VA Mobile Discussion Series

VA TeleDerm App

VA's Mobile Discussion Series is a monthly webinar featuring a variety of topics focused around app development and mobile health at VA. This discussion covers VA's TeleDerm App. The app allows VA care teams to capture and store digital images and associated clinical data to provide safe, appropriate and cost-effective teledermatology services to Veterans. The app is designed to integrate with current VA consultative store-and-forward teledermatology practices by packaging the necessary tasks for referring clinicians and imagers into one app. VA TeleDerm ensures all members of the health care team have access to up-to-date and accurate records.

Denise Kennedy: Hello everyone, welcome and thank you for attending our VA Mobile Health Discussion Series Webinar. My name is Denise, and I'm going to run through a few brief technical reminders before we begin the discussion today about VA's Mobile Apps for teledermatology. Your phone lines are muted. We will be taking questions through the chat feature, which is available to you at the right of your screen right there in the middle.

If you're experiencing any difficulties, please use the chat and someone will be in touch to offer assistance. To respect everyone's schedules, we'll keep this moving. Today we welcome Dr. Dennis Oh, assistant chief of dermatology at the San Francisco VA Medical Center. As I mentioned before, if you have any questions, please use the chat feature and we will stop the presentation intermittently as well as getting to some of those questions at the end. To download the presentation, please click on the link below the word file at the bottom right of the screen. And with that, I'll turn it over to you, Dr. Oh.

Dr. Dennis Oh: Great. Thank you, Denise and thank you for allowing me to share as part of this discussion series what I think is a pretty exciting development for teledermatology in VA and also for telehealth in general.

So, this is an outline of the presentation today. I want to tell you a little bit about teledermatology as it exists currently in VA and give you an update on what's been happening and how it's practiced. We'll tell you a little bit about the app itself, called VA TeleDerm, why we've decided to create it and what its features are. That will take us through about the first half of the talk and we'll take a little break for questions at that point. Then, I'm going to go screen by screen through the app, so you can see how it looks to each of the targeted key users. That is, referring Providers and Imagers.

Then, we'll finish up with some questions. I think there should be plenty of time for questions. The illustration in this slide is from an early magazine on early 20th century, focused largely on radio then telecommunications. Envisioning a future in which healthcare could be delivered remotely. A lot of things could be said about this picture.

The thing I'll just emphasize is that it is certainly about the patient. Physicians in there have got help too. That's one thing I want to emphasize, that nothing happens without a team of

supporters and people to help the health care process. You will see that not only in the workflow for this app, but I also want to acknowledge it this time.

There are many people who've been involved in making teledermatology a success in VA and, in particularly, who brought these apps to fruition. There are far too many to name, but just know that we're very thankful for all your help and making all of these possible for our patients.

Okay. This is a slide showing the distribution of dermatologists in VA and with the lighter yellow areas showing where there is fewer dermatologists per 100,000 Veterans.

These are VA Dermatology FTE, and then at the darker green you get more dermatologists per 100,000. And, as you can see, there's a fair amount of heterogeneity as you go around the country. This is not too surprising because dermatologists tend to be located in relatively large urban metropolitan areas and not so much in the rural areas.

You'll see a few areas that are white. This is where the VA says it doesn't have any data but, I suspect if it did, those will also be pretty light-yellow showing not very many dermatologists per 100,000.

There's a geographic access problem to dermatology since many patients who are in those yellow areas likely have a hard time seeing a dermatologist because they're just not very many around. There's also a timeliness issue as well because even in those darker green areas where there were a lot of dermatologists, sometimes it's hard for patients to be seen in a timely way just because there's so many more patients in those urban areas.

The premise of dermatology, which has been backed up by some, is that teledermatology can help with both types of access problems. Both geographic access and the timeliness issue. I'm a colleague along with Dr Martin Weinstock in the Connected Care Office of Health Informatics and we oversee the activity of the National VA Teledermatology program. We were charged with doing this about eight years ago when there actually existed that time several fairly mature, very active teledermatology programs around the country, but they were unrelated to each other and comparable to what was happening in the rest of Telehealth. What we wanted, and we were charged with doing, was to create a national program. You might ask why would this be so when there were already some very successful teledermatology programs?

