Please stand by for real time captions.

To everyone in the room welcome. I know there's going to be an introduction in the moment, we will wait until everyone's gotten online.

Good morning everyone. This session is the 2020 Dry Needling, TPI, Pins by Dr. Byerly and Dr. Andreotti would like to remind everyone to silencer their phones. We also want to give you a reminder that the presentation, the bio, the handout and the agenda, as well as the sign-in sheet can be found in the files pod. You would download the sign-in sheet, fill it out and return it to the email addresses that you find in the chat box.

To give you a brief description of the bio, Dr. Kitara Byerly has been practicing acupuncture and medicine therapies at military treatment facilities and the VHA in central Texas since 2011 she started her studies in integrated meta-such as yoga and tai chi while at Hunter College in New York. She finished her bachelor of arts in theater in 1999 and she spent the year in residency training focusing on mindfulness meditation right key and yoga therapy from 2001 and 2002 after teaching yoga in South Dakota for two years she moved to Austin, Texas to begin her acupuncture degree. She became inspired she joined the Navy reserves as a specialist in 2015. She did her doctoral thesis in July 2018 and was awarded her doctorate of acupuncture in her underwriting writing philosophy that she drank deep in the well of knowledge she has her to the University of Texas Tyler. She has attained the rank of a petty officer second class Navy reserve and practices acupuncture at CR EA NCAI BMC footer at Texas.

We also have Dr. Marcella Andreotti DMP APA Rian at MPC which her bachelor science in nursing at University of science nursing she is board certified as a nurse practitioner. Dr. Andreotti is fully trained and she is also the trade instructor coordinator at Fort Hood IMB clinic managing and supervising treatment modalities such as chiropractic, acupuncture, massage therapy, and movement therapy in addition to adding pain management therapies to Ft. Hood soldiers. Everyone, we'd like to thank you and welcome you, again. I will now turn over the floor to Dr. Byerly and Dr. Marcella Andreotti.

Welcome to the training.

I'm so sorry, please go ahead Dr. Andreotti. I was just telling everyone good morning.

Good morning.
Oh thank you, so today the training is going to be over trigger point injections, percutaneous tibia nerve stimulation, and dry needling. And welcome to the room. I see a lot of dutiful familiar faces online today. So, we are going to start with a few different introductions, and a few questions for our participants.

Now, here I am currently today on active duty orders for the Navy so, I am here not in a capacity of Fort Hood not in the civilian job, but from my Navy safety side. I just did get a promotion, so I am and 86 first-class petty officer. That's really good. We sit in that bio just a little

bit ago. Thank you to everyone in the room. Let's start with our first slide about trigger point injections. The needling of the wood were needling for pain needling is a lot like real estate. It's all about location, location, location, and that's one of my favorite jokes about acupuncture and needling and dry needling. We did talk about how those techniques connect and how we can really start using these different techniques immediately in medical practice in military treatment facilities.

So very first off, the disclaimer. We have no conflicts to disclose. No reference unlabeled or unapproved use of devices or drugs. We have no financial interest in this lecture or the study. And statements and opinions are advised of the authors and do not necessarily represent the views of the United States government or any affiliated institution. I do that because it's on the first disclosures. This certifies that Dr. Byerly and Dr. Andreotti have not nor of my spouse have any immediate gifts in the last 12 months with relevant subject matter to this presentation. And then again, our views are not the views of the Department of the Navy, the Army, the Air Force, or the Department of Defense or U.S. government.

Thank you for coming to this for our didactic training. We will have regular breaks 15-minute breaks every hour. This is on trigger point injections PENS and dry needling. A little bit of housekeeping. I know everyone's online at home. I'm here at the Naval Construction base, and it is a naval training base in Gulfport Mississippi. And I'm in a room and we have three medical providers here. We have three medical providers, and then we also have five or six Corbett in the room. Five medical core men in the room. They're taking this as an educational closet and they’re very grateful for the presence and I'm grateful everyone is present here online. Thank you for joining us today.

As a matter of housekeeping here, the fire exits are out the door and straight down to your left or straight out the back to the right, there's also the back restrooms the heads are over there because were under COVID-19 restrictions there are no water fountains. I would just let you know. Okay, so in case of an emergency, we will gather and muster at the front of the building in case of emergency.

Thank you very much to all those online, all participants online we are going to go ahead and get started. These are introductions. So, we already went over our introductions and I'm that is the invite about me going back and getting my second Master’s degree and MBA in healthcare management, the reason for that is I understand that in order to get the techniques of TPI/PENS acupuncture and pain management out more to the defense health agency as a whole, I needed more experience in terms of how to bring those in administration level two different facilities. So that was my goal in furthering education. So, while we are here, we are going to introduce the providers in the teleconference and also the providers that are here in the room.

I would like for folks to say their name, medical professional background, challenges to your practice at your facility, in terms of non-pharmacological therapy for pain management. So, any challenges in

terms of bringing patient pain relief that does not involve pharmacological therapy, right? And then what do you hope to gain from this class.

It's a four hour didactic course. And we're going to start, I don't know if everyone can see this on my presentation site I can see online Dr. Robert, I can see he's one of our first, I can see everybody on the chat room in the side here it's listed in alphabetical order. I would like to if possible have you unmute your mic and please just call out your name medical professional background, and in challenges and then what you hope to gain from this course to meet each other, thank you very much.

