Clinical Case Study: Telehealth for Dermatology

Featured topic and speakers

Speakers discuss ways to leverage a variety of telehealth dermatology modalities including provider-to-provider e-consults, live audio/visual and store-and-forward.

Speakers

- Lawrence Cheung, MD, dermatologist, Synergy Dermatology, California Medical Association and Dermatology Section Council of the AMA
- Jason Fung, MD, dermatologist, Dermatology Center for the East Bay
- Elan Newman, MD, dermatologist, DermConsult

Hosts

- Bernadette Lim, program manager of digital health strategy, AMA
- Laura Fritsche, program administrator, digital health, AMA

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Transcript

Lim: Good afternoon, everyone, and thank you for tuning in to another telehealth immersion program event. In today's session, we have three dermatologists joining us today, who will share their unique experiences in using telehealth to provide dermatology care. During our 90 minutes together today, Dr. Lawrence Cheung will share his experience in providing provider-to-provider E-consults at Asian Health Services. Dr. Jason Fung will highlight telehealth use at Spruce dermatology clinic and Dr. Newman, joining us today, will share his experiences leveraging asynchronous technology at DermConsult, a digital dermatology clinic.

After these three featured case studies and a combined discussion on the future of teledermatology beyond the COVID-19 pandemic, we will facilitate a panel discussion among speakers at which time we invite you as the audience to ask questions live. And with that, I'd like to introduce Laura Fritsche, program administrator on the digital health team here at the AMA, who will introduce our speakers today. Laura, I'll turn the floor over to you.

Fritsche: Hi, everyone. Thank you. I'll be introducing Dr. Lawrence Cheung as our first speaker. Dr. Cheung is a board-certified dermatologist who practices general dermatology in San Francisco. He has a special interest in atopic dermatitis and psoriasis and conducts phase III and phase four clinical trials for these two conditions. Beyond his clinical work, Dr. Cheng is active in organized medicine and public health policy. He's currently a board member of the National Council of Asian Pacific Islander Physicians and the California Medical Association, as well as an appointed San Francisco County Commissioner for the San Francisco health authority. Dr. Cheung, I'll pass it over to you.

Case study: Asian Health Services

Dr. Cheung: Great. What I'd like to talk about today is present my experience with Asian Health Services. Next slide please. So just a little bit about Asian Health Services, it was founded in 1974. AHS since then led the way in areas of health care, access and advocacy for Asians and Pacific Islanders. It is located in Oakland, California, which is part of the vibrant, diverse Bay Area communities. The mission of this clinic is to serve and advocate for the medically underserved, including the immigrant and refugee Asian community, and to ensure equal access to health care services regardless of income, insurance status, language or culture. Next slide, please.

So just a snapshot to give you guys a feel for what it serves. In 2020, it served about 25,779 patients. Of those, 63% patients are in less than 200% of the Federal poverty line. 97% of those patients are medical. Many are uninsured. 73% of those patients experienced linguistic isolation. And the service provides care in 14 different languages, most of whom are interpreters that are onsite doing real-time translation. Next slide, please.

So, I joined the volunteer staff of AHS in 2005 and I was the only dermatologist on staff there. And I staffed half day clinic per month, and I routinely had more than 20 patient visits per clinic: so either morning or afternoon. So, as you can imagine, the access to my clinic was very tight and was often a six-month wait to see me in my clinic. Next slide, please.

So, because there was only one of me and I only had time to volunteer half a day per month, I needed to create additional access within these parameters. So that was my problem. Next slide, please.

So, while thinking through this problem, I thought that dermatologists are trained with photographs of skin diseases, in addition to live patient encounters during residency. And indeed, our American Board of Dermatology Board Certification Exam is conducted entirely with photographs and glass dermatopathology slides. So, I thought, why couldn't I use actual patient photos for patient encounters? Next slide, please.

So, I came up with a solution. In 2012, I created a dermatology platform at AHS to triage patients for either inpatient visits or remote diagnosis and treatment. So, the platform is based on an asynchronous provider-to-provider E-consult service. Next slide, please.

So how did the workflow go? So, imagine a primary care colleague is stumped by a rash. What he or she will do is, together with their staff, photograph the rash based on a protocol that I created, meaning that it would be multiple photos using a whole-body distribution and/or up close of the lesion so that I can make a diagnosis. And these photos are uploaded with pertinent patient history, pertinent only to the consult that is. And I would be notified when there's a consult so that I can respond as quickly as I can. Rashes that I can diagnose would result in treatment recommendations back to the primary care team without having the patient be sent to my physical, AHS dermatology clinic. Conditions that require an inpatient visit will be scheduled by the primary care team to my in-person clinic. Next slide, please.

So, what was the impact of this? I was generally able to respond to the consult within a week of the photographs being uploaded. 80% to 90% of cases were diagnosed and treated successfully, without the patient ever having to make a second visit to my physical clinic. Cases that were requiring in-person visits were typically procedural cases: cryotherapy, biopsy injections, and the wait time for the in-person visits went from six months to approximately one month and wait time for diagnosis and treatment of most inflammatory diseases came down to one week. Next slide, please.

I should mention that if you do the math, people would say, how is it possible that you could see so many patients within that short of time to decrease the access? And the answer really is that there were lots of unexpected advantages. First of all, language barriers were completely eliminated. As I alluded to before, many patients spoke non-English languages and required interpreters. That was entirely eliminated because I was working with the primary care team and staff, not the patient directly.

Technology barriers were also completely eliminated because the primary care team and the staff would take photos at the same visit, and they would upload them to the platform. So, there is a feedback loop. The primary care doctor would gain practical knowledge from consults and be able to apply that knowledge to future cases and thus, potentially decreasing the number of new cases that needed referral.

And most patients did not need to make an additional visit to see me at my clinic, which is a huge advantage for patients with transportation or time barriers. Additionally, when you do an asynchronous

consult, again, I am talking to the primary care team, so I can make a diagnosis and send off treatment recommendations probably within a minute or two, as opposed to spending 15 minutes to 30 minutes actually seeing a patient in a live manner. And so, there was a lot of time savings when I was doing the consults from a provider-to-provider perspective, and there was a lot of less time that I needed to spend because it's asynchronous. I didn't have to wait around and there was no technology or language barriers. Next slide, please.

So, what I didn't consider, at that time, was reimbursement. I was paid a nominal sum for my in-person clinic as a volunteer. And eventually we settled on a nominal, fixed, monthly stipend for my dermatology visits. At this next slide, please.

When Asian Health Services adopted EHR, I helped them transition from a standalone dermatology platform to the one that's actually integrated within the EHR platform. And I was able to hand over a turnkey platform to a subsequent dermatologist that came to replace me. And so, I've since retired from AHS. Next slide, please.

So as a result of my work with teledermatology, I was approached by Spruce Health, which is a San Francisco-based telehealth startup to be there, dermatology, dermatology consultant and clinical dermatologist. And this is where I met some of the other panelists that are going to be speaking today. Thank you.

Fritsche: And I'll introduce our next speaker, Dr. Jason Fung, an alumnus of Yale University and the University of Rochester School of Medicine. Dr. Jason Fung completed his medical internship at Yale New Haven Hospital and his dermatology residency training at Washington University in Saint Louis. Dr. Fung is a co-founder of Dermatology Center of the East Bay, a private practice based in the San Francisco Bay Area. Dr. Fung has been an active participant in dermatology over the years in a variety of different settings, from multiple telemedicine startups to his own private practice. Dr. Fung I'll pass it to you.