The bottom line is that we wanted to ensure that there was a uniform standard for quality of care so that a Veteran who was cared for by teledermatology in one part of the country could ensure that their experience would be the same regardless of what VA they went to in another part of the country. We wanted to create interoperability between sites so that personnel/equipment/software could be standardized and moved around, shared so that a Veteran's approved practitioner or an Imager at one facility could pretty much go anywhere else and do that same job just the way they had in their previous location.

We wanted to integrate with other priorities in VA. Not just within telehealth, but also within other areas of VA, and we've had that official interaction with specialty care and more recently with the Office of Rural Health to ensure that teledermatology was meeting access needs for our Veterans. We wanted to create a way to learn about the process of telehealth itself so that we could do better in the future. Quality improvement is important.

Then, finally, conduct research so that we can learn something and improve the process as well as do some strategic thinking about the future in terms of what the next steps should be in resource allocation. You'll see a little bit later that the mobile apps that we've developed are certainly a part of all these processes I've just mentioned.

As it exists now, we do have a national program that is established a standardized process for teledermatology. But, I will say that there is some flexibility and we do allow and recognize that not all the eight facilities are the same. Their patients don't always have the same needs, they don't always have the same resources. And so, as it exists now, while there is standardization, there is allowance for individual facilities programs to adopt teledermatology models that work best for them.

What I described for you as the standardized process does allow for some variation from site to site. Having said that, what the Connected Care Office does is provide a common set of what I call rules and tools for doing dermatology. There is an operations manual which governs all of telehealth and there is a teledermatology supplement to that. It guides and indicates what the proper, appropriate and safe practice of teledermatology should be. There is a quality management process.

There's a quality management team that does bi-annual reviews of all the tunnel programs, including teledermatology around the country and they review programs and ensure that they're adhering to the operations manual and the specifications that are set forth in there. There's a common training program and this is principally relevant for Imagers and teledermatology, although there is a component for teledermatology readers as well. There are templates that have been created in CPRS that are to be used for teledermatology and every program in the country uses these right now.

The mobile apps that I'm going to tell you about are really just an additional tool that's part of this suite of a toolbox that we've created for teledermatology and it integrates fully with all of these other tools and rules that we've created. Of course, there's a funding issue as well. We want to make sure that things are funded. I'm not going to talk about that at all, but it's certainly an important part of our overall program.

As it exists right now, teledermatology in VA really follows the hub and spoke model where there is a center of dermatologists. These are often, although not always, sites which have affiliations with academic affiliates and which have a fair number of dermatologists. They then receive referrals from remote sites and other facilities where there aren't very many or any dermatologists.

As you probably know, there are two types of telehealth practiced right now. There are store and forward and clinical video. Store and forward is where consults are placed but aren't necessarily responded to at the same time. They're stored and processed by the consultant later. Then clinical video is basically a live interactive form of telehealth that uses video conferencing type of equipment and a process where patients can be talked to and examined in real time.

Right now, in VA, the overwhelming majority of the activity is store and forward. And that's what I'm going to focus on for the rest of the talk. In fiscal year '17, the most recent fiscal year, there were over 107,000 store and forward teledermatology encounters that served over 100,000 Veterans.

This represented about a 6 percent increase over the previous fiscal year, which was actually a plateauing compared to the previous fiscal year is when there was about 10 to 15 percent increases. So, there's been a leveling off respect, we think. Teledermatology occurs in every single business, but when you look a little bit closer and look at who does teledermatology, only about half of the facilities right now have teledermatology activity. And the ones that do have activity, the majority of them have teledermatology as a relatively minor fraction of their total dermatology activities.

In spite of the fact that I've told you that teledermatology is an effective and emerging tool for giving Veterans access to high quality skin care, we have ways to go to spread the word that that's the case and to get users and facilities to adopt it. The process of teledermatology NBA is a multi-step point. So, I mentioned that there is a team that's involved with this.

As far as the actual patient care is concerned, that's true. It involves primary care providers and Imagers and readers. It starts with a patient and ends with the patient. But along with the way, as you can see in that diagram on the right, the primary care provider or the referring provider, whoever that might be, is the one who actually is responsible for ordering a whole dermatology imaging consult in CPRS.