Hi, good morning. I'm so sorry, just for the participants in the room. I will adjust my speeches here. [Indiscernible - static]

Dr. could you just mute the microphone while the speakers are doing their introductions. I apologize doctor.

Great to hear your voice today by the way. It was great when you can do unless you to do the class I'm excited to join in here today and listen to this presentation again. I'm in the osteopathic family position. Pain medicine physician, the mix of the introduction of I'm at Fort Bragg. I don't think we have any particular challenges other than not having enough people to provide the techniques. This certainly is a lot of what our soldier's population is looking for. Dry needling, TPI/PENS and percutaneous tibia nerve stimulation. I don't agree have any particular challenges just a lack of a number of people. We just brought a new licensed acupuncturist on board. Pretty much, all of us to trigger point injections. But we are always willing to observe other people's information to see if there's you know, just a basic refresh. Something that I can pick up that I might've gotten in not doing quite as frequently recently. So that's hopefully what I can get out of this to today. Thank you. Over.

I read. Thank you, so much. Makes were going to go for
[Silence]

Yes ma'am. I may have folks do, begin typing and if possible and we're next on the A's, and then there's Brittany, and then we can keep going with that. It says no microphone, so, I have got to Dr. Travis Peterson no microphone. Family nurse practitioner certified acupuncturist.

Busy with regular clinic in admin duties for not a lot of time for complementary and alternative medicine. I do the treatments all the time but not a lot of dry needling. I'm looking for another tool in the box.

Because were having a little difficulty with our microphones, see a lot of people are saying no Mic no Mic, they don't have a mic. And I'm really grateful that Dr. Dr. Agnelli was able to present because he is one of our best battlefield acupuncture trainers around the defense health agency. So hopefully we can talk a little bit more here. He will be able to share a little bit more about his experience in teaching battlefield echo puncture that's how that different. I'd appreciate that once were done with that dry needling portion. Thank you so much. Anyone else? I'm

looking for Dr. Airey Beth. Susan Air Force health position. She's gaining tools on keeping pain management tools within her facilities instead of referring everything out.

I'm going have our practitioners around the room introduce themselves at this time. We have our provider hear from Gulfport, Mississippi detachment. I'm going to go ahead and pass the mic to them so the name medical recessional backbone, challenges and practices and what you hope to gain for the course. We have three providers here.

I'm Commander Patrick Smith, family nurse practitioner. I'm also a reservist in here on mobilization orders. At home I work in a family practice clinic where we deal with chronic pain, pain management, because pain management CEMEX are overwhelmed. Then over here to learn some new techniques to utilize so we don't have uses many pharmacologic agents. Thanks for being here.

Commander Jamie Reddy, family nurse practitioner for almost 20 years, I worked for the VA in acute primary care clinics. And I have been studying and practicing tai chi for over 35 years, I am a final student of General Abraham Lou. Who is a senior student didn't and of course I've done several different types of child she and study between the, and used Chinese medicine in my practice at times. I'm here at Gulfport, the mobilization with Commander Smith.

Good morning, I'm Lieutenant Jonna Hobbs on the operating room nurse. I am in the operating room for medical staff so, I was interested in a better understanding of these techniques.

Thank you, ma'am. And then, so, turn your attention to Dr. Andreotti for just a minute, we will continue with those introductions.

Hi good morning, I did my introduction already. I did forget to add that I am a professor at Chamberlain University for the past five years. I teach in their family nurse practitioner program. So, as I'm reading here, the introductions, and I'm listening to the needs, it seems to me that the most pertinent things is that you do track practice on trigger point injections. So, what I think we'll try to target the need of the participants in terms of learning, and I would like to put a focus on this on dry needling. And PENS where people don't have a lot of experience and, so, please if that's what we need here, please make sure you make that known because will be able to adapt so we can focus on the area that you can gain the most and taken to your practice by the time you leave here today.

Excellent. So, we just have a few more people typing in their introductions. You know in a typical classroom, we would have that sense of a large space, but here we are, so, the people that have taken the time to type in the introductions I'm just going to read them off real quick because I am tailoring the class to the providers who are here today.

Dr. Vincent is a pain management fellow at Walter Reed, as a last of the family physician for the last 10 years been using adjuncts like dry

needling trigger point injections to treat the patients for the last seven of 10. The biggest challenges time. It's hard to fit in a 20-minute appointment when you only have eight minutes with the patient. And we do hear that a lot. So I do have some suggestions about that, Doctor.

That's great.

Dr. Kathy Miles public health physical therapist, specialty and pelvic and sexual pain. Dry needling training completed. Looking for clinical pearls and how others have integrated this into their clinical practice in the military medicine. Wonderful. Welcome. Figure very much.

Dr. Kathy Lawrence, good morning. Physician assistant at IBM see, no microphone today. And then, Dominic Ferdinand psychiatrist, Dr. Ferdinand, acupuncture trend, not yet credentialed. Military health department. Not in pain clinic.

And I'm just reading these off of the practitioners in the room. They don't necessarily have these notes available so I will be reading of questions as well. Mr. Vernon, an acupuncturist at Ft. Hood, welcome to the call, good to see you here. You got a Master’s in acupuncture integrated medicine.

I’m Brittany, Dr. Brittany, the only nurse practitioner at Wilford Hall been in family practice for two years, look forward to putting a few tools in the box for non-pharmacological integrated therapy techniques.