Teledermatology case study: Spruce Dermatology Clinic

Dr. Fung: Thank you, Laura. All right. So, we're going to kind of time travel a little bit here, back to 2014, which is when Dr. Cheung and Dr. Newman and myself were collaborating with a number of other board-certified dermatologists with Spruce. And let me just make sure I have good control. I do.

So, in 2014, Spruce launched an app that connected patients directly to board-certified dermatologists. And for me personally, that was actually pretty exciting. I'd only really done teledermatology in a very informal manner prior to that, more of the family and friends type scenario where somebody texts you a photo of a rash or a growth. So, this was a great opportunity to do it in a

manner that was organized and formal and tech supported. And so, this next set of slides kind of pays homage to the historical overview of the Spruce Dermatology Clinic.

And I say historical because Spruce, in this exact iteration, doesn't quite exist anymore. But a lot of the lessons that we learned from that experience definitely apply to what many of us still do today. So, we will show from the patient end of things. So, when the patients would log in to the app, they would be presented with a couple of dozen clinical pathways that they could choose from. And this was very much like choose your own derm. adventure. And in concert with the medical director at Spruce, we all came up with a number of common, lower acuity derm conditions that we all felt were reasonable to try to work up and manage remotely.

And now, as it turns out, not all of these conditions were amenable to being handled in that manner. But it was all part of the learning process for sure. And so, we had everything from acne to hair loss to hives to a variety of other conditions. And I thought what I would do is just highlight one of the pathways that was pretty much always well received by the patients and providers, and that was the one for acne, which was sort of the original one that launched Spruce back in the day.

So, the acne pathway, it started with the patient answering a series of questions about their symptoms. For example, when did you start getting acne breakouts? Where are you experiencing acne breakouts? Has your acne had any of the following characteristics? Has a doctor ever prescribed medication to treat your acne? And if so, which acne medications were you prescribed? The app was also very helpful in that it guided the patients in how to take photos.

So, when they turned on their camera for that portion of the process, they would be told to position their face within the oval, so we could get a good frontal face view. They would turn their head to one side, get a good left profile shot. Turn their head to the other side, get a good right profile shot. And then the pathway would continue with asking the other elements that are typical of medical history. Past medical history. Family history. Social history. Any current medications. Any allergies to medications. And that was pretty much it. I mean, just like that, the patient intake process was complete.

And for the patient being able to do that on their own time, wherever they were, whenever it was convenient for them, was clearly a value add. Now, on the physician end, from our end, we were alerted that there was a new case in the inbox. And so that's me back in 2014 logging into my iPad. And what's really nice was you would open up a case and the entirety of the app, for all intents and purposes, was pre-populated.

And you know, as it turns out, that ended up being a preview to what's really happening nowadays. You see it quite commonly. I think that patients have much more opportunity to have a hand in entering their own data into their health record, oftentimes through patient portals, let alone the day of visit. Note and so in this particular case, for this particular patient, she had indicated that she had had

acne for more than two years. It predominantly involved her face. Formed deep, hard lumps and created scars. She had tried prescription medicines before, including benzoyl peroxide, clindamycin, neither of which were particularly effective. And she was looking to move on to hopefully newer options.

And then past medical history just showed PCOS, the patient was not pn any medicines, supplements or had any medication allergies. And then these are the photos that. the good quality photos, that the app was able to help recapture. And we could zoom in on these and see that she had nodular cystic acne, involving the bilateral jawline and cheeks. Pretty good for hormonal type acne vulgaris.

And so, from my end, that was pretty much all I needed to be able to confirm her diagnosis and issue a treatment regimen. And keep in mind the entirety of this discussion, the whole assessment and plan process that we would communicate to the patient, from counseling, to goals and expectations, to side effects. That was all done actually via text messaging feature within the app and which the patients really appreciated because even after the initial encounter was over, they could reach out quite easily, if there were any problems, any questions that they had.

And so, I'll actually show an example. So, this patient, a couple of weeks into the process says, hi, I've been using the Retin A for the last two weeks and my skin is super red and peeling. Is there anything I can do about this? And so, I was pinged that this was a concern for her. And so, I responded, sorry to hear. Definitely take a break from it until the irritation subsides. Consider hydrocortisone twice a day, to calm things down faster. Once your skin is back to normal, resume Retin A, but maybe every other night instead of nightly. And the patient was appreciative of that.

So, this nice quick access, you know, for clinical resolution, a very straightforward situation was well regarded by the patient. But it wasn't just clinical concerns that could be communicated. There were definitely nonclinical issues that patients needed help with resolving as well. And so, for example, she texted one more thing the Retin A costs $70, is that typical? So, I responded that well, pricing is highly variable depending on pharmacy. So, I'll have my care team do some research for you. Please stay tuned.

That was the beauty of this messaging platform, was that it essentially, worked as a group text thread and I could tag my medical assistant or the care coordinator to become involved in this conversation and help resolve that particular issue, which you can see at the bottom of the screen here. And so, then the medical assistant would do her online research and found a better price for the patient, communicated that over to the patient. And again, that particular issue pretty quickly resolved. So very nice, very seamless, very smooth.

So, what do we really learn from Spruce in terms of asynchronous teledermatology and some of the value that it brings? Well, for sure it saves time, right? The patients didn't have to wait to make an in-person appointment months down the road. They didn't have to take time off from school or work to

make this happen and saved money, too. These patients were charged $40 for a Spruce visit and that was much less than the specialty visit co-pays that my patients were paying back then to see me in the office.

Another nice feature was that it improved the access for some of the under-insured or uninsured patients who otherwise couldn't be seen or weren't regularly seen in brick-and-mortar practices. So as highly effective as teledermatology can be, you obviously can't do it for everything. I alluded to that earlier. But for the right condition, for the right patient, for all of these above reasons, I think we all agree that we could often provide care at or above the same level as we would provide in the office. And so, I think, you know, the there's no question that we brought a lot of value to this experience.

And in addition, we also learned from patient feedback during that time period, that patients often judge the quality of their medical care based on the quality of their care coordination, which is to say it's not just about diagnosis and treatment, but everything about the process that comes before and after as well. You know, how smooth and how seamless that whole experience plays out for them impacts their patient opinion, quite a bit.

We often would talk amongst ourselves that we wanted the patients to remember that virtual visits are still backed by actual care. And I think the patients often would sense in how attentive we and the care team would be in addressing their needs that we were all really trying to do right by them.

And so, I think they all really appreciate that. Now, granted, none of that coordination is really possible unless you have good communication between the patient and the care team, amongst the members of the care team itself. And you can see how again with that group text example that I gave earlier, that exchange was pretty fluid and allowed for clinical and non-clinical resolutions to be brought to bear very quickly.

Communication definitely has to be, in an ideal world, ongoing and assessable if it's going to match that continuum of how we deliver health care in and out of the office. I'm often telling my patients that out of the office doesn't mean off the grid. Because I like to remind them, you know, the practice of medicine doesn't just happen inside the exam room. I want them to stay in touch with me. Things are dynamic. Things can change with their health status. And then finally, there definitely has to be a certain level of patient by-in for all this to work. And that involves trust, trust in the care team, trust in the technology. And without that, it can definitely be a more challenging route.

So, when it was all said and done, this was the take home message from for me, from my time with Spruce, which is with great quality of care, there must also come great care, coordination and great communication and great trust. And I'll hand it back to Laura to control now.