This then goes to an Imager. The Imager is a telehealth clinical technician or a TCT or can very often be a member of that referring providers pack team, a nurse, for example. And it's the responsibility that Imager to close that imaging consult by taking the history provided by that provider and transcribing it or copying and pasting it into their note if they're allowed to, and then taking photos of the patient's skin, imaging the patient and uploading those into this imaging in association with a reader consult request which they order as well.

Then, those go to the teledermatology reader who is alerted through these and Vista and they can review the history of the case that was provided by that referring provider and the images associated. Then they write the consultant's note and it goes back to the referring provider as they seek to view alert. And it's up to that referring provider to review the recommendations and decide with the patient how to best execute them if appropriate. So, that's the process.

It is a consultative one where the teledermatology reader serves as a consultant. It's up to the referring provider to manage the patient based on the guidance and recommendations from that reader. You'll notice that the Imager has also a key role because they're responsible for transmitting the information from that provider to the reader and the fidelity with which they do that is extremely important, and then of course their response for imaging the patient. This is of relevance for the app that I'm going to be telling you about.

As I've said, we're very proud of the growth of teledermatology and how far it's come in being used to help Veterans access a skincare by dermatologists. But as I said, we have a way to go to get it to where we'd like it to be so that every Veteran and every location has access to this technology and this resource. The reasons why it hasn't been more widely implemented are probably very complex. But, certainly one of the reasons is user adoption.

That is, the people who are most involved with providing the care need to accept this and incorporate it into their daily workflow. And for a variety of reasons, this isn't so easy right now in the current system. One thing that's hard to get around anywhere is that we're asking primary care providers to provide some additional history more than they would normally in a conventional face to face consultative process. They simply can't write. Patient has a rash evaluated by dermatology and Martin. We ask them for some additional history.

How long has the rash been there? What sort of symptoms does the patient have? Are there any medications that might contribute to this? That sort of thing. And it takes a little bit more time. Perhaps, primary care providers are just don't have that time to do that with the current process.

As I've alluded to, Imagers have a very important role in communicating information from the primary care providers to the teledermatology readers and in imaging. And of course, for those of you who are Imagers or familiar with the process, you know that they also have lots of other demands on them in their normal roles either providing care for other things, doing other activities.

So, the time commitment for doing teledermatology can be significant when you're asking them to transcribe history from primary care providers. And then, as I pointed out in the earlier slides, there just are not a whole lot of dermatologists in the VA right now and many of them are occupied with seeing patients in person. So, I want to talk about the technical limitations in CPRS a little bit more.

These principally affect the image involved and, in the current teledermatology process, images are required to transfer manually the history from the engine consult entered by the referring provider into their Imager note. Sometimes this can be done by copying, pasting, but there are some facilities that we're aware of that do not allow copying and pasting.

They must then manually transcribe this. And, as you might imagine, sometimes this isn't done with 100 percent accuracy or fidelity, so that's a problem. Then they must manually take pictures and upload these into this imaging by connecting these to a workstation. Then, very

importantly, they have to then delete these images from the camera because we absolutely do not want late images to be retained on memory cards and cameras in case those cameras should ever be misplaced or lost.

Well, that's a loss of patient privacy and information security. These are some of the limitations with the current process, and the imaging and CPRS. And the app, I'm going to tell you about, we believe has addressed some of these major problems. So that's an overview of what I told is like right now in VA. Let me tell you a little bit about the app and introduce that to you.

The app is called VA TeleDerm. Here's a little icon symbol. This app has been a long time in the making. It's remarkable that I and Dr. Weinstock first brought this idea with what was then the leadership of the office of connected health back in 2012. That was Dr. Kathy Frisbee and Dr. Neil Evans and we were very happy that they thought this might be a good idea to go forward with as a project.

It's taken a long time with several different developers, and we are now in field testing resistance at the beginning of this year. We're glad to be at this position, but it's been a long time in development. So, just to be complete, you've heard me mentioned apps plural, not just one app. In fact, there are in fact two store and forward teledermatology apps that have been developed.

One, which is the focus of this presentation is called VA TeleDerm and its job is to really integrate, recapitulate and streamline the current consultative teledermatology process. We're going to spend the rest of the time talking about that, but I just want you to be aware that there is another app that is a little bit farther behind in development. It's called My TeleDerm for now, although that name may change as we go forward.