Time is benefactor or in integrating techniques into the clinic. This is my capstone on my MBA project. How are we going to get from where we are right now which is there are few providers who have these techniques, but don't have time to perform these techniques in clinic it and then we have a few areas of specialty where we can bring the patient and how can we mix up the deck of cards a little bit better so that we are getting these techniques more and more into different areas where they need them for acute care.

Primary care, we can talk about that a little bit and then how there is a specialty. It's like the integrated pain management and the integrated pain management clinic where we're offering these techniques. Dr. Lee has not performed these techniques myself, but would like to learn more about them. And Dr. Captain Crow. The second level one dry needling worked with PENS and the civilian setting very good. Dr. Fowler, Hope Mills medical home in wall make as the new clinic pain champion. Has gained proficiency in BSA in hopes to gain more knowledge skills and guidance for trigger point injections. Wonderful. Welcome everyone to the training.

Okay, we're going to go on to the next slide, so the course objective today, please keep typing in, bring up those introductions as we have questions, if you raise your hand, try and bring back the introduction and just because I am Navy, we have to follow point left one we have Walter Reed going to NHC in Connecticut looking for more tools for the toolbox. And to get credentials. Wonderful. Okay. Very good.

And a Dr. Swanson is a DL. Great.

Starting off with our key objectives, we are hoping to understand key findings in the very stick eggs and military treatment facilities standards of care. This is for non-pharmacological therapy, Trigger point injections. We can review evidence supporting trigger-point therapy. And also learn about indications contraindications for needling and pain in pain management clinics. And learn the proper trigger point injection PENS and dry needling safety. Course for TPI dry needling therapy and PENS techniques. This could all be one day separate events within the health agency. Many providers already hold the brick credentials I need to perform these techniques at their facilities. So today we are going be going over some very basic very good techniques you can use right away at the clinic back. If there's a provider already using these techniques, and your credentialing department checks you off on using these techniques, and hopefully you can take just one or two of these and apply them immediately to stop pain. And if you are at a facility that provides more: ensuring maybe we started you down that path. Please feel free to contact us, if you have any questions, or our contact are in the PowerPoint but will give your contacts at the end.

Course schedule. I'm sorry we flip flopped on the time a little bit. But the first hour were going to go through, introductions, but through our legal aspects of training trigger point injection pins dry needling techniques at Defense health agencies. And also, the joint commission standards for pain and care. And then we can have a little break. We will go on with her trigger point techniques another break, and then practical applications of dry needling and another little break. And then we are going to discuss our techniques. And again, here's our civilian email addresses at the end of the presentation I'll go ahead and list my personal cell and email and civilian email as well. If you have any questions, feel free to reach out. Okay. We’re going to start. By the way, Stephanie doctors, Stephanie regional health command Europe leads for TPI and a background in physical therapy interested in dry needling it as a physical therapy technique and for pain management. Welcome. Wonderful.

We do recognize that this is an online defense health agency pain skills conference. It's a wonderful opportunity to connect with many different providers around the globe in the defense health agency. I'm going to start my webcam here.

All right, Dr. Marcella Andreotti, start on the opioid crisis.

Good morning everyone. So, as we know, I think we all are in practice right that we know that opioid it is a big issue in the United States at this point. So, this is actually one of the main goals of us and our designation. I've been practicing at Ft. Hood for five years, and I can say that I can literally count how many times I have actually prescribed opioids. So, it's actually not a common part of my practice at all. So, we rely heavily on modality to help our patients to stay away from opioids.

The modalities are such as acupuncture, and TPI/PENS IDSA is a great help to help us combat this crisis that we are currently going through in the United States. Opioid addiction when combined with intervention and alternative train pain treatment modality has been effective in our clinic and keep patients away from opioids. And so, I'm really passionate about this modality treatment. When it comes to providing for the opioid crisis. Do you want to add?

Yes. Thank you. So, as we know the opioid crisis is ongoing and the Army pain management systematic review came about 2000, believe it was like 2009. And that's what started the IP MPs and military treatment facilities where they recognize that the opioids were becoming a larger and larger crisis treating pain with only medication is an unsustainable cycle. And they were looking for other therapies. And I believe that medication for pain is wonderful. I think, as an acupuncturist I don't feel like people shouldn't be taking medications, I feel like of course we need pain management medication, but we also need a variety of tools to treat the patient long-term and pretend scar tissue for building and certain areas that gets mass climbing pain medic and medication.

That's why we've got acupuncture at military facilities. We can cover that in a little bit. But the opioid crisis is still ongoing. COVID-19 night right now is our priority. The pandemic is going on is our priority. But the opioid crisis has not abated. Virtual provider can be contracted for opiate medication and pain relief. I don't know if you've seen any of the new commercials. Transit the commercials online. Have gone to phone and calls and delivered prescriptions. And that's pretty scary during the COVID-19 crisis. We know that drug use has increased quite a bit. Now this is historical rates that we're looking at and these are the prescribing rates for 2018.

