis so to speak of the kit. And they point to off-the-shelf product that users can purchase.

In the case of primers and probes for their tests - Toby you can correct me but I think it's the CDC's. And they can get that from vendors that produce primary probes under that CDC authorization. So those are very specific catalog numbers and those are primers and probes that we previously authorized.

So again there's these two different pathways. I want to lay them out very clearly. You can get your own individual authorization for a kit. You can then give anybody, any other developer the right of reference to that and they can copy it and they can pretty much link up and use the data in your submission. There are some elements that if they were to be changed that we'd want to see. But if they are using the same suppliers for everything - and the same catalog numbers for everything that you're using then that makes it very easy. Or the other way is to have this method authorized as we did for saliva direct and then you - we would envision giving you or any other sponsors the same sort of flexibility that Yale is actually the one that designates which lab can use their method and are therefore covered by their EUA.

And they have commitments to the FDA on what is required in making that determination of designation. And my understanding is they've designated quite a few labs already. And I would refer you to them if anybody wants to know those numbers but it appears to be a very highly successful program. So hopefully I've...

Randy True: They've been...

Dr. Timothy Stenzel: ...addressed the questions and...

Randy True: ...yes, they've been our inspiration for this modality and effort. And I guess just one quick follow-up question.

So if we get authorization for a test with a certain license or activation buffer and a certain purification like we're pursuing an ultracheap class mill purification and but we're working with another test developer who is seeking authorization for a mag B based purification it would be highly amenable to automation.

And so if we consolidated on the same primer set and LAMP master mix then would they need to - they wouldn't - it's my understanding they would need to repeat the upfront parts, but with respect to the interfering substances would they need to repeat that?

And then if we gave them a general right of reference and they would end up getting their own EUA that they could control the designations on as well. And then we would have our - and we would have our own independent EUA that we control the designations on even though we granted a right of reference. Is that how it would work?

Dr. Timothy Stenzel: At a high level you're close.

Randy True: Okay.

Dr. Timothy Stenzel: But the devil's sometimes in the detail. There are certain alterations to a test that we may require additional validation. So if they're adding something

new that you didn't do say then we would want to evaluate the data around that change. And then you absolutely developers can give each other right of references as they so wish.

They can specify what right they have or among their - from their entire EUA. They can have limitation or they can open them up entirely. But you can cross - basically cross reference each other's assays to the extent that you want. And there would absolutely be synergy.

And if the components are all the same that they use for the core test then there would absolutely be synergy on reducing any sort of duplication that wouldn't - that isn't, you know, recommended because the tests are basically the same in those functions.

Okay? So I look forward...

Randy True: Okay (unintelligible).

((Crosstalk))

Dr. Timothy Stenzel: ...to hearing more about your development. Thank you so much.

Randy True: Yes thank you very much.

Coordinator: Thank you. Our next question comes from Shannon Clark. You're line is now open.

Shannon Clark: Hello. This is Shannon Clark with UserWise Consulting, a question about point-of-care use of antibody test kits. The Sure Tech Antibody Test Kit has authorization for fingerstick whole blood specimens only for point-of-care

use. This has led to a perception that venous draw whole blood cannot be used at point of care. Does the agency agree with UserWise that this is not true, point-of-care has the resources and capability for both fingerstick and venous draw whole blood, but not plasma and serum?

Dr. Timothy Stenzel: That would be correct. There are point-of-care assays. Obviously say physician offices can draw a whole blood, and those offices are permitted to use whole blood in a point-of-care assay, yes absolutely.

Yes it's a little - to add a synergy step for plasma or serum that would be in all likelihood something different. Although there are developers who are going to look at, you know, devices that might be able to use point-of-care but in general they're not - these facilities are not trained in using nitro fuses and maintaining them okay? So hopefully that clarifies that.

Coordinator: Thank you. As a reminder if you'd like to ask a question please press Star then 1. Please limit to all questions just one question per caller. Our next question comes from (Wendy Stragan). Your line is now open.