Unlike the VA TeleDerm app, which is a consultative app, My TeleDerm is a patient-facing app which allows dermatologists to interact directly with their established dermatology patients at home or wherever those patients might be allowing them to follow up after they've been seen already in clinic.

Our hope is that this app will minimize the need for patients to travel and spend the time traveling to their follow-up appointments. It will increase the reliability with which patients follow up and instead of no showing in clinics. It'll free up clinic space for those patients who really do need to be seen in person and can't be managed remotely.

This app, as I said, is a little bit farther behind the development. We hope will be released at some point soon. It's going to be used in conjunction with Patient Viewer, which will be the means by which dermatologist can order and view the results that come in through the My TeleDerm app. The goal for both of these apps is to ultimately enhance the excess of our Veterans to high quality expert skincare by dermatologist.

The way we envisioned this is that these apps are going to make teledermatology easier for referring clinics, users, providers, Imagers to adopt so that teledermatology become more widely available to patients. In doing so, we know that teledermatology has the potential to expedite skincare and reduce travel for Veterans. We hope this is one of the things we plan to test and that it's going to reduce new and established in-person visits and make those visits timelier.

The VA TeleDerm app is a web-based app. This, as I said, is the main focus of the presentation today. That's designed to integrate and expedite the current teledermatology process. It works best if the users are on the VAs secure Wi-Fi network, which is called Mobile 1SD. We do recognize that there are many users who will probably not have access to this network because they're at a free works or some other site that doesn't have that network and it can still be used by people who have VPN access.

It does work best if you're on the mobile 1SD network. It works well on mobile devices from Apple and, I'm also told, for Android. Then, what I want to tell you, is that this app, as well as the other app I told you, are part of a formal research evaluation that's going to be occurring as they get rolled out.

We were fortunate enough to receive funding from the Office of Research and Development to study both how these apps are being implemented and adopted by sites that they've been rolled out to and to measure their impact on Veterans' access to dermatology appointments and dermatology expertise. That's going to be happening over the next couple of years. The way this is going to be happening is in a step wise manner, I'll talk about that in a minute, and then a randomized matter.

We've selected sites to be included for the initial roll out that have certain characteristics that we think are going to be particularly advantageous for those sites if they use this app. Suffice to say for now, the sites that have been targeted to receive this app initially are ones that are currently doing some but not a lot of teledermatology. Their activity of teledermatology falls below 8 or 9 percent of their total dermatology activity.

They have some experience with teledermatology, but for whatever reason, they haven't expanded that teledermatology activity to be a significant part of their total patient care portfolio. Our hypothesis is that this app may allow them to expand their operations for teledermatology further. This map shows where we plan to roll these apps out over the next over the next year and a half or so. For the VA TeleDerm app, it's those red triangles.

It's about 36 sites and we plan to roll these out in sequences of three months apart. This shows sort of a schematic of that where there will be a time of baseline period where each facility will be introduced to the planning phase of implementing the app. They'll be given a window shown in those green squares of about three months to actually implement the app and get used to it in their normal workflow.

Then, that data will start to be collected from these sites looking at the access of patients to dermatology that had been exposed to the app. It will be compared to all the sites that haven't yet been exposed to the app. Every three months, another six sites will come on board. In order to prepare slides for this app, there are some things that need to be done.

We've already began contacting some sites about some of these prerequisites. One thing that has to be done for every facility before it comes online is that it needs to be able to provide its IP address and port that the app can access. I'll tell you right now, in the field testing business becomes somewhat of an issue because we found that not every IP address works with the app and allows it to upload images into the imaging server.

We don't quite understand this yet and hopefully that problem will be solved by the time this goes for national release. The other thing that needs to be done is that each facility needs to identify somebody who has a MAG System team. This is usually a clinical application coordinator or CAC, although it can be somebody else, and the importance of this is that the app can be configured for each facility to simplify its operation for the users at that facility. I'll talk a little bit about that shortly.

At the individual user level, all the individual users, of course, they need some kind of mobile device that's government issued in order to use the app on iPad or some other tablet. They need the proper credentials and, if they don't have these, these can be obtained from the CAC. Then, as I said before, if they're not at a site which has the mobile 1sd network, they need VPN access enabled. This needs to be done before they can use the app.