I went to go through that map a little bit more in depth, but if you look at where the areas are red, that's a very high amount of prescriptions per person in that county area. And it's from the CDC website. So, opiate addiction is putting patients at risk during a pandemic, especially. And that could cure is sometimes worse than the helmet is well as pain medicine. Longtime pharmaceuticals sometimes their long life and lying long prescriptions. Medication needs to be there. Of course, pallet of tenant care and medication needs to be there. But where can we insert the techniques sooner into the pain cycle? Where can we stop the mapping of pain on the brain? My goal is to help empower physicians across the defense health agency with these techniques immediately. So, physicians, providers, physical therapist with this technique in the sense of competency about these techniques so that you can start going forward and not have to do as many prescriptions.

Now sometimes it's not opioid, it's other medications that help out with pain relief, but again, how often when prescribing pain medication, you know, do you hear the patient been told, there's no end to this. You know, there's not an end goal on this refill. Of Celebrex, or its [Laughter] [Indiscernible - overlapping Speakers] with to put you on this for three months.

Go ahead Dr.

So, I've got to look at this and opioid use. I take it to heart with an expense I had is an early clinician when I started seeing the cycle started. Sometimes you can easily trace it to review a patient's record and it starts off real innocent and as a real legitimate treatment. I myself entered patient years ago they came to see me and I was in for primary care the time. He had a legitimate pain, so he started on a little bit of opioid and he kept coming back asking for more and so he was still healing, then I started noticing that he became a habit and he would go see other providers, and then I decided to do a state check in next thing I see that patient was collecting 1200 pills of Norco within a month. And then I realize, we need to do something because the patient is here so frequently. And that was a very short time that it took for that patient to get there.

So, I believe there is a place for opioids, for pain medication, that's when we start treating patients, we need to think about all the risk even at the onset because you don't know whether there's a long-term use for addiction. So as we add modalities, we create the need for the patient and increase the frequency of dependency on pain medication. Are they learning how to deal with that from subway other than just medication? And to rely on it. And there are other things that were not discussing here right now we can also add for example, I have a tremendous success in practice since I've added to our treatment. I do quite frequently with patients, and I see no health addiction with their pain management that there are a number of things that we can do. So this is really important that we can help our patients to control their pain without treating and creating another problem with them for opiate addiction.

And hand-in-hand with that. His time with the patient, I'm not suggesting we request much more time with patient. We are on current restraining clinic with in terms of time management guided by setting up some of these tools beforehand by making sure that we have access and train to provider medical providers you know, the battlefield Acupuncture budget, trigger point injunction, dry needling techniques available to them. It may be a side room. We're going talk through how to position your patient so that you can maximize your medical support staff to help integrate these practices into your facility. But that is definitely, the tools that we use, the tools that we have available, and you know, currently our medical staff is providing compassionate care how they can, it's just under time constraints, and with the lack of tools, the medications are sometimes the most easy to deliver compassionate treatment. We do recognize that.

So opioid crisis patient testimonial. So, Sub Oxone has been billed as a longtime opioid therapy. And going online, you just research it and opioid crisis and patient testimonials. You'll see people really talk about how it's more addictive than heroin. And it's harder for them to get off than heroin in different studies our patients are not able to get off Sub Oxone. It's not necessarily a cure, is a long-term opioid therapy yes. Is it opioid addiction therapy? Yes, is it a cure, no? It's not a great cure. It's like we don't have a great techniques and tools across the board to provide those. So over prescribing for pain. Pain is a

symptom, and it must be treated. Definitely that's where we are currently.

Pain is a symptom and must be treated. We have limited choices for short-term and long-term relief. But the nonsterile anti-inflammatories have side effects that have grown, and we understand those impacts on the body. And providers need an immediate same-day therapy solution for pain relief. Again, this is just counting prescribing rates in 2018.
And, looking here in Greg Texas, Grant County Texas, the prescribing rate was equivalent in 2018 to 212 opioid prescriptions for every man woman and infant in the county. So course there are areas that are being used to generate the opioid crisis. Just like that small county in Texas. In the 2018 there was enough prescriptions in that County for 212 prescriptions for every man, woman and infant in the county. That's a problem. [Laughter] somebody is not checking those numbers there. So, you know it does happen, that was 2018. So were going to go on. Why non-pharmacological therapy for pain relief?

So, this is a military health system step care model for pain management. If you can look, we talk about managing pain first at the self-care level. Right, so I've got a little neck pain, back pain I'm going to stretch out to PE -- A little lighter maybe all I sit by myself, the next level is the primary level. And so, that out of the outer bubble you report to sick call. And the PCM they read prescribed breast ice, few days on quarter, and then you are PCM and then the primary level the patient centered medical call they will also sometimes prescribe physical therapy from there. The next secondary level we are talking about within the medical neighborhood, and here you are going to clinical pharmacists or physical therapy, or more intense therapy and going back and forth with your PCM over that pain. And then on the tertiary level, this is where we did the pain specialist and the integrated pain management clinic.

Anywhere in this continuing you could've been prescribed nonsteroidal in anti-inflammatory pain medications. But how do we take that and bring it into the third trigger point injections and start sooner down there that can Tenniel move the primary care patient centered care medical home. How do we get those techniques in this sooner? That's her trainings like these, we have a provider who like to work with patients on a regular basis, how can we get those quick fast techniques and. And also make sure that we are adequately coding and billing those techniques. So low risk. PENS/TPI, dry needling these are considered noninvasive therapies. It's a small needle. And they are effective, they're less invasive than other procedures such as steroid injections, epidural steroid injections, they're less invasive than that with downtime, and they can reduce pharmacological prescriptions over time as part of the physical therapy or cognitive behavior therapy for pain programming.