(Wendy Stragan): I have a question about retrospective studies that are done for a rapid antigen test. The template says that there should be 20% low positives. I wanted to know how high the CT values should be. And also the template says there should be five fresh samples for retrospective studies done. Do you still recommend that if the retrospective study uses dry fresh swabs not in VTM but have been frozen?

Dr. Timothy Stenzel: Well the challenge is on that last question if you freeze the swabs then we've only evaluated data premarket on frozen swabs. And then we wouldn't wanted to require users to freeze those swabs. Most point-of-care sites don't have freezers to do that and obviously it would be very impractical.

So yes we are recommending a minimum of five positives of fresh samples as the device is intended to be used. And we are providing a huge amount of flexibility in allowing the completion of the fresh sample studies post market if everything up to that point where we can make authorization decisions looks good. So hopefully that explains our thinking around that.

For example, I'll just go a bit further. We have seen some potential evidence that freeze thaw may make more target available for some assays. And so that could actually improve your performance due to a freeze.

Coordinator: Thank you. And our next question comes from Griffin Soriano. Your line is now open.

Griffin Soriano: Hi there. Good afternoon. Thank you for taking my question. Yesterday at a press conference President Trump indicated there would be tests coming in a very short period of time which won't necessarily need doctors to do the test. I was just wondering if you guys have any color on that?

Does that mean more tests that don't require healthcare professionals to administer the test like we already have or is he referring to true over-the-counter tests for COVID-19?

Dr. Timothy Stenzel: Can you state your affiliation please?

Griffin Soriano: Sure, William Blair.

Dr. Timothy Stenzel: Oh, investor, okay. So just on this, you know, something that I've been highlighting on calls and other situations and we've provided so-called OTC over-the-counter or direct to consumer recommendations for validation. To

my knowledge we have not authorized one, although I have to check always on everything minute to minute.

But we're entirely open to a SARS-test, a COVID test that does not require a prescription. And so I want to thank you for the opportunity to reiterate that.

We do - if you look at our template, require a little bit higher performance when a physician or a clinician, a healthcare worker is not involved in the loop on testing. And that's because the consumer, the patient at home don't have the benefit of running the test results by their clinician to make sure that they are making the best possible interpretation of the findings and how it impacts their health or other people's health. So thank you again for that question.

Coordinator: Thank you. Our next question comes from Christie Bergerson. Your line is now open.

Christie Bergerson: Hi Tim and Toby. So this is Christie Bergerson. I'm from Exponent and I wanted to ask a couple questions about artificial intelligence needs for the COVID-19 assays. So we're planning to use a support vector machine to help classify our assay results both either positive or negative.

And we were looking through the template and we noticed some language. We were wondering what extent of the software validation would be required? Like do you want to see all the typical co-documentation like the testing analysis, requirements specifications, design specifications, the full validation suite?

Also if we are planning to have each end user calibrate the AI algorithm to their instrument, would we include the calibration set in a change plan like the

software as a medical device pre-specification or the algorithm change protocols? The molecular template is what has us wondering. It says that the software should be validated as free of defects. And that phrase caught our attention because the software medical device guidance acknowledges that no software can truly be free of defects so we're wondering how in-depth the software validation is expected to be?

Dr. Timothy Stenzel: Yes and again and this - the application you're looking at is a molecular point of care or home use? What was it? I missed that part. Can you repeat? I'm not sure if they...

Coordinator: I'm sorry if you can - her line is closed.

((Crosstalk))

Coordinator: If you can press Star then 1.

Dr. Timothy Stenzel: Okay no that's okay. I will attempt to...

Coordinator: Okay.

Dr. Timothy Stenzel: ...answer in general. So for EUAs whenever software is involved they are typically not asking for the extensive software documentation that we would for a full authorization. And we instead want developers to focus on the most critical components prior to authorization. And that will somewhat be in dialogue with the review staff when they know about the details.

And so that is - our intent is to at launch have no obvious errors in the software that can lead to false or inaccurate results. So it is going to be a much lower bar for EUAs. And exactly what that - the recommendations are from

the FDA is somewhat dependent on the exact software and it's intended use and its point acquired use.