Right now, these are the things that we've identified as having to be done before the app gets rolled out to a facility. Some of the sites had been contacted to encourage to obtain iPads and VPN access and, every three months, we plan to contact the next set of facilities to do these tasks as well. That's it for the introduction to the app. I'll take a brief intermission to see if there are any questions that folks have before launching into a screen-by-screen walkthrough with the app itself.

Denise Kennedy: Excellent. So right now, there are no questions in the chat. Just a reminder for everyone if you have any questions, the chat box and we'll be sure we get to them at the end. I think we can continue then. You're right at the halfway point of our allotted time. So, I know there's a lot of screen slides here, but I'm sure that we'll get through them all. Dr. Oh, back to you.

Dr. Dennis Oh: Great. I see one question here, which is asking who is taking the images via the app and that is the role of, for lack of a better term, the Imager. These are already people who have been doing this with off visual digital cameras up until now and they can use the app instead to take images and they've gone through a training process that Connected Care Office as specified and they've been certified as Imagers. They're often telehealth clinical technicians, packed nurses or somebody else has gone through the training.

Let me proceed. We're going to do the screen-by-screen shot. This is the launch page for the app. You can choose to tour the app, which will show you some of the key screens and inform users what sort of information they're going to need to enter and what's going to be transmitted. Or, you can click on the bottom right corner here.

I'll click on the bottom right to log-in. Once you click that, you go into a login screen which will ask for your CPRS access and verify codes. You also need to specify your facility. This is one reason why just not anybody who wants to use this app can do so whenever they want, because this was part of a formal scientific evaluation.

Once you log in using your CPRS credentials, you'll arrive at this screen which will allow you to enter patients' information or navigate throughout the app. Using this menu, I'm going to simulate first being a referring provider or, in both cases, it was going to be a primary care provider or PCP.

If I'm a referring provider, the first task is to choose a patient. In most cases, I would imagine that those providers know which patient they want to write a consult order for because they've just seen them, or they know that this particular patient has a skin issue. They're going to enter that patient's name in the patient search field and then touch the search button. Under the results, they'll see that patient's name and be able to select it.

Once they do, they'll be able to order a consult for that patient. Here is the screen that shows a particular patient and they can order an imaging consult for that patient and they'll be taken to a screen which will allow them to indicate what clinic they're submitting the conflict from.

If there's an existing clinic appointment, they can use that as shown on the radio button on the left or circled in red. They can indicate on your visit if they want to indicate a different location. If the patient doesn't have an existing appointment, they can search for their location using these filters veal circled in blue and touch the search button.

I'll tell you one issue that was identified in the early field testing for this app is the app is only able usually to display 44 items at a time. Only 44 items at a time and in alphabetical order. It's necessary in most cases, I suspect, to search for their particular clinic and then select it from the choices below.

In this case, we're going to pretend we're a primary care provider at my particular facility in San Francisco. And then, the provider will then touch the create new visit button at the bottom of the screen. Then they're taken to this screen which allows them to create the new consult. This has three parts.

There is the part shown on this screen which allows them to indicate the consult service specialty and the provisional diagnosis. Then, circled in green, you don't need to enter a general history. Next to that is another button for the specific skin problem for which they're ordering a consult.

Those are the three sections. We're going to go through those in order. In this screen, I will definitely need to indicate the consult service to which they're writing the consult. In this case, they need to indicate they're ordering a teledermatology imaging consult request and then they also need to show, circled in blue, a provisional diagnosis in some cases.

This one that we've done is field testing varies from facility to facility depending on what that facility's requirements are. In some cases, you have to indicate a provisional diagnosis and in others you don't.

Once they've entered their consult to service information and their provisional diagnosis, they can go to the general history, circled in green, and touch that or just scroll down to that and this will ask some general questions about the patient. Where does the provider work? The Imager to photograph?

What's the chief complaint of the patient? Past medical history of the patient. You'll notice circled in red are a couple of items and those items have asterisks beside them and this is because these items are absolutely required in order for the Imager to submit this consult. Everything else is left to the discretion of the program as to whether they're going to require that information or not.

This is one of those points of variability that we recognize as part of the national program. In some cases, programs that facility has been decided that providers don't have a lot of time. They want to keep the mandatory questions to a minimum and defer asking you the question to an Imager who asks scripted questions based on these templates. Others require primary care providers to provide all the information, and so that's left up to each facility as to whether they do that. But in this case, these questions you are asking are circled in red with the asterisks. Then, you want to enter this history and then they'd go to the problem A. You'll notice that we have review of systems and these are also required questions as a part of the consult and they have asterisks next to them.