So, by the way, if you have any questions, please feel free to type in a question. You can also raise your hand and callout the mic. Or, you know, like in the room, please shush me Shannon asked the question. We do thrive on questions. Pretty soon we're going to be taking a break here in about the next five minutes just to let you know.

So today are topics of needling a B on the regulations and procedural instruct since of the DHA, approved medication for trigger point injections. The supplies would need in clinic, a Doris of trigger point injections, duration of treatment safety and F the -- Efficacy. We has a materials present around the room if you want to you can go ahead and spread those out. Those are just, got some papers here in the room on trigger point injections studies and the effectiveness of dry needling. So, the first is defense health agency procedural instruction 6025.33 it's a regulation and procedural instruction on the physical therapy, I'm sorry. [Laughter] I had a different slide in here, so it's on pain management. And myofascial trigger point needling. I guess this is a needling.

This defense health agency procedural instruction it's on dry needling. Will go to the next when you get that at one.

Next would be 6025 point 04. It is a procedural pain management instruction on the joint commission will enforce new pain assessment and management standards and accredited hospitals. So, this is part of that regulation that we're going to be governed under. And then currently under Ft. Hood hospital were working with the Army regulation zero Ford e-72 the hospital will respect the patient's rights to participate in decisions about their healthcare treatment and it goes on and on.

So, we are currently under COVID-19 guidance. In terms of our military health care system and what we are and not allowed to offer. I will say just going into how to see how COVID-19 changed our clinical practice at Ft. Hood hospital, we went from seeing 24 to 18 patients a day for acupuncture and those medical appointments were usually 20 to 30 minutes that was been with our patient so we will with from that to not being able to sing our patients and using telehealth. And our telehealth acupuncture sessions offering techniques such as stretching, when from neck techniques any kind of movement, range of motion whether that's acupuncture pending techniques pending the pain and moving from that is all. So, we did try to utilize some online techniques for meeting with our patients for video teleconferencing.

Then we went back to clinic in a very limited way to about six patients a day after that. I've been on military orders since July 20th, so I have not been back to clinic since then.

And Dr. Andreotti, is there anything you wanted to say about how the COVID-19 has changed your clinical practice with trigger point injections and techniques?

And I see, let's see, can everyone still hear me? Well, let's see, we may be having some technical difficulties. I see yes you can still hear me.

So, since PENS is not invasive and is standard procedure consent still needed?

If it is needed, and it's a good practice to collect consent at least on a monthly basis but at every session that is all right. So, our legal team has said that since patients are in the eye PMC for certain amount

of care one consent under another primary care physician covers all of their treatment at the legal department at Ft. Hood Texas. Having a consent form with every form of therapy no, that just covers you. So, we are fine.

So, here is our trigger point injection common sites. So, trigger point that cause pain at a physical look casing and referred pain to other areas in a specific pattern. They were first identified as external trigger point in 1942. They do correspond acupuncture points on what we call Meridian lines. When we dig about acupuncture points and meridians, we considered that the body looks like a series of garden hoses from all 10 negatives up to the top they had and then down to the toes. When you pain, it's a lot like, you've got a rock stuck in my garden hose. Somewhere around the body. And then acupuncture, dried legally trigger point injection and PENS techniques is taking a needle popping it directly into that garden hose and flushing all the rocks all that pain and stagnation out of the hose, right? So that's how we describe acupuncture and that's my quick description of acupuncture and how it works in the body. There's also a lot of other theories and how acupuncture is working on the body, we're not going to go into those today. But just talking about trigger point injections.

So, when we place an injection into a trigger point area, we are causing a little contraction of the muscle, but were also causing a reaction within that muscular tissue. Dr. Andreotti do you want to say something about the trigger point injections at this time? We may have lost her. We are having technical difficulties. It's okay and if we are all keep going.

Let me shoot, I don't see her. So, she'll be right back. So I'll keep going with this.

I'm here.

Dr. Byerly are we doing the trigger point injections?

I didn't know if you wanted to say a quick thing about it and when you would use those.

[No audio]

The trigger point injection would be effective can be done efficiently in a primary care setting as well in the pain clinic.

Excellent. That's great.

So, trigger point injections, they do help soothe the pain.

Can everyone hear me okay, sometimes we have problems with connectivity. I'm hearing yes. Online. Okay thank you for my spirit so we will continue. And I'm going to go ahead, and I will play a video while were working on seeing if we've got good connection or not. So just in checking in a trigger point injection you're going to inject a very small amount of anesthetic and steroid into the injection point

Where you have tension headaches and…

I'm sorry I'm back. I was thinking TPI was later on. So, as I was discussing Ariel so myofascial pain is one of the most common complaints for patients with physician care. And in many cases, there are reproducible tenderness sites in the affected muscle which I call the trigger point.

And those muscles are being targeted for release of pain and spasms. And trigger point maybe effectively treated in the office through trigger point injections as I was saying earlier. These are the techniques to be discussed today in a presentation. So, the term trigger point was coined by Dr. Jeanette travail in 1942. It describes the clinical findings of a painful module in an integrated quarter top band of muscle. So according to the American College of rheumatology trigger points can be painful for patients with four kilograms of pressure. The point where the examiners thinking it would begin to blanch. So, as you put pressure on that, you would feel your fingernail your thing now begins to blanch a tender area.