So thanks for the question. I think it's, you know, important then to not to necessarily delay a submission and go overboard on software validation but engage early and often or at least early with the FDA on your particular device. Thank you.

Coordinator: Thank you. Our next question comes from (Michael Trigeos). Your line is now open. Check your mute feature (Michael). Your line is now open.

Due to no response we'll move to the next question. It comes from (Susan Sharp). Your line is now open.

(Susan Sharp): Thank you for the opportunity to ask a question Tim and Toby. This is just a quick question on saliva collection devices.

If there is a collection device or two for saliva that's out there - it's not specifically for COVID. It could be for any kind of genetic testing, paternity testing, et cetera, is there a need then just to - if register the device with the FDA and that any EUA that has been approved for saliva that collection device can be used?

Dr. Timothy Stenzel: The best short answer is to say no but to provide some more color to that. And Toby is this something that you want to handle today an area that you've been focusing on or you

((Crosstalk))

Toby Lowe: Yes I think I didn't fully follow the question. But if you're asking whether you only need to register and list or whether there are other requirements, there generally are other requirements especially for saliva collection devices for RNA preservation. Those typically do need FDA authorization either in the form of clearance or approval or an EUA. And once...

((Crosstalk))

(Susan Sharp): Just to follow-up...

Toby Lowe: Yes go ahead.

(Susan Sharp): Just a follow-up if it's just an empty tube, there's no preservative or anything in it, it would just be like suit fitting into an empty tube with no coatings no preservatives, no UTM or anything?

Toby Lowe: So if you're - if you are a test developer and you're including in your test instructions that sample collection is done with an empty tube, just a commercially available sterile tube that is not made - the tube is not making any claims or the developer of the tube is not making any claims about RNA preservation then you as the test developer would be taking responsibility for that being a component of your test.

On the other hand if you are a manufacturer of sterile tubes and you want to market those sterile tubes for saliva collection with RNA preservation even if it is a completely empty tube, then we would expect to see some performance demonstrated with a representative assay. And we would expect that tube to follow the regulatory requirements for an RNA preservation saliva collection device.

Dr. Timothy Stenzel: And it goes beyond just preservation any claim about saliva for our SARS-CoV-2 would for someone who manufacturer's collection kit and distributes it would require a review by the FDA.

Toby Lowe: Right yes.

Coordinator: Thank you. And our next question...

Toby Lowe: And I think I made a comment on the call last week indicating that, you know, making it clear that that if you're making claims about SARS-CoV-2 that you would be need to have authorization. And I think there was some confusion that if you're not making claims specifically about SARS-CoV-2 that you wouldn't - but that's not actually that was not the point that I was trying to make I think I was not very clear because even if you are just making RNA, you know, just saliva collection device claim not tied to SARS-CoV-2 you'd also still have regulatory requirements.

Coordinator: Thank you. And our next question comes from (Lubna). Your line is now open.

(Lubna): Hi Tim, hi Toby. Thanks for taking the call. My question is regarding the performance feature that is required in order to obtain an OTC non-prescribed indication versus an Rx non-lab use claimed indication.

Is it the asymptomatic subject NPA of 99% that is the reason that the current non-lab use tests are prescription use only? Is that the key performance discriminator that seems to be holding up true OTC?

Dr. Timothy Stenzel: So that's an important question. The short answer is no. The, you know, template recommendations are just that, recommendations.

On specificity of the home test we would entertain a lower specificity depending on other mitigations which maybe labeling and training -- things like that. So is not again the recommendations and templates are just that and it is not something that is holding up authorization of any OTC devices.

(Lubna): Great. And just one subsequent question. I'm very sorry. I tried to get on, a couple of calls I didn't get on. Most of the multiplex products that are authorized seem to take existing cleared products and add on SARS-CoV-2. Are you guys open to receiving a test that is not an already cleared multiplex test that has multiple analytes like SARS-CoV-2 and RSV for EUA authorization?