Fritsche: Thank you, Dr. Fung. And our third presenter is Dr. Elan Newman. Dr. Newman is a board-certified dermatologist and micrographic dermatologic surgeon, practicing in San Diego, California.

He's a graduate of the University of California at Berkeley. He attended medical school at the University of California, San Diego, and completed his medical internship at Los Angeles County General Hospital.

He then returned to San Diego to complete his residency training at the University of California, San Diego. From 2014 to 2018, he worked as a dermatologist and consultant at Spruce Health Care, helping to launch one of the first direct-to-consumer teledermatology services in the U.S. In 2018, he founded his own private practice teledermatology service, DermConsult, which he'll be discussing today. Thank you, Dr. Newman. I'll pass it to you.

Case study: DermConsult

Dr. Newman: Well, Hello. Thank you very much for that introduction. Hi, everyone. I'm Dr. Elan Newman. It is an honor to be here. I want to thank my colleagues at the AMA for allowing me to speak to you today about my company DermConsult and how I am using asynchronous telederm in my digital practice. So, let's see if I can advance the slide properly.

Let's see. A few housekeeping measures. Just a disclosure that I will be mentioning products from Spruce today in my talk. And those two, there, are my little dogs. That's what they look like from that side. They are busy guarding the door right now, if you can see that, in case they make an unscheduled cameo appearance in this webinar, that's who they are.

So, the idea for my company DermConsult began in 2017, as a thought experiment. And the thought was this that imagine that you're a lone dermatologist and you're stuck on a deserted island in the tropics. But you brought along your smartphone, and they have great Wi-Fi on the island and either you can't call for a rescue or you did. And it's just going to take a while to get to you. While you're stuck there, can you still take care of your patients back home? Could you deliver dermatologic care elsewhere?

And I believe that the answer is, yes you can, for many conditions. And today I'm going to talk about how you can do that and what you'll need. And what you'll need will be a HIPAA compliant way to communicate securely with your patients and internet connection. But most of all, you're going to need your own medical expertise. And by that, I mean you'll need your own ability to diagnose and manage diseases of the skin.

And this is something I'm going to be returning to a few times today. And when you think about it, what is the most essential part of a medical practice? And in my opinion, it's the physician's expertise. And realizing this is what ultimately led me to create DermConsult and why I believe that asynchronous teledermatology works so well.

So where did it all begin? So, this thought experiment that I described started in 2017 while I was working with an appraiser and looking at a few dermatology practices that were for sale. And if you've ever gone through the process, it's interesting because you'll see how appraisers will take apart different elements of our medical practice and give them a dollar value. And oftentimes in this process, I was asking of the appraiser, what exactly am I actually buying, if not the practice?

And in many cases, the response came back that I'd be buying a book of business or a goodwill. And that's because we don't own our patients in private practice. And at the same time, I was also learning about the business of running a practice: the overhead, the leases, the staffing, the supplies. And it seemed to me that rightfully, like any business, for a practice to be successful, it needs to overcome the cost of operations. And as costs increase, productivity has to increase; see more patients offer more services. And to do that efficiently, you have to get more resources and that increases your overhead. And so, at about that time, I was feeling just a little bit discouraged by it all.

I was worried that I would be buying some intangible thing and then I'd be left to fight off my overhead. And at that time, I had been working at Spruce Dermatology with my colleagues, where the paradigm was much different. It was essentially a dermatologist, an app and the patient. And so, I asked the question then, of whether we need all of the elements of a brick-and-mortar practice to provide high quality medical dermatologic care for common skin conditions. And if not, then which elements are essential, and which might be less essential?

And so, after a lot of thought about practices that I end up not buying, I came to the personal conclusion. And my conclusion is that the one mission critical element of any medical practice is not just dermatology, but in any practice, is the physician's expertise, and this element is essential, and it cannot be substituted or replaced.

So, at that point, I decided to take this thought experiment a bit further, and this is how DermConsult evolved from an idea to an actual company. So, starting on the left, knowing the elements, the capabilities and the challenges of having a brick-and-mortar practice, I decided to do something a little different because it was clear from Spruce that one could safely and efficiently manage many dermatologic conditions using asynchronous tele derm. But we knew that we couldn't do procedures and we couldn't do skin biopsies and we couldn't do surgeries through an app or doing that remotely.

So, over the course of several conversations with the then medical director of Spruce, Dr. David Craig, the following framework emerged. And the idea was this, if you had a practice, what if you could shift your nonprocedural visits to telemedicine and only bring in those visits, those patients, into clinic who required a procedure or were just too complicated to manage remotely? What would be the implications of that? Could you better control your overhead? Could you increase the RV use per visit? Could you increase productivity at a reduced cost?

Would you need to have the clinic open all the time? Because part of the time you'd be doing telemedicine and with that space, could you share it with someone else? Could you share the staff, share the costs, and could you even expand your patient base by providing asynchronous teledermatology beyond your geographical area? So, in other words, could you combine the advantages and the efficiency of asynchronous telederm with those of a brick-and-mortar practice and get the best of both? And finally, could you do this as a private practice?

Because at the time most direct-to-consumer teledermatology services were corporate startups and they were backed by venture capital. They had their own focus and at that time, most private practices were not thinking about telemedicine and were heavily focused into the traditional patient coming in for a visit.

So, in 2018, DermConsult launched operations and that was just at the time that Spruce was wrapping up its direct-to-consumer intelligence services and many patients were transitioned from Spruce to derm consult. Today, DermConsult operates on Spruce care messenger platform. That's our HIPAA compliant communication platform. We use features of this platform, along with a few other apps, to create a functioning, digital dermatology clinic.

Our service is fully asynchronous. It's fully digital. We're paperless. We are a cash service. We charge per visit and we're using the same workflows that we created and perfected on Spruce. DermConsult operates in 13 states. Which means we had to meet all sorts of requirements for federal and state regulatory compliance, licensure internet security, security surrounding online money transactions. But the one interesting thing is that the clinic has no physical location. It is entirely virtual. It has just a virtual mailbox and this greatly reduced our overhead. There are just two people working at DermConsult right now. It's myself and one medical assistant and this greatly simplifies our operations. our contracting, our regulatory obligations and so on.

So, I want to talk then for a minute about our scope of services. So, in terms of scope of services, we are treating the same conditions that were treated on Spruce. But when I started the company, I really wanted to push the envelope. I wanted to expand the number of conditions and treatments that we could manage and that we could offer over telederm.

So, in 2018, we developed our own workflows for the remote prescribing and monitoring of isotretinoin treatment for acne, and we made sure that this was acceptable to the FDA, and we approached them and it was. And today we're managing many more complicated, medical dermatologic conditions than we did on Spruce, for example. We use biologics and immunomodulatory agents for psoriasis and eczema.

We are treating female androgenetic and even some commercial alopecia as remotely we conduct drug and laboratory monitoring through corporate and commercial labs. But the one point to make is that DermConsult is still not an emergency service, and I'll speak more about that later. And of course,

patients who require procedures, biopsies, are routed to local, board-certified dermatologist to take over their care. Patients who are able to come to my clinic, come to see me. But because our service is spread across multiple states, we often have to find a local dermatologist for the patients to see. And the practice of referring to a local dermatologist, in my opinion, forms a safety net for our patients. It closes the loop on their care, in other words.