So, but taught band of muscle fondled can respond to needle activation with a loop local response. It's not always visible when present, but it can trigger an effective response to the trigger point injection. So, there's many benefits of this. And so, I just stayed on the slide it can help with smooth muscle pain especially in the arms legs, lower back and neck. So that the rest here I have discussed this already. But so, it's thought that our in any one of our six hundred muscles in the body can develop pain but they cannot all be addressed by direct stimulation. It can be in many areas of the body. But we see very common in practice usually on the thoracic area, the neck the back, and other points to, but as you can see in this slide right now. So, palpation of active trigger points greatly reduces assistance. And latent trigger points can cause stiffness and range of motion limitations. [Indiscernible]

So, a lot of times a patient comes to you with back pain and that of normal imaging, and Norman to the ports in those areas. And I don't know if many of you have suffered with myofascial pain and how debilitating that pain can be. So, you don't really know until you have experienced it until you send patients about how effective trigger points are. So approximately 20% of patients with act this trigger points also have fibromyalgia. And it's important to differentiate. Because of patient with fibromyalgia usually has pain that may be managed with systemic regiments and physical therapy and local injections. The point of trigger point injections with fibromyalgia may actually worsen the pick pain in many cases. Trigger points are usually located near bony prominence.

A moving part or where muscle tissues lie where the tender points such as fibromyalgia are also located in areas where the tissue is not subject to any local stress.

Now I did see in the chat room Dr. Antonello is going to be hosting a trigger point injection full course October 28th. And, let me just make sure I'm back to the chat. Let's see. Some are, kind of left the regular, or here we go, okay, got it. So, it's October 28th of this year.

And he said go ahead and contact him to secure a spot in that full training. That's great. Thank you, Doctor.

Is second to be online?

Hi, no. That will be a face-to-face course and wicketkeeper to a very small population to respect social distancing. Typically, we do it for about 32 but this course will probably be for about only 16. Again, those local at Fort Bragg, Dr. Leong will be our course director and it will be a seven-hour course and we will have seven hours of CME attached to it haired.

All right. I was just announcing that course to the classroom here. Registrants don't necessarily have the same level of volume that we have online. Thank you we appreciate that course. At this time were going to go ahead and take a 15-minute break. And then, we will be back right after that to go more in depth with our first videos on trigger point injections, and then medications used, and then we're going to go ahead and do PENS technique after that.

Okay so at this time, will go ahead and take a 15-minute break. So that will be 840 central standard time. Okay great. Thank you very much.

[The event is on recess for 15 minutes. The session will reconvene at (8:40a.m.) Central Standard Time. Captioner on stand-by]

Trigger point injections when combined with physical therapy exercise massage, stretch, acupuncture and ergonomic retraining, trigger point injections is thought to work by causing temporary relaxation of the taut muscles allowing for improved local perfusion replenishing of the clearance of noxious the satellites. In turn some studies have demonstrated that the mechanical stimulation of the trigger point by the needle that relieves the muscle spasm where the injection only adds action therapy. Regardless of this substance injected weathered sailing, steroids or a local anesthetic injection. Nothing has proven to be dried kneeling alone. However, the paralytic agent may produce longer-lasting results because of the damage to the muscle.

Injection of local at the aesthetic offers additional benefit of reducing pain. This does not add a new risk to the procedure. Most authorities recommend the use of .25%, 1% lidocaine or 2% procaine diluted two times for the injection. So, some of the literature I have observed they say there's a practice, there snows recommendation for steroid injection but many practitioners and providers still use steroids effectively.

So as an indication for trigger point connections. So local to the areas identified by population without other neurological or myofascial funding or pathology for treatment. And the areas should be accessible by needle without significant respite so we should be able to fill the area, and then it should not be a risk to the patient. When the contraindications for trigger point injections? So, trigger point must safely be accessible by needle and cellulite another skin integrity of the area to provide the trigger point are contraindications to this.

So also you want to be cautious with patient that have poorly controlled psychiatric disorders, and if you don't have access to even though it's only a trigger point, if you don't have any access for this equipment, then compromise healing or risk to infection, bleeding disorders and then fibromyalgia or the presence of too many trigger points. That structure of keloid formations and highly ancients patients. These are relative contribution contraindications for this. So after your screening for trigger points, just a regular patient most likely have already treated the patient for a history of trauma, fibromyalgia, collagen vascular disease, inflammatory conditions, bleeding disorders, high presence of diabetes but or with hepatitis C with the Sergeant& Should with generalized neuralgia.

And you understand and treat the chronic condition.

So, the physical examination usually is the evaluation of the effect of musculature and any associated by an affective late or active trigger points. So, it's important to keep in mind the significant muscular atrophy or deficit is treated.

I should alert the clinician to other anesthesiologists. So, the musculature should be probed for taut bands and tender nodules. The muscles must be in a relaxed position. Trigger points are commonly found in the mid belly, of the muscle where the contraction is most present. [Indiscernible] muscles can be acceptable in only one plane should be explored by probing. [Indiscernible] which is also, you can use this when injecting a higher risk like over the ribs, the lungs, and the neck.

I think some of the videos hopefully will show that. Where you left the muscle, and you hold the trigger point between your fingers as you left. Before you inject, so it's always important to make sure that we have important contact before performing the procedure. And again, that we can identify the pain and the trigger point at the source of pain. As I said, a local response may not have it, but it does help you to know that you are at the correct site. So, I think we can go ahead with our video Dr. Byerly.