And my assumption there is, is that for the non-SARS-CoV-2 analytes that are in that test you would still need to introduce validation like clinical sample sizes that are equivalent to what you would have included in a cleared 510(k) level product. Is that a good assumption or...

Dr. Timothy Stenzel: You're about 50% right. First of all absolutely we are welcoming any new panels that haven't been seen by us before as long as they have SARS-CoV-2 on it. We - because they're say for flu or RSV, there are current full authorized tests for those targets.

We are asking for somebody who has not already gotten a panel authorized by the FDA, full authorization by the FDA and then they're adding SARS-CoV-2 to it, if someone's coming with an entirely new panel, maybe they're adding a panel to their previous SARS-CoV-2 test EUA, we want to see a little bit more data about those non-SARS-CoV-2 targets.

And typically it has been the case where we have post-market commitments after EUA authorization to do additional studies on those target - on those non-SARS-CoV-2 targets in order to bring it up more in line with full authorization and enable an easier full authorization of those panels.

So we want to provide assurances to everyone that the targets are working for those that have other full authorization. At the same time we want to make - be as least burdensome as possible and at least in the pre-market up to authorization decision.

Toby Lowe: And I would add to that the currently posted template for molecular tests does include that breakdown of what we would be looking for for tests that are adding SARS-CoV-2 to a previously cleared respiratory panel as well as what we would expect for multi-analyte respiratory panels that are not previously cleared. And I believe we have authorized both types so far.

Dr. Timothy Stenzel: Thank you Toby and correct and yes that just signals our very much willingness and encouragement of new panels. Thank you.

Coordinator: Thank you. And our next question comes from Dr. Steve Kleiboeker. Your line is now open.

Dr. Steven Kleiboeker: Yes thanks. Steve Kleiboeker from Eurofin and Viracor and Clinical Enterprises Laboratories. And we have an EUA for at-home testing and we have concerns that as the EUA is drafted we - there is some limitation in the channels that we can distribute through. And these channels would allow us to reach many additional people.

So we think that clarifications needed are consistent with safety concerns and the intent of the EUA. And our question is what is the most efficient way to obtain the clarifications or if necessary the modifications to our EUA?

Dr. Timothy Stenzel: So if you're adding - asking about adding additional distributors?

Dr. Steven Kleiboeker: Correct to our channels really, yes channels.

Dr. Timothy Stenzel: What do you mean by channels different than distributors?

Dr. Steven Kleiboeker: So pharmacies.

Dr. Timothy Stenzel: Oh.

Dr. Steven Kleiboeker: For example...

Dr. Timothy Stenzel: Yes.

Dr. Steven Kleiboeker: ...yes brick-and-mortar pharmacies.

Dr. Timothy Stenzel: That would of course depend on your authorization. If you're a point of care device that can be - that's been deemed CLIA waived there's going to be no issue with distributing to pharmacies. I - Toby do you know if we ask specifically about that or require that?

So if you're being asked or being limited in some way by a member of our office or if you want further clarification, this is a specific enough question that I suggest you send it to our email address and ask for Toby and me and one of us will...

Dr. Steven Kleiboeker: Okay. Yes we've done that but I will re-forward. Thank you.

Toby Lowe: Yes did you say that you have an already authorized test?

Dr. Steven Kleiboeker: Correct yes.

Toby Lowe: Or you have...

Dr. Steven Kleiboeker: We have an EUA for self-collection. And then it goes to the Eurofins laboratories for the actual testing in the high complexity environments.

Dr. Timothy Stenzel: Oh well yes if it's a high complexity test, pharmacies would not be an appropriate place to...

Dr. Steven Kleiboeker: Yes okay. So those are distribution channels for the kits only. And so if the kits instead of coming from...

Toby Lowe: Just, yes.

Dr. Steven Kleiboeker: ...a Eurofin entity they would come from the pharmacy. Whether they came from the Eurofin's entity or the pharmacy they would go back to a Eurofin's lab for testing. And so we're struggling with understanding...