So, moving on here, I do want to spend a few minutes talking about asynchronous teledermatology and perhaps, why it works and some of the nuances of this type of communication. And what I'm going to say is also true, I think, for any specialty using asynchronous telehealth.

So, one of the things that was mentioned earlier was that asynchronous teledermatology creates a chronological log of the conversation between the physician and the patient. It's much like a text message thread. And studies have shown that when the patient comes to see a physician, they only remember a small fraction of the information that was discussed. And on our end, as physicians, our visit notes have to be concise. And so, we summarize and may highlight the record of the encounter, but we don't copy everything verbatim. So now when you have a recorded log of the entire exchange, it allows the physician and the patient to go back and review every element of that conversation.

It's immensely helpful to actually go back and say, this is exactly what was said, this is exactly what was being told, and in fact, it allows you to go back at your leisure to do it. We have a feature on DermConsult that creates an alert whenever the patient opens up the app to look at their record. And I see that patients are going back. They're looking at their treatment plan. They're looking back at what I said and what they said.

And because we're on the internet, it allows us to send internet links to each other or photos or videos and all that information stays in one place. And it's really helpful, I find, when I'm trying to direct patients toward a reliable resource on medical information or when they bring me something and I can then go ahead and address it. One of the other useful tools of this service is that reminders are sent to patients to make follow-ups at a predetermined interval. As a physician, I can check in with the patient. How are you doing, at a pre-determined interval? And I think patients will follow that. They get messaging, they tend not to fall through the cracks as easily.

And finally, patients, when they do make their visits, they'll schedule it in their own schedule. And that seems to work for a lot of them. But as a result, the conversations between patients and physicians, these messages, may extend over hours and sometimes even days. And I'll talk a little bit more about that later.

So, shifting here to the dermatologist and an asynchronous, telederm visit. As a dermatologist, as a physician, on our end, every element of medical decision-making that is used in an in-person visit, is also used in an asynchronous visit. You're going to review the chief complaint, the history of present illness, any relevant past medical and medication data. We review the photos of the areas of concern,

and that's our physical exam.

And we finally put everything all together into an assessment and plan and we arrange a follow up. And when you look at that during an asynchronous visit, you see the physician is using the exact same workflow and thought process that happens during an in-person visit. However, there is one difference, and that difference is that your physical exam may not be the same. It may be limited by what the patient provides you.

So, I'm going to use this example of what I mean. Let's say the diagnosis is the photo on the left, and everybody knows that's the Golden Gate bridge, but the patient sends you the photo on the right. And so how do you go from the information on the photo on the right to the diagnosis on the left?

Well, I think it takes a trained mind, a trained eye to recognize patterns in the image, to correlate those with the medical history, and then to come up with an appropriate differential diagnosis and treatment plan. And because you don't always see the big picture as far as what the patient has, you have to start thinking about information that is provided from a treatment success or a treatment failure. And how that will influence your differential diagnosis and what treatment plans will and will not cover your differential diagnosis.

Because you have to remember that sometimes patients may not have easy access to a dermatology, where they are. And so really, they're relying upon us as the only source for their care to address whatever their concern is. And in my opinion, I think this is a very high level of medical thinking. It's subtle. I think it's difficult. And it takes quite a long time for even an experienced clinical dermatologist to acquire a level of comfort to manage a patient using asynchronous teledermatology.

But I do want to make mention of a few things here. Let's see, I want to talk for a minute on the limitations of asynchronous telehealth or teledermatology, because I feel this is important. And I feel that whenever someone is conducting asynchronous telehealth or telederm, you have to be aware of the limitations. And one of the limitations, I feel, is an emergency because these are not synchronous. I think anyone who provides asynchronous care needs to have a protocol in place for handling such emergencies like we do at DermConsult. And the first step involves recognizing that there is an emergency, whether the patient realizes it or not, and then reaching out to that patient over the phone or live video or however you do it and assisting them in getting appropriate in-person care and following up with them.

I think by the same measure, it's also important to realize when you don't know something that you're looking at or trying to treat in asynchronous telederm or telehealth, that you've done maybe as much as you think you can and it's time to hand the patient over to an in-person physician, and to have that protocol in place to know how to locate doctors through a directory or online, because you as the physician might know the best doctor for that patient to see.

And I considered, I said, this is a limitation, but it may not be, but it's, I don't think asynchronous telehealth should ever replace the human quality of medicine. And by that. I mean that it's important that patients always know that there is a real-life human doctor on the other side communicating with them, and it might involve that as a physician, you involve a few more words in the communication, that it's just important that you convey your concern for the patient's well-being at all times. Because when you think about it, you have to really remember that the most important part of the medical practice is your expertise. It's you being a great doctor.

So, but I do now want to shift a little here, and I do want to talk about the other side of this. Now, let's talk about our patients. Are patients today ready to accept asynchronous telemedicine or teledermatology? And back when I started working with Spruce in 2014, the answer was unclear or clearly no. And at that time, many direct-to-consumer telemedicine or telederm services were just striving to try to achieve some legitimacy with our patients. And that's I think part of that is because we were communicating through the same medium that was used by other less reputable entities who promised big but delivered little. But I think a lot's changed in the last eight years and society is actually placing a lot more faith and a lot more trust in the services that they get through apps and through the internet. A couple of examples of that so, if you think about eight years ago, would any of us used an app to call a stranger for a ride to the airport? Or would you have rented a stranger's home for the weekend with your family?

Of course, we do that now, and we have confidence that the service we will receive will be as good as a taxi or as good as a chain hotel. But the point is that society has already adopted the technology through which we can provide asynchronous telehealth. But I think it's also significant to think about how we as humans are now communicating with one another these days. More and more, we're using non-verbal means of communication.

We send each other text messages rather than calling each other. In fact, a phone call might be seen as intrusive or it's an emergency. And so now we send text messages to make appointments, to call each other. So, we know it's not an intrusion and it's not an emergency. And I think as physicians, where we spend our days conveying medical information to everybody, that we need to be aware that these behavioral shifts are occurring in our society. And it's important to recognize that maybe more of our patients might prefer to receive and process important medical information, non-verbally. It's possible that important medical information, at least for some patients, might be better understood by reading it and not just by hearing it explained to them.

So, something to think about. As far as the big picture of what are the barriers, why isn't asynchronous telehealth being used more often? Well, there are barriers. And the most prominent of these, I feel, is a lack of reimbursement for such services. If you look back to before 2020, telemedicine in general was just poorly reimbursed. There were some examples of payers who did cover telehealth, such as Medi-Cal in my state in California; Medicaid service that did reimburse asynchronous telederm.

Medicare had a few pilot programs with rules, but the result was that telemedicine was used mostly in closed systems such as large hospitals or in direct-to-consumer services.

And I think many physicians who are eager to use this mode of health care delivery, we're pretty much left waiting for Godot until payers decided to reimburse telehealth at a sustainable level. And then we know that all that changed with the pandemic and telehealth, telemedicine became essentially the lifeboat of the American health care system for a little while. And it was a big game changer that CMS agreed to reimburse live video and telephonic visits during the public health emergency.

But unlike live video and telephonic visits in which CPT coding is structured very similarly to an in-office visit, there are definitely nuanced challenges that you'll have when we think about how we could and how we would reimburse asynchronous telehealth. And what I mean by nuanced is this. If you look at an established patient for a live video visit, that's a 10 to 19-minute visit, the appropriate CPT codes is a 99212, with appropriate modifiers, and that includes a pre-visit and post-visit, time spent reviewing the medical record, issuing orders, writing prescriptions, etc.