Once that information is entered, you have to enter problem A. It's called problem A because it's the first problem. It could also be the only problem. Providers are allowed to enter, I believe, up to 10 problems using this app. Then, they go to problem A which we'll see here in the lower-third of the screen. I'm going to ask where the location of the problem is on the patient. Generalized, is it located just on the face, et cetera? How long has it been there?

Then, going further down the screen, it's going to ask them questions about the duration and whether there's any previous treatment that has been there and whether they've been biopsied. And at the end of this, they're going to be asked to create the consult. So far, the app is actually asking exactly the same types of questions that these providers would have to answer using CPRS. This is going to look very familiar to every provider in teledermatology so far.

Once they click the create or touch the "create" button that's shown in red, they're going to be asked to sign the order. They can review the order in this window indicated by the green arrow and then they sign with their CPRS signature code. Then, it's going to take them back to the dermatology consult screen of the app and indicate that they've created this app.

So, I started this consult and it's now pending and pending status. Simultaneously with this, the app has interacted with Vista and updated CPRS to indicate that there is an imaging consult created as well. You can see that there's a pending imaging consult request in the consult's tablets and you can view the details of this consult in CPRS as well. This is important.

This app interfaces with Vista in CPRS and it's interchangeable with them. So this provider has entered the consult using the app and it's now visible in CPRS and an Imager can process this imaging consult either using an app if they have an iPad and are willing to do so. Or, they could process this consult in CPRS just as they normally do right now with the current system and vice versa.

The primary care provider could have entered this consult in CPRS and not use the app. And the Imager could have to process that same consult entered in CPRS using the app itself. I hope that's clear. So now the primary care provider has done their job and we're now going to play the role in the Imager.

I'm going to log in just as the primary care provider had to and they're going to go to this screen. They may know already the identity of the patient, but they might not. If they don't know the identity of the patient or they want to find out if you have any imaging consults pending, they can go to the menu in the upper left of the app and click on that and touch the notifications option. That will take them to the notifications screen.

This is essentially all the view alerts that the Imager would normally receive in CPRS. They can identify any pending consults. This screen doesn't show any pending consults. The screen capture didn't show any pending consults but, if there were, they would show up. One limitation of the app that I hope will be corrected at some future version is that the Imager can't, at this screen, click on any patient or go to that patient in the app.

Right now, it's information only and they'll have to note the patient's name and then use the search function at the top of the app to search for that patient's name. Once they do that, they can search for their patient and enter that in the search field and select that patient in the results that are shown in the bottom two-thirds of the app screen.

Once they've selected a patient, they'll be able to go to that patient, and they'll be taken to the dermatology consult screen and they'll see that this patient has a pending consult. For reasons of VA policy, the name of the patient has been erased from these image captures. Just know that there would be normally an image and the name of the patient showing at the top of the screen in that dark navy-blue bar, so you'd know that that's the patient you were working on.

You can see there's a pending conflict here just as we saw before that the primary care provider could see and the Imager can click on that pending consults in the app and it looks span and they can review in the box the details of that consult and what is expected of them. When they're ready with the patient to proceed with completing the consult, they can touch the complete consult button, circled in red, and it'll take them to a window that again asks the Imager which clinic they're part of.

They would specify that by entering the clinic in the filter and searching for it and selecting it and creating a new visit. They would then get taken to this screen, which is unique to the Imager. This is where the app then deviates from the primary care provider and the Imager. This is a screen that's unique to the Imager role, but it's going to be very familiar to Imagers who are imaging in teledermatology right now.

It's going to ask them which progress note title they want to use. This is a configurable option using the app, at least it's supposed to be. They can search for that if it's not displayed as a default. Then they're going to need to go through with the patient the process of teledermatology and make sure the patient understands that and indicate a level of understanding. Then they'll sure the patient consents to go through with the teledermatology process, circled in yellow.