Toby Lowe: Yes.

Dr. Steven Kleiboeker: ...the requirements for letting them be distributed through the pharmacy.

Toby Lowe: Yes that's something that you would just need to add additional distributors to your EUA. You could do that through your lead reviewer or reach out to the mailbox and we can help facilitate that.

Dr. Steven Kleiboeker: Okay. Thank you.

Coordinator: Thank you. Our next question comes from (Sammy). Your line is now open.

(Sammy): Hi. Thank you so much for taking my question. I have a question following-up on something that was talked about a few weeks ago. The question and it kind of relates to the new at-home template for serology.

If a specimen collection device is used with an LDT does that - I believe Toby in the past said that it needed to be a legally marketed collection device. I just kind of wanted to follow-up on that piece and if so would the collection device then need its own EUA or could it be part of an EUA assay? Thank you.

Toby Lowe: Sure. So for home collection, tests for home collection need to be authorized. They are not considered to be LDTs if they're for home collection. Regarding the specimen collection device correct, it does need to be a legally marketed collection device. And it needs to be legally marketed for the use it is being used for.

So in that case you would need to - if a lab wants to use a collection device for SARS-CoV-2 testing there are not currently any drive-up spot collection devices that are authorized for that use. So they would need to come in either as a test system or the collection device as a standalone collection device. And they would need to take responsibility, regulatory responsibility for that collection device.

Coordinator: Thank you. And our next question comes from (Kimberly Zonker). Your line is now open.

(Kimberly Zonker): Thank you. So my question is very similar and it sounds like you just answered it so I'll just go ahead and verify.

We're currently using an LDT and the spectrum tube which has its own EUA. But it sounds like if we want to use that spectrum tube with home collection we still need an EUA for our LDT with the spectrum tube for home collection. So is that correct?

Toby Lowe: So the spectrum tube by itself is not authorized as a home collection kit. So it is authorized as a standalone collection device but it does not include everything that we would expect to see in a home collection kit which would include, you know, how the kit is distributed, how it's received by the individual -- all of the steps that an individual needs to go through to make sure that they register the kit with the appropriate lab and collect the sample appropriately, package it up for shipping appropriately, get it back to the lab within the right timeframe -- all of those steps. And there's more information on what we look for in the home collection template.

So the spectrum device, the way that it's authorized, it can be used, it can legally be used in a home collection kit. But the home collection kit as a whole does need to be authorized to capture all of those other aspects.

Coordinator: Thank you. And our next question comes from Dr. Jack Maggiore. Your line is now open.

Jack Maggiore: Thank you Dr. Stenzel, Jack Maggiore calling from Loyola University Medical Center. Could you tell us could we anticipate any guidance from the FDA as to how we as laboratorians are expected to assess immune status and those receiving the COVID-19 vaccination regimens such as the period of time after the administration of the final dose to determine serologic response or identifying which antibodies specific for spike or nucleocapsid viral antigen or the expected signal or titer to determine the effectiveness of the vaccine?

Dr. Timothy Stenzel: Yes so of course the Center for Biologics here at the FDA CBER is responsible for a vaccine reviews. They have typically signaled that they are not looking at any sort of diagnostic as part of vaccine approvals here. And but I'd also refer you to them but I believe that it's the thoughts.

Now obviously that's an important research question. We have not authorized anything to date that would directly link to that. We've authorized some neutralizing antibody tests. We've authorized some semi quant test that may aid in the exploration and aid in the research of this question.

You know, we are - the - in the manner in which you can directly support such an indication would be some sort of clinical study that might be fairly involved. And our focus on at least up to date for serology tests is to make available tests that we think are accurate that can be used for the - both the prescribed indications in the IFUs and make that resource available for additional research studies that may lead to additional uses for those tests.

So I know that probably isn't too helpful to you. I, you know, I do know of efforts underway to try to address that question and the FDA would be supportive of at the very least accumulating knowledge around the usefulness of serology tests for this purpose. So again I doubt I really satisfied you in my response but I did want to be transparent to of where we are today.