And in an asynchronous visit, the chart review, the patient evaluation, the assessment, the ordering, the planning are all performed concurrently. And the encounter with the patient may be a back-and-forth conversation that could spend a few minutes, days, maybe weeks, or it can just be a one-time, single communication. But, as the physician, the single message may take less than a minute to compose and to send. So how do you account for the time spent on a single encounter? Now looking at medical complexity, medical complexity for an asynchronous visit may be straightforward or as we've seen, it can be very complex. So there is a lot to consider when we think about how to reimburse telehealth.

So one final slide and one word on Interstate telehealth before I hand things back to Dr. Cheung. During the pandemic, many states temporarily loosened their licensure rules regarding physicians practicing across state lines, obviously to meet the needs of the National emergency. And now, as we move back to pre-pandemic regulations, naturally we might want to maintain some of those gains that we've made to access through telehealth.

So, to this end, I think we can expect that it will be more common for physicians to now hold multiple state licenses. And as one of those physicians, I can attest that it is a considerable administrative challenge to maintain each license and meet the requirements set by each individual states. And it's also one that comes at a considerable cost. So, I think that pathways to better facilitate the maintenance of licensure to meet each state's requirements would do a great service to those physicians with multiple active state licenses. And with that, I thank you for your attention and I return the podium back to Dr. Cheung.

Adapting to COVID-19 and beyond

Dr. Cheung: Thank you. So, Lawrence, again. Next slide. So, we, I think the three of us have gone through, historically, how we all entered into various, different forms of teledermatology through async methods. And going back to what happened with COVID is that it really brought teledermatology to the forefront. And indeed, in the early phase of the pandemic, I really needed a solution to allow for social distancing within my waiting room, within my physical waiting room. So, I chose to adopt a 50/50 in-person teledermatology schedule. I currently use Cerner as an EHR. And it already had a HIPAA-compliant patient portal, in which patients can securely upload high-resolution photos and email messages. So, I tweaked the protocol so that my staff would ask the patients and/or their family members to upload these fixed photos. And these photos are pre-screened by my staff to ensure that they're suitable for me to use. Next slide, please.

And all of these patient demographics and insurance information were populated ahead of time by my staff, so that at the time of the visit, again, all technological, administrative barriers have been eliminated. And at the time of the patient appointment, I would simply call the patient by telephone for the visit. I decided against video visits because of the technological barrier and also poor camera resolution. I have a lot of patients in my own personal practice who are elderly, who are monolingual, Chinese speaking only. And so, these would have presented challenges for them. And I was able to successfully implement this workflow so that the number of visits during COVID remained close to that of pre-covid times. Next slide, please.

Now, when San Francisco relaxed our restrictions. So, this was in June of 2021. I decided to go back to offer in-person services as well, not just 50/50. So, I tweaked my schedule. I was expecting that probably, you know, I don't know, 70% to 80% of my patients would come back in and the other 20 to 30 would do teledermatology visits just because they’re so much easier. Parking is terrible in San Francisco. There's always traffic. But what's interesting is that in my own personal practice, 99% of my patients decide to come back in for in-person services.

And it's that 1% or 2% who really, truly have mobility issues and transportation issues that opted for the teledermatology visit. So just kind of interesting thing to see. So now, really, I use this form forward really as an added value to my practice. So, I allow my patients to send me photos if I cannot fit them in my schedule in a timely fashion, so that I can triage or initiate simple treatment plan. And of course, these are all established patients, not new patients. I currently don't bill for this because even though there's technically a code, it’s poorly reimbursed, if at all. So, I just do it as a value-add to my practice. Next slide, please.

I also partner with my community hospital. So that they can send me photos for informal curbside in lieu of a formal consult. The curbside volume is relatively low because it's a small hospital in San

Francisco and frees me up from having to take an hour to drive to the hospital, conduct a consult, drive back home or the office. And this is something that I'm doing. And again, I do not charge for this, but it's of a great service to the hospital. This is a teaching hospital with only a primary care program. So, they do not have dermatologists on site. And I'm serving as their only dermatology consultant for these cases. Next slide, please.

And with that, I'll turn that over to Dr. Fung.

Teletriage and teleconsultation

Dr. Fung: Great, thanks, Dr. Cheung. So, in my private practice, Dermatology Center of the East Bay, we do direct-to-patient teledermatology. We do teletriage and teleconsultation. And it's probably helpful to just quickly review those definitions because sometimes you see these terms appear in the literature.

When an encounter is patient-initiated, then obviously it's a direct patient, teledermatology encounter. If it is an encounter that's initiated by referring provider, then the first thing that actually happens is what's called a teletriage and that's basically the determination of whether or not this is a derm problem or not a derm problem. And if it is a derm problem, then does the referring provider transfer care to us to handle or does the referring provider maintain care of the patient and just utilize some of the recommendations that we give from afar?

In that setting, that's called teleconsultation or in some health systems that's referred to as E-consults. So, I have a few case vignettes that I'll be showing in just a few moments about how we utilize all these different forms of asynchronous modalities in my practice. And for us, we also have a secure, encrypted, HIPAA-compliant platform. So that's actually the new iteration of Spruce, which is more of a, again, all-encompassing communication platform. And that's what we utilize for communication between patients and our team and amongst our team itself.

So, this is an example of actual teletriage and teleconsultation. So, this is a photo that one of my orthopedic surgery colleagues sent me. This is a patient of his who had postoperative redness and swelling around her surgical site. It was quite itchy. There was no pain or pus, no fever. And he wanted to know if this was an ok situation to try a topical steroid. And given that it looked more like allergic contact dermatitis to me, than it did a cellulitis, I said, I think that's reasonable. And so, he put her on an ultra-potent topical steroid, betamethasone, and I told him, hey, shoot me a text in a week and show me the progress that she makes, hopefully.

And a week later, you can see a lot less edema. Much of the erythema had faded out to pale pink. And then another week later it pretty much resolved, with maybe a little shadow of post-inflammatory

hyperpigmentation. So again, great results, great clinical outcome. Patient I never had to see personally. Again, just was able to advise from afar.

This is a gentleman who texted our platform directly. An existing patient, established patient, who had a new scalp lesion that had been present for about a month. It was bleeding a little painful. And he had actually just been in three months prior for an overall skin check. And that was not seen. And his question to me was, hey, should he come back in? And for sure, we fast-tracked him an appointment. It's a dark lesion. It's bleeding. It's obviously dynamic and unstable. And it proved to be an atypical fibroxanthoma, so a low-grade sarcoma that required Mohs micrograph surgery to clear. A different patient who had a lesion on his back. He wasn't quite sure how long he had it.

It was actually something his wife noticed, and maybe it was a little itchy. And he did have a skin check in the books for three to four months from that time, but he wondered if he should come in a little earlier to have this thing looked at. And so, it was a great quality photo that his wife had taken. Good lighting. In focus. And I could pretty clearly tell that this was an inflamed but benign subacute keratosis. And so, I respond to him and said, you know, if it's not bugging you too much, I think it could just wait until your regular skin check.

If you'd like to have me freeze it or address it sooner, you're certainly welcome to come in. And he responded in turn that he was fine with just giving it some time. And when he showed up in a few months for his regular appointment, it actually managed to flake off of its own volition. So that was nice.