Okay, excellent. I'm going to go ahead and start sharing my screen, just go ahead and chime in on the chat room if you can't see what I'm sharing for the video. And you can always click on the link on the slide as well. I don't know if it's a clickable link, but you can cut a look it up if you're having problems with the screen share.

This will take just a second. Thank you.

So we're going to do a video on trigger point injection, this is it sitting watching TV, and all of a sudden, just had a onset of pain in the shoulder the pain actually had paresthesia down his arm. When you palpated this very here, clearly, it's very tender palpable area. It really doesn't have any pain in the neck, maybe just a little pain going appear, is that right? So, more pain up there, so most of the pain that he is having, does not seem like it is a radicular type pain. There is no, really no history that some could sensing that he's got a pinched cervical nerve. One of the best ways I have found is basically to inject

the area that is obviously compromise. We will get them pain relief. So, what have actually mixed up and him and he is a three mL syringe, were going to mix up some arcane and 40 milligrams of Solu-Medrol, and so a lot of times this might be a tapping technique. Some people call it acupressure or ischemic pressure, and his area swelling is really right here. But I'm going to start off and this is going to hurt. A little bit. I'm going to actually use my thumb and I'm going to find areas that hurt you the most, and then I'm just going to put pressure down and you are allowed to costs.

Four kilograms, quite a lot.

This is where it hurts you the most yeah. It hurts.

Okay, so I am in the right place. So, I do this for a minute or two until I kind of feel a muscle underneath it, underneath my thumb start to give way. And so I just keep the pressure on there, and if I'm not hurting you, then I'm not in the right place. Okay, good. [MUSIC] I'm starting to feel a little bit, it's very tight. I'm not getting much palpation, but I'm getting some.

So, got that started there. So, you have this modality?

We're not using any coding. [Indiscernible - overlapping Speakers] I'm getting some freezing spray.

He is using a numbing spray in the area.

Watch him grab he's listing that trapezius muscle off the boat.
[No audio]

All right. The muscle is tight. [Captioner cannot get audio--] now. It's starting to feel a little better.

Okay. I'll give you a little bit more injection. So, what I want to do, is I'm going to go higher in here.

Send needle, different area, really all clean. Cleaned a different range of area.

I have to get into the muscle, so it okay. Now I'm going to clean itself a little bit. Now if we can get this while were working on that muscle number one and get a massage the medication in the muscle. Number two I'm working on getting that muscle to break up a little bit. [No audio]

I think this will improve over the next 24 hours. This stirrer's may be working now, and I think the culprit here has been met. What I find a lot of times people will have gone through MRIs CT scans, and all you have to do is just do something like an injection, and you are done. What's happening with the shoulder right now?

The shoulder pain is almost gone, and it's almost may be down to about 2/10, and like I'm standing now, and getting no pain and it's getting better and better, so I recommend the procedure.

Okay, good. They do so must be

Yeah, no problem.

[Silence]

So, Nelda said that he sang the important part of the technique [Silence] [No audio] [Captioners transitioning]

We don't have a way to actually show you how we are doing this, but if you have any questions, please let us know. Wait, he is going to use Botox, I do see we have those coming up, those are working very well, and it is longer-lasting.

Okay, so, we used five PC lidocaine and Dumarcaine.

So, prior to the injection, of course we are going to get verbal and written consent of the patients procedure to discuss the possible side effects, some clinics do try to offer a pain diary for the patient to be proactively tracking how they are feeling over the next 10 days, and that can be uploaded into the system, and discussed the follow-up schedule for any injections should the pain continue. And you can also discuss at that time, self-care, stretching, and physical therapy referrals and the like, and if you can have access to chiropractic, and great pain management.

Going back a little bit, we talked about having medical support assistance, being able to offer the Mac catching up on the slides, here we go, what can be a favor in clinic to have this flow a little bit faster, let's say primary care sitting in a pain management clinic, how are we going to help this patient get the treatment in a very timely manner, while we are seeing the patient real-time? And Dr. Marcela Andreotti, do you want to talk about how you use medical supports assistance to help out with that and helping out with medication draw?

So, they will just come in, and just get everything ready for you, but this can quickly be done at a primary care, with no issue, actually see the patient, do the evaluation and possibly do the procedure within one visit, and have your patient go home with some pain relief.

And then come how often do you recommend patients come back in your clinic for the trigger point injections?

So, it depends , so this is generally treated with a series of injections over the course of days, a few weeks , so injections may be proceeded every 3 to 4 days, but I normally do every couple of weeks or so, unless I have some commitment and we can spread it out every four weeks.

I'm going to open it up to questions in the room, go ahead, sir.

I had a question about, the patient walks into do the trigger point injection on that day, or is this something you identify the problem, and as a plan of care, you have him come back for another time, and those kinds of things?

So, I added to the plan of care, but that can be done, the patient can come in and identify a trigger point, he can do it at point of care, that is very effective for patients who need the clinic with instant relief.

In IPNC clinics, the way you are set up, we are that tertiary care, they have already been to the primary and secondary and by the time they get to the interdisciplinary pain management, usually they have been in therapy for several different rounds before finding effective pain relief, so for Dr. Marcela Andreotti and myself, and I do not do acupuncture, the treatment facilities usually do not do trigger point injections and strictly acupuncture, but medical providers can. So, she would normally see patients that have a prescribed pain management course, rather than a primary care. But I have seen this technique applied in emergency room situations. And as you can see, that is more of an emergency room situation from the video.