Coordinator: Thank you. As a reminder...

((Crosstalk))

Coordinator: I'm sorry go ahead.

Dr. Timothy Stenzel: No that's okay. I didn't know if he had a follow-up question. Thank you.

Coordinator: As a reminder if you would like to press - if you would like to ask a question please press Star 1. Our next question comes from Daniel Roth. Your line is now open.

(Daniel Roth): Yes hi Toby and Dr. Stenzel. Thank you for organizing this again. So (Daniel Roth) with (Actimed). We are developing a rapid antigen test meant for home use. And regarding the better performance that is required to have this be without a prescription, so sort of with a prescription or without a prescription what is - what are the differences in performance that you might be considering for giving that designation?

Dr. Timothy Stenzel: So for rapid antigen tests in the home the prescription versus nonprescription, the prescription version can have some limitations. It may have an age limitation that for studies that validation perform say down to a certain age, you know, that the developer didn't at the time go any further down in age.

And then of course we don't for any - for prescription based tests we do not have a recommendation to validate for asymptomatic patients other than if they want to make that specific claim. Then obviously if they want to make

that specific claim that their test is authorized for asymptomatic screening then we would want to see asymptomatic data.

But for every other prescription-based test we do not recommend validation in the asymptomatic population. However if you go to an entirely OTC over-the-counter direct to consumer where there is not a healthcare provider involved, the consumer decides that test is going to be performed on whether it's a symptomatic or an asymptomatic, the consumer gets to - is, you know, is going to be the one interpreting the test results for their situation.

And so it - we look for evidence that that can all be done accurately. And of course in the home situation the consumer decides can do it on even very young individuals and on asymptomatic.

So for OTC claims we are asking for and we're very - the burden is very low here. It's usually a minimum of about ten asymptomatic patients premarket authorization with sometimes additional post-market test, post-market studies.

And then also if it's going to be used OTC in the home, we have to assume it's going to be used on kids. And so we want to see that it performs well in kids and that it's safe to perform in kids. So hopefully that addresses at a high level your questions and with some specificity.

Coordinator: Thank you. And our next question comes from (Kaduni). Your line is now open.

(Kaduni): Good afternoon, thank you for taking my call. We have applied for emergency use authorization applications for serology test six months ago really just we are getting the weekly update that it is a low priority and it is in the list and it is getting - will be looked at as soon as possible.

My question is, is there at all any hope at any time we may see the light at the end of the dark tunnel in terms of getting the serology review assays reviewed because we're not even given a primary reviewer? This is an emergency use authorization application and I think it is because of the limited resources FDA has. So is there at all any hope? If you can tell us I will appreciate. Thank you.

Dr. Timothy Stenzel: Yes so of course we have received literally hundreds of serology, in particular serology lateral flow submissions. And it is a resource limitation situation. With the recent surge as I described at the beginning of the call, we are making significant progress across the office and including the serology decisions.

So we have in the last two weeks made -- let's see if I can do the math 20, 40, it looks to me like about 65 serology decisions in the last two weeks. So that is evidence that we are - the surge is working and we're going to be able to as rapidly as possible with additional resources that we have, we have with the last surge we again doubled our number of people on COVID applications.

And unfortunately for those developers who have non-COVID applications into the agency at least some of them and/or will be submitting non-COVID applications, those applications could be impacted. So it's this balance of how much resources do we put on COVID versus non-COVID when people continue to have other health care problems besides COVID. All right...

(Kaduni): I kind of when I look at the list that is there as of today starting from 415 there are only 61 tests that are authorized serology tests so far. I don't get it if you say last two weeks you had 65 tests. I'm missing something?

Dr. Timothy Stenzel: I'll let you conclude for what that means. Next caller please.

Coordinator: Thank you. And our next question comes from (Wendy Stragan). Your line is now open.

(Wendy Stragan): Thank you. So if retrospective samples are used the template says that 20% should be low positive and I wanted to know how high a CT value you recommend going to?