This patient sent in this photo from her right upper back, describing it as a funky blackhead that had been present for a year. And I hadn't seen her for a number of years prior to that. She indicated to me in the message that it was bleeding. She had a family history of melanoma in her mom, and she wondered if she should come in sooner. And this is a great example of a photo that is actually quite challenging to interpret. It's a little blurry. It's not particularly well lit.

So, I wasn't going to take a chance on making a diagnosis on this photo alone. So, I told her, yes, we should definitely fast-track an appointment. Got her in within one to three days, which is our office protocol, and we biopsied it and it turns out she was actually right. It was a funky blackhead. It was a ruptured follicular cyst, not melanoma. But again, the story was a little compelling. And so that's what we did bring her in a little bit sooner.

This young man, high school student who had a blister on top of his foot for about a week. His mom took the photo for him, and she said, you know, this blister is starting to get really painful. There's pus developing underneath it now. The area around the wound is getting really red and swollen. Should we go to the ER? And this was right at the beginning of COVID, when we were all sheltering in place in March of 2020. I

said, well, you know, I think it is something you probably want to go to the ER for. Especially since she had explained that he was a little lightheaded and dizzy. I said, yeah, you should definitely go. But she was a little reluctant. She was a little mindful because she was worried about COVID-19. I said, well, if you are that wary, we can try topical antibiotic, we can try oral antibiotic. But please, please, please send me a photo in a couple of days and keep me posted because I want to track this thing for you and, knock on wood, within a couple of days they respond with this photo, which showed significant improvement with topical and oral antibiotics. So, we were able to, again, make good progress with this young man's infection without actually having him seen at in the urgent care setting.

This gentleman, an established patient of mine who was traveling on the East coast, and he messaged me from Vermont and said that he had a couple of lumps that were starting to appear on his right temple, and they were somewhat tender. He had noticed them for maybe about a week or two. And he also described having some right orbital redness and swelling. And what should he do about that? And that combination of story and the photo that I saw made me a little bit nervous about giant cell arteritis, temporal arteritis.

And I said, you know, I hate to bug you during your trip, but I think it is probably worth a trip for you to go to the emergency room for this and get it worked up. And so, he made the effort to go in. And thankfully it was not giant cell arteritis, it was not temporal arteritis. But again, from this constellation of findings, from this information, I'm sure you would all agree it was at least worth sending him in for that looksee.

This is my afternoon tea break slide. And we all agree there's nothing more soothing than a cup of hot chamomile tea unless that cup of hot chamomile tea spills on your leg like it did for this next patient of mine. And so, this was also in the midst of many people in the Bay Area sheltering in place. And he was not willing to go to the emergency room. So, he and I talked on the phone. Worked out what we could cobble together in regard to home supplies, to help him properly care for this wound. What kind of ointment, what kind of dressing could we scrounge up in his home? Two weeks later, he sent me a photo. Things were thankfully improving pretty well. He continued that local wound care and two weeks later he was pretty much all resolved, which was fantastic.

On the regular, we do a lot of acne vulgaris via asynchronous teledermatology. We'll oftentimes see patients live of course, the first time, establish a relationship, make sure they're appropriate to be followed up, asynchronously. And so, here's an example of a high school student we met, who has inflammatory acne. Pretty busy with school, with extracurriculars. Most of her follow-ups were all done asynchronously, and you can see a good outcome on her. Here's a different patient, different cheek, but same story. Moderate, inflammatory acne. Here's a young professional who, again, hard to take time off of work just to make in-person appointments. After meeting her the first time, we put her on the asynchronous follow-up schedule and over a period of a few months, she also had a fantastic clinical outcome.

Male pattern hair loss or hair loss can work in this context as well. Here's a gentleman who has pretty classic, male pattern hair loss, androgenetic alopecia. And so he was started on topical minoxidil oral finasteride and was doing great. There was really no need to see him every three months, six months, what have you. We just put in an auto reminder in our messaging platform to text him in 12 months to give us feedback and a photo. And he did. And you can see what a great clinical response he had. I messaged him; did he have any side effects from topical minoxidil? No. Did he have any side effects from oral finasteride? No. Then great. We refilled his medicines and he's good to go for another 12 months.

And then the convenience of follow-up for certain treatments can't be overstated. This is a gentleman who had a neoplasm of uncertain behavior on his left cheek. And he's a gentleman who has had multiple non-melanoma skin cancer, multiple actinic keratoses. And he kind of knew something was going on his left cheek, but he did not want to come in. Transportation is a challenge for him and his wife. And he wondered, because he had some topical 5 fluorouracil in his medicine cabinet, could he try it on this lesion? I said, OK, yeah. I mean, I'm happy to monitor you if you're willing to send in photos every week for the next few weeks. I can kind of guide you along.

And so, one week into the treatment, he was starting to develop a little bit of erythema. Two weeks into it, pretty much about the same. Three weeks into it, a little bit red and raw, but not so bad that he had to stop. So, I said, I think you should forge ahead. And this is week four. Week 5, a little more scabbing. Week six yet more scabbing and he was starting to get a little uncomfortable and so I said, this is probably a good time to stop.

So why don't we now take a break, do some sunscreen in the morning, do some Vaseline or Aquaphor at night? Two weeks later, things looked much better on his cheek. And then two weeks after that, the lesion had clinically resolved. So, a wonderful outcome for this gentleman, again, showing the convenience of how follow-up can work via asynchronous telederm.

So, the goals of asynchronous telederm or really any kind of telemedicine in general, are to improve upon the following: access to high quality, high-value care; care coordination; communication; and convenience. And I hope those cases I just presented were helpful in showing some of the ways that my practice goes about trying to achieve these important outcomes. And with that, I pass the virtual mic back to Dr. Newman.

Future of asynchronous teledermatology

Dr. Newman: So, Thank you, Dr. Fung. So, a few thoughts on the future of asynchronous teledermatology. So, what I would like to see is asynchronous teledermatology become a fully reimbursable means of providing high-quality dermatologic care in our system. Again, the most

important part of a clinic, I think, is the expertise that you as a physician provide. And, however you convey that expertise, be it in person, over video or asynchronously, it has a value and it is valuable to patients.

And as we begin to explore the way to reimburse asynchronous telehealth, I think we may uncover previously under-recognized or even unrecognized areas of physician work that's happening. So as been mentioned before, how much patient care actually happens outside of the clinic visit? Outside of the encounter, when are physicians looking online for information, for resources, looking up articles? When is actual medical decision-making happening? Is it happening in one point in time or over a series of time points?

I think as this happens and as we look at new technologies that are coming out for medicine and specifically for telehealth, I think it's crucial that physicians are involved in shaping these new technologies as well as the rules that emerge for them. It's simply stated, we need to make the technology work for us. We should never be in a position where the physician is actually working for the technology.

And this is, I think, a very important point. As I mentioned earlier, I think there are opportunities for us here, using asynchronous teledermatology, to provide greater access to care for dermatology or telehealth for specialists, in both urban and rural areas. And again, as behavioral patterns shift, as people change how they talk to one another, I think that we as physicians can actually use this to our advantage and take advantage of these technologies, not only to communicate better with our patients, but to better educate them as well. I think asynchronous telehealth presents us with many opportunities to shape our best practices, how we run our clinics, our operations, and to provide patients with absolutely, excellent care. And with that, I'll hand the microphone back.