Once they click on that yellow button, the app is going to expand the screen for the Imager and ask the Imager to ask a few more questions with the patient in the top half. And this is all part of the normal CPRS template that Imagery is used right now. So they're going to ask the patients some programmatic questions about, what they would do if they didn't have access to teledermatology, how far they'd have to travel to a dermatology clinic, et cetera.

It's going to ask them a few quality of life questions of how they addressed a few quality of life questions of the patient. Then, at the bottom, I want you to note that the history from the primary care provider has been automatically inserted. I'm going to blow that up right now. You'll see that there's a box at the bottom that has automatically extracted the history from the primary care providers consult request into the screen. This is something that, as I told you before, isn't possible right now in CPRS image. They either copy and paste or they manually transcribe.

The other thing to note is that, as you remember earlier, when I was playing the role of the primary care provider, there were a couple of fields that were left unfilled. It tells the Imager that there are unfilled fields by saying and specifying values in this orange box next to the consult reason from request label. It will tell them exactly which fields are unspecified and which the primary care provider didn't enter. The Imager can at this point can ask them, for example, in this case whether the patient has had any prior treatment or if they've had a previous biopsy and enter those as additional text into the consult.

When they're done, they'll click the finish button and they ask to sign their note. Once they find their note, they'll be taken back to the dermatology consult screen, which will show that the consult is now complete. If you go to CPRS of the consult, as you've seen circled in red, it's now updated to be complete. The Imager note is now viewable both in the consult tab as well as in the note tab.

Then the Imager needs to create a reader consult. They'll be taken back to the dermatology consult screen and they can click on that consult. It will expand and show that the reader consult button is now available. They can touch that, and they'll be taken to a reader consult creation screen, which will largely be prepopulated, but they'll need to enter which consult special they want to send this to and that's very important.

Otherwise, there's no other data entry necessary and they can touch the create consult button. They'll be taken to order screen, where they can sign the order. Now, this has been identified as an issue and it's currently in field testing. We hope it will be corrected because most Imagers are used to signing their notes and on chart or by policy, right now the app is having trouble allowing them do that.

We believe that will be solved by the time this goes out for national needs. Once they sign it, a reader consult is created. You can see that here, it's in a pending status and you can see that in CPRS as well. This can be instantaneously updated in CPRS. Now we go to the last step of the process, which needs to take images. They click on the reader consult and it will expand to show the select button.

Once they click on that, they'll be able to go to the image capture screen. This will allow them to take images. If they click on this green button circled in blue, at the bottom. Circled in red is this thing called Controlled Image Option, which will allow the Imager to hide the images. The images won't be displayed on the app after they take them. This is so, if the Imager is in an area where they're worried that somebody else other than the patient might see the images who's not supposed to, probably not going to be too necessary in most instances.

That option is available if they click on the picture button in green. It'll open the native camera on the mobile device and they'll be able to capture images. They'll be displayed sequentially as thumbnails within the app. Once the image is captured, all those that they want, they touch the capture image button circled in red and the app will confirm that the images are uploaded. I'll just say at this point, we've found in field testing, the app has trouble uploading a large number of images. If you get more than about six images, it seems like there is a problem with bandwidth and it doesn't transmit the images fast enough. There's a problem with something timing out and there's not going to be a successful image upload. The solution to this, at this time, is to use smaller batches. You would upload batches of, let's say, six images at a time. Once you get this, then you would simply close the image upload confirmation window, instead of clicking the view of patient studies, and go back to the image capture window. Then, take an additional set of six images and keep doing that until you've taken all the images necessary.

If you do click on the view patient studies buttons circled in red, it'll take you to a window in the app that confirms those images have been captured. As you click on that image, they can see which images have been captured and uploaded into imaging. This is the last screen I'm going to show for the app. It's the configuration screen. It's the one that allows each facility to configure the app to its preference. From the display default consult, titles, the notes progress and the titles for the imagery.

This is the one that's accessible by somebody using a MAG System Key. We recommend that this be done by one person who's knowledgeable about the process in their facility, like a clinical champion or the facility telehealth coordinator. This is really something that shouldn't be given to every user to access this page. It's not an individual user type of configuration. That's it for the apps walkthrough and I'm sorry this took a little bit longer than I thought.

These won't be on the Beta site. While it's going to be going onto the Beta store, not every site is going to be able to use this unless they have been assigned to have that functionality. All that you can do on this site is get more information about the app and look at training materials. And, with that, I'd like to take the questions.