And I also had a question about for point of care rapid antigen tests is a retrospective study sufficient so long as we also had the five fresh positive samples? And I believe the template says a five to six person study showing that the intended population can use the test?

Dr. Timothy Stenzel: So the five fresh samples - and I apologize to you or whoever else called before about the low positive, the fresh sample doesn't - you may not get - the fresh positive may not be as well distributed as we wanted as far as the testing goes. So you can distribute the bands testing across the recommended number of sites and users. So yes, so and it's five positive fresh, not five overall fresh. We are looking for adequate performance in fresh samples.

And then as far as low positive goes that is going to somewhat depend on your comparator. We do - we take a look at the LOG of that assay and the cut off of that assay to give you comparator specific ranges for low positives. So typically that has been over - CTs of over 30 but there could be specific situations where that advice may be a little bit different. And so I would engage with your primary reviewer or through the templates email box about a specific molecular comparator test and what low positive means for that okay?

Coordinator: Thank you. And our next question comes from (Doug Ross). Your line is now open.

(Doug Ross): Yes hi. My question is in the context of performance testing for direct antigen tests. And the question is whether we do the performance testing in Europe. If we do it there will that be sufficient or do we need US test sites?

And related to that is it necessary that the demographics somewhat mirror the US in that subject population?

Dr. Timothy Stenzel: Again can you tell me the device and deemed CLIA classification you're speaking to?

(Doug Ross): Yes this would be a non-laboratory use, a rapid direct antigen test.

Dr. Timothy Stenzel: A point of care.

(Doug Ross): Yes.

Dr. Timothy Stenzel: A point of care study. So we want the instructions, the rapid instructions that are provided to the consumer or to the point of care to be tested in both English and Spanish. Typically we allow that sort of study to be entirely outside the US. Where possible we would love to see US-based testing.

We also are encouraging where possible to include the pediatric population in good age range. However, you know, we don't think currently that there is a difference between kids and adults. It's just if it is possible, we encourage that it's not something that will result in a denial premarket. So in short yes, you can perform that testing outside the US.

(Doug Ross): Okay. And just to clarify so...

Toby Lowe: This is Toby...

((Crosstalk))

(Doug Ross): ...it's not just the human factors but it's also the clinical the validation that we would be doing?

Dr. Timothy Stenzel: Yes. Toby - and Toby sometimes corrects me or adds color to what I say.

Toby Lowe: Yes I believe - so I know that there's information in the antigen template. And I believe that we do for - sorry I'm not sure if you are talking about a test for point of care or for home use or non-lab use but for point of care where you would be at a CLIA, a site with a CLIA waiver certificate we would expect to see the point of care study done in the US to reflect that setting.

For home use or non-lab use we would expect it to be reflective of US users. And so if it is done - if it is performed outside the US like Tim said we would just - we would expect to see justification for why that is still reflective of US users.

Dr. Timothy Stenzel: That's a great point Toby and I'll just give additional color to that. You know, in Europe the point of care sites and other parts of the world may not be similar to our point of care sites. So we have seen unfortunately "point of care studies" done in high complexity type lab environments and that is not a point of care study.

We're looking at the types of users that would be in the US for point of care type of users that would be home use in the US truly in the home for example

and truly in a point of care type situation with, you know, with non-laboratory physicians and other health practitioners and other primary care office staff type people.

Coordinator: Thank you. That does conclude our question and answer session. And I would like to turn the meeting over to Ms. Irene Aihie.

Irene Aihie: Thank you. This is Irene Aihie. We appreciate your participation and thoughtful questions. Today's presentation and transcript will be made available on the CDRH learn Web page at www.fda.gov/training/cdrhlearn by Tuesday, December 15.

If you have additional questions about today's presentation please email cdrh-eua-templates@fda.hhs.gov.

As always we appreciate your feedback. Following the conclusion of today's presentation please complete a short 13 question survey about your FDA CDRH virtual town hall experience. The survey can be found at www.fda.gov/cdrhWebinar immediately following the conclusion of today's live discussion. Again thank you for participating at this concludes today's discussion.

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