Panel discussion

Lim: All right. We'll now move into the panel discussion portion of today's agenda, and I welcome all of the speakers to join back on the screen. We have a few questions for the panel to get the conversation started. And again, we welcome questions from the audience. If you have a question for our speakers today, we invite you to drop that question in the chat or use the ‘raise hand’ function during this time. So, to get the conversation started here, for those that might just be getting started in adapting telehealth for dermatology care, where do you suggest they start? What key aspects of implementation should they consider?

Dr. Cheung: Well, I'd like to take a stab at that, Bernadette, if that's OK. I think that first of all, if you're just starting in teledermatology, don't try to recreate the wheel. I created the wheel back in age because no such technology was available. But nowadays, a lot of the EHRs that physicians use has

some sort of capability for photo sharing, that are HIPAA compliant. And so, I would look at the EHR modules that's currently available to see if you can adapt it to your current workflow. Again, as Dr. Newman said.

You want the technology to work for you, not the other way around. So, you want to make sure that it adapts to your workflow. So, elements would of course, include high-resolution, photo sharing. Some sort of email messaging that's HIPPA compliant with the patient. And then having all that integrated so you can actually generate notes and have documentation. I think that's what I would look at in terms of starting it in your own office. I'll leave it to my other two colleagues to maybe chime in on this.

Dr. Newman: Yeah, I'd like to actually jump in on that as well, because it depends on what you want to do with it. Do you want to treat your own patients, or do you want to go a little broader geographically? Do you want to treat the state you're in? Several states? There's a lot of things to consider when you start expanding and you could talk a lot about this. I mean, I just highlight a few things that if you're going across states, think about regulations, medical licensure, where you're going to be practicing. Make sure that your documentation has all been reviewed and is appropriate. Now, this is, when we started doing this, we had to go to attorneys.

Now there's a lot more whitepaper out there to make sure that your documentation meets the requirements for HIPAA, federal and state levels. Make sure you have BAAs with every vendor that you use. Know what you need to do to be compliant and stay on top of legislation. Because telehealth legislation is constantly changing and it's changing differently in every state. Like Dr. Cheung said, yeah, technologically an EMR could probably cover most of it, but if you're going across state lines, make sure that it does. And finally, think about professional liability, to make sure that your insurance plan will cover you for such services.

Dr. Fung: And yeah, I would concur that working with your existing EHR vendor is definitely the best start. And if they have a telederm, telehealth module, it's the shortest path to getting started if you haven't really gotten started yet. They offer the best support and there are standalone communications platforms, but those can be a little bit tricky to then integrate or interoperate with your existing system.

A couple of other things I would add would be costs, just be cognizant of that. Sometimes these modules are add-ons to your existing EHR subscription. And don't forget that sometimes it may mean more staffing. You know, we have found that with the increase in communications from our patients, the messages, the volume in our inbox is just really overflowing. You have to have a lot of capable front desk or back office to help manage some of that.

And so that does require more staffing and be cognizant of that issue. And then having a good protocol in place. I think all of us agree that if you have a good system down on how you want that workflow to look like in your particular office setting, it's really important. Like Dr. Cheung, we had already been doing a lot of asynchronous telederm pre-pandemic, so we kind of had our system down.

We had our workflow down when our office was forced to shelter in place. And when the patients were forced to shelter in place, we were still able to keep things going, keep attending to patient's needs. So again, establishing a good protocol that makes sense for your particular offices is pretty critical as well.

Dr. Newman: I'm sorry, I did want to add on to what Dr. Fung just said and something that I think is a little bit, is nice about asynchronous telemedicine, is that technology is constantly evolving. That they're going to be, tomorrow's EMR will make the one we're using today out of date. And it's hard for us to integrate that, especially if you're private practice. How are you going to use that?

The nice thing about asynchronous telehealth is that the technology is already there. It is very easy to use. It's not really going to need to be upgraded, not by very much that we can see, and people are already using it. So, I think it's a rather simple but also elegant system at the same time.

Lim: Great And just a follow-up question to that. I think, Dr. Fung, you had mentioned use of text messaging in the original technology at Spruce, and from your experience, do patients expect a faster response communicating via text versus maybe an email communication via the patient portal? And from your experience, how can you manage that or how do you have any recommendations on that?

Dr. Fung: Yeah, it's a great question. I mean, that's always a big concern, I think it's sort of like, wow, once you open the floodgates to messaging, how do you then turn off that deluge, that could potentially happen? And I think it's, there are actually built-in systems in our particular messaging platform, the one that Spruce has given us, that allows for scheduled responses. So that's actually a big, sort of practical tool for us, where patients may send a message and we'll maybe send an automated response that said, say, oh, well, we will definitely get back to you at some point at the end of the day. We have that already templated.

But we also, like sometimes I do have a moment in between patients where I can take a look and oh, OK, I can really quickly answer that message, but maybe I don't want to feed the image that I'm constantly on there and responding within seconds. And so, I can still schedule that message to go out maybe in half an hour or an hour or at the end of the day.

So, there are ways to utilize these tools to still benefit the patient, but maybe not such a way that it builds this culture of immediate, on-demand responsiveness that maybe some patients are really, really looking for, but may not be practical from our end to deliver on.

Lim: Dr. Newman or Dr. Chang. Anything else to add?

Dr. Cheung: I would concur with Dr. Fung. I think a lot of this is really just managing patient expectations. A text message is really no different than a phone call or a message to my EHR system. And so, I think if you set up the expectations that we'll get back to you within a couple of business days, then patients aren't always checking their phone to look for a response. And I think that really

goes with all aspects of medical care. It's just managing patient expectations.

Dr. Newman: Yeah, I absolutely concur with my colleagues. We try to bring it up front, several times mentioned, that we try to have a 24-hour response time to any message. They do get an auto-responder message through our system that says, yes, we've received your message. And we have. It notifies all of us that the patient has a concern. If the patient keeps sending multiple concerns, we do get those. And that just highlights for us that, OK, maybe we need to respond right away. But we do try to manage the expectation that we're not there waiting by the computer, or by the phone for someone to send us a message.

Lim: All right. I'm going to turn it to the audience. Eliot Mostow has a question and feel free, I see your own video here, you can ask your question live. This might be the million-dollar question, so curious if our speakers have any insight on Medicare's plan for future reimbursement?

Mostow: Go for our guys, it just seems like that's the rub, right?

Dr. Cheung: Yeah, go ahead, Dr. Fung.

Dr. Fung: All right. Yeah, well, I mean, I think right now, you know, I as much as I value, you know, the response times my office can give, that my practice can give, to these patients. You know, it is still it is still a challenge. We do it because it really is good medicine. We do it because we're trying to do right by the patients. I wouldn't say it is sustainable in the way that it is being reimbursed right now. But there are codes. You know, there are codes. There are asynchronous codes.

The existing phone appointment codes and the video codes, which basically parallel the regular, in-office visit codes. And at least for now, it's doable. I will be really curious what happens after the public health emergency is declared over. Not sure how things are going to look thereafter. But yeah, you know, right now I try to focus more on just like, hey, I feel as though if I can, for some of these patients who are lower acuity, lower complexity, if I can virtually close the loop for them and save them a trip in, then I've at least saved one appointment slot for somebody who maybe has a higher complexity, higher acuity issue. Maybe I've improved access in that way.

And so I guess, long story short, the reimbursement piece is still a work in progress. I try not to think about it. I just try to focus more on what I feel like is appropriate triage for the particular patient, for the particular situation that they have. But that's all still to be determined.