Denise Kennedy: Yep. So, there's a couple of questions here. Let's see if we can get through them. The first, you may have answered this, but it was earlier in the presentation. Can PCP order in CPRS and the Imager use the app to take the photos?

Dr. Dennis Oh: Yes, and vice versa. The PCP can order a consult using the app and the Imager can process it and take images through a workstation. Just the way they do now.

Denise Kennedy: Okay. And then, I think this got answered from some others on the chat, "I'm a little confused with the process. Does this need to be at a VA location or can a VA personnel do this from home?"

Dr. Dennis Oh: Right. This app is designed to be used by VA personnel, not by patients. It has been designed to be used in a VA clinic or a facility.

Denise Kennedy: Okay. Two more questions here. One was earlier in the presentation, it was mentioned that the app will roll out over the next two years to sites identified on that map earlier in the presentation. If your site is not one of those, when would they be able or when could they expect to access the app?

Dr. Dennis Oh: Right. It would be after the controlled release of the app. After the initial 36 sites have been exposed to the app, then it would be made available to everybody. That would be somewhere in the next one and a half to two years.

Denise Kennedy: Okay. And, I know there's some more typing, but what was the purpose? What was the driver for developing the app? Kind of answering the question of why we are doing this. Why do this now?

Dr. Dennis Oh: Well, this app, as I said, solves some important problems with the current process. It eliminates the need for Imagers to copy and paste or transcribe history from the primary care providers and consult order into their image note. It eliminates the need for Imagers to connect to a physical workstation and eliminates the need for Imagers to delete images from their camera, as they should be doing currently in the current process, because the app does not store any images on the mobile device itself. It uploads and, then as part of the process into the imaging server, deletes them once the app is closed.

Denise Kennedy: Thank you. There's some conversation there around this and I'm a little unfamiliar. So, I'm sorry if you just answered it. I already have a teledermatology camera, why would this be needed if we already have the telederm program? I think you touched on that, but I just want to make sure that the folks on the other end hear the answer.

Dr. Dennis Oh: Okay. Sure. Right. This app was purposely created to replicate and interface with the current program. If you're currently doing teledermatology right, you can keep doing that. You might say, "Well, why would I use this app?" Well, I think that the Imagers are going to appreciate this app the most because it'll probably, once they get started, excel in using it.

They're going to find that it's probably going to be more efficient in letting them process consulting image patients. The other thing is that as we move more and more toward an app based and mobile environment, providers are going to be finding that this fits in better with their workflow as they use things like patient viewer for other functions in their day to day activities.

I should also say that the app does allow the native voice dictation capabilities of the mobile device to be used. It's not medically sophisticated, but most consults have sophisticated information anyway, and so it will allow providers to enter more history just by talking to the app rather than typing them as they do now.

Denise Kennedy: We're a little overtime, but I'm going to get at least one more question in. There was a question, will dermoscopy be available in this app?

Dr. Dennis Oh: Oh, that's a very good question. The app itself doesn't share whether you have a dermoscope or not. If you have an iPad, there are devices that are purchasable from other vendors. There are some very important considerations to be had when you use a dermoscope on an iPad or you and the iPad itself. These iPads and the magnets that dermoscopes use to attach to iPads can, when brought very close to patient, cause problems with implantable medical devices like pacemakers.

The recommendation is that if you use iPad app with an iPad, with or without a scope, please keep away six inches or more from the patient's pacemaker or other implantable device.

Denise Kennedy: Excellent. Well, thank you so much. If there are some more questions that we did not get to, but I want to be true to peoples' time here. I've asked those in the chat if your last name isn't there, if you could just direct message me and let me know, I'll get you those questions. With a couple of notes, the file will be sent out if you want to access the slides there in the file name below.

Additionally, the information will be up in a few weeks on the VA Mobile Discussion Series website. I'm putting that address in the chat box now for those of you who are listening. If you wouldn't mind filling out our questionnaire, letting us know how we did and any future topics you would like to hear.

Once again, we will follow up with those of you that we can with any unanswered questions. I hope everyone has a great rest of your day and a great weekend. And Dr. Oh, thank you so much for the presentation. We greatly appreciate you taking the time. We had a large number of people on the phone here. Tthanks so much everyone. Have a good day.