Mostow: Yeah, but I guess in follow-up from all of you, I mean, there's no question that, especially with COVID and getting video reimbursement like an office visit, no question we can do this, especially for certain situations. You all gave great examples. It's what we're trained in as dermatologists. That's a no brainer. If the reimbursement is $10 and it’s taking x amount of time, it just doesn't work. And so, the long term, you know, either you become a boutique service, which is fine and that's just one

option. But I think the future is, I don't know the answer because even with the COVID, the reimbursement for phone and asynchronous is still pretty low right? Or am I wrong on that?

Dr. Fung: Well, yeah, well if you do pure async so in the way of, so there's that g-2010 code, which is sort of the classic asynchronous telederm code, and that's where the beginning and the end of the entire encounter is virtual, right. It's not like it came from a preceding visit within the preceding week. It's not like it led to an appointment one day later. It was all completely self-contained. So, you can code that.

But yeah, it's, it's somewhere in that I think $20 reimbursement range. And so yeah, I think that part is what it is, the phone appointments actually, if you pair the like for example, photographic analysis, photographic evaluation with the phone call afterwards, the phone call actually is, at least right now and through 2023, in fact, will actually be reimbursed in similar fashion to your 99212 to 99214 actually.

Eliot Motsow: So, you know, and that sort of landscape gets tricky, but I certainly appreciate the presentations you all gave. There's absolutely no question this can be done. It can be done efficiently. We've sort of set up our own triage for doing Zoom telemedicine with the scribe, and that works for us. It's just like an office visit and they're not cluttering up our waiting room. But the store-forward concept to really leverage it, I think is great. Thanks.

Dr. Cheung: Yeah. I will add that both the AMA and our specialty organization ADR, understand the reimbursement issue is an important one. And so, there is active advocacy being pursued from our organization. So that is something that is on their active issue list. And I would expect well, I know actually, there are several resolutions coming up at the annual AMA meeting that deals with some of these teledermatology issues. So more to come. This is just the beginning.

Dr. Newman: Yeah, I just add to what's already been said. Great question. This is this is the big question that we need to ask, as you saw. Asynchronous is a little weird. Asynchronous is different from the way we are doing most CPT codes. Even live video is similar to an in-person visit. It's just, you have a camera, and the patient has a camera in front of them. And so, you're just working through that.

This is not quite all work done at one time, so it's going to be a little different model, but I think it's that much more important than that we physicians get in front of this because the rules and the CPT have to be reflective of the way that we're going to work. If we start arbitrarily assigning time limits for certain conditions, I don't think it's going to get traction with the rest of the medical community and it's clear that there is a use for this. And I think the pandemic has shown us that we have a huge opportunity to make our health care system that much better using this kind of delivery of care.

Telemedicine for dermatology resources

Lim: Great. I'm going to move to the next question here from Amina. What conferences or educational groups would you recommend? For example, telemedicine societies that have the best information when starting a telehealth service within a hospital system.

I'll just do a quick plug here. The AMA, we have many resources on this. We, a few years back, actually prior to the pandemic in 2019, we developed what we call the telehealth implementation playbook, which really was developed in connection with many, many health systems across the nation.

And we've since then updated that as well. So, it's 150 pages and has a whole number, a whole host of just worksheets and checklists and things that you can kind of pull a page out of to use for your own implementation. So, I would suggest that. And then I would also recommend ATA, the American Telemedicine Association, they have a variety of resources as well. And then speakers, I would open it up to you if you know of any others that you would recommend.

Dr. Cheung: Well, I think the AAD also has some resources on this. So, you may want to check just that, the web, the numbers page portion of the AAD website.

Dr. Fung: Yeah, they do. They do have a support system for dermatologists who are interested in trying to establish relationships between their practice and local hospitals or other institutions.

Lim: Awesome OK. I guess like last question here, we've just got a few minutes. Would love to just know, what are your plans to just further telehealth in your organizations, or what do you think the future of telehealth looks like for you? Would love for you to share. And then if you have any other final thoughts that you'd like to share with the group as well, we would welcome that.

Dr. Cheung: Sure, I'd be happy to take a stab at that first. So, things that I think could come, would be something like artificial intelligence. And by that, I don't mean that it's going to become an artificial intelligent dermatologist. No. What I mean is that it's going to be a toolset that is going to allow the dermatologists to be more efficient and more effective, just like any tools in your office. It doesn't replace you, but I think that I can spot patterns that could query and make you think about differentials that you may not think about.

But it doesn't replace a dermatologist. Just like one of the things I like to point out is we all have those medication checkers in our EHR and it doesn't replace you because they always find these interactions that are weird, like topical steroids with other weird things. And it just doesn't make sense. So, it's helpful sometimes when it brings up a warning, but again, it doesn't replace dermatologists.

And the second thing would be new technology. And I was working with another startup that was trying to create a dermatoscope attachment for the iPhone, so that patients can take dermatoscopic pictures and send it for storing for review. And unfortunately, you know, the 3Gen was able to come up with this first because they are the largest scope maker in the US. And so that is not available.

So, the question is, how do you leverage that technology? I mean, do you have a patient just send us unlimited dermatoscopic images and track them? Nobody knows. But it is a technology that is here already and can be utilized effectively in your practice, if you still want to do that. So, these are some things that are coming or is right at the horizon.

Dr. Newman: Yeah, I would just make a comment about AI that I agree. And the image that comes to my mind always is from Star Trek, when they had their tricorder that would basically give them all the information that they needed, but they still needed bones to put it all together and to execute the treatment plan.

So, I hope that, I would envision AI being another tool that we use as physicians, but not a replacement for what we do. And there are other reasons for that, and that our understanding of medicine is constantly changing and our understanding of disease and how we treat it also changes. So, to take our subset of knowledge that we have today to provide it to a set of software, it needs to constantly be updated and we're the ones doing the research. So, I think that's how I envision it.

Dr. Fung: And I would say, I think it's really exciting to see a lot of the apps and other tech solutions that are being developed right now, that are more from the patient side of things. I know that is all by design to try to increase patient engagement with their own health, increase patient partnership with their existing providers.

Whether it's an app that maybe encourages you to have that mole checked out by your doctor or have that rash looked at because maybe it's this or that, you know, a lot of it all just sort of is geared towards helping patients have more knowledge and to try to lower that threshold for them to maybe think about reaching out to us. And then on our end, I think what the future kind of portends with dermatology is just to, I think, continue to just leverage the technology, and know that the technology is evolving so quickly.

And there's going to be new things that we keep bringing to bear on our patients to try to increase and improve that quality of care and improve that access. Which I think is really the biggest thing from my end, is just trying to make sense of getting patients into the slots that make sense for their particular situation.

And that takes a lot of active schedule management. You know, like I think my team is probably, particularly annoyed by me, by how much I'm always trying to micromanage, like this person's OK to be asynchronous, this person should be live and in-person. But it’d be nice, I think, if from the provider

end that there are more and more tools that are developed that just help us to more conveniently and efficiently identify those patients. And it's going to take always some human input, for sure.

And maybe that's just more on us to continue to train our team, our staff on our end to recognize those moments. That for me, that's the future, continuing to try to leverage that technology and improve upon proper patient placement into one setting or another.

Lim: That concludes our programming for today. Special thank you again to our speakers, Dr. Cheung, Dr. Fung and Dr. Newman. And thank you all for joining us. We will see you next time. Thanks.