So, when you do the trigger point, are you cleaning it with lidocaine?

I couldn't hear the whole question.

The question in the room was, are you injecting lidocaine before the trigger point injection, and the answer to that, I will let you take that one.

So, no, you enter the side, the lidocaine can be painful, you do inject a small, you can do some superstition procedure, but that is not necessary, but normally you inject a little bit, just prior to sending, so they can have a little bit of anesthesia.

So, yes, and it was very interesting earlier, I want to emphasize this, when you are saying, it doesn't seem to matter the substance that you inject in terms of the pain management. When you inject a foreign substance, the needle, number one is causing cellular tissue damage within that muscle tissue, right? We are getting a calcium chain reaction immediately. And that is that trigger grab and catch of the muscle as you are going in there and needling. The tissue damage they were generating is already starting the chain of reactions, the endorphins, the body does not like getting broken. The body does not like having things injected in it, the brain is going to immediately start the reaction of the endorphins so the body can go into the runaway mode, so when you are bleeding, when you are bruised, when you've got an injection at that local tissue, the body is going to go into this sustained phone, I'm going to get away from the situation and will block the pain just from the needle. And we will talk about that further in the dry needling and the PENS techniques as well. Any questions?

That freezing cold, you can say, and this is very true, the patients are seen as soon as they get into the provider, as soon as they are in the room with them, they find that they are talking face-to-face and having a potential solution will decrease the stress and the pain because of stress, pain is also psychological in nature, we understand that we are eco-psychosocial beings when it comes to pain and there is many different layers but when I feel like somebody is listening and going to offer a

solution to our pain that day, we already feel a little bit better. The cold numbing spray on that muscle, fat, go ahead.

That spray, is that just to help with pre-procedural pain, as well as when you do trigger point, or is it just the muscle?

The trigger point area is very safe, the provider did a lifting technique, he was squeezing the trapezius muscle of the rib cage, lifting it up, and I would just caution providers to be very cautious about where the needle is so you don' cause the needle accident and to squeeze the other side. But the direction of the needle for the most part was perpendicular as it enters the skin, then oblique to the trapezius muscle away from any lung tissue. Does that make sense? So, you are never directing it down toward the lung tissue and that risk, so we are able to get rid of the thorax risk. Go ahead.

That is very important when injecting around the region of the thoracic spine, because there's not a lot of clearance right there, so it's very important to lift that muscle for the injection.

Correct, if you're needling across doing any kind of trigger point injection for whatever reason across any thoracic area that is right over a rib, what you can do is needle at a very oblique angle and not in the rib space, so right over the bony region of the rib and I can come you can lift, usually so you're bringing it away from the body and you are getting a good handful of tissue and then needling into that and allowing that to relax back down on the rib because you really want to be careful about causing the thorax, I did pull up several articles about this following anything, trigger point, dry needling. It can happen, that is why we go in a very oblique angle, we perpendicular pierced the skin and go at an oblique angle, so over the ridge of a rib head. If you're looking at acupuncture, where the points correspond, they usually correspond to a bony area of the body if we are talking about the thoracic area on the back and where we are going to be needling in the muscle tissue. It's usually right over a rib, then we are needling only at oblique angles, so very, never perpendicular straight into the lung tissue. Okay, go ahead.

I want to ask a question in regards to what may require more frequent chronic injections and how do you identify those for chronic individuals, so I think, as I said, when we receive our patients, usually those patients have chronic pain but history will help you identify and as you let the patient know, if this is the first time you have seen the patient, and they said they would follow up as needed, when they already had the procedure but we treat chronic pain patients, so generally, I'm seeing this patient multiple times for this treatment and some of them will be long-term and that is the only thing they told me, this is the only thing that offers me relief. So, I will keep going as long as they need but I think that the patient's individual history is what is going to help determine if it is long-term or something that is just going to be one.

In terms of, if we can get these techniques into primary care, emergent care sit calls sooner, there is an idea and a theory but an idea that perhaps we can stop that mapping of pain and scar tissue building in the body. So as we got pain, and let's say there is pain leading to headache, from the tightness, from the trapezius area, the rhomboid area tightness, our military is doing a lot of push-ups, sometimes it is minor shoulder injury, the muscles in the back start to lift, especially with low back pain, we are recruiting those shoulder muscles and lifting through the upper rid page. As we do so, it is pulling on the scapula and occipital ridge, and this can cause tension headaches. Imagine if a soldier or sailor presented with that kind of pain to an emergency room or pain management clinic or primary care.

First thing after it happened, less than three days with this occurring, they have tried self-care, self-management, icing it, rolling it out, a little stretching, so they go to the primary care, they get the injection and the muscles can relax, versus letting it build, assuming that is normal, assuming that as part of military life, my greens are a part of military life, and assuming that is the way the pain is going to go, having a good amount of tightness, we are looking at long-term damage, it'll rip during long-term physical exercise. If it is longer pain management over years, if we delay simple treatment that could perhaps make a big difference. So this is a theory, but the theory is, if we can get some of these techniques into primary care, into the hands of the emergency care physicians a lot sooner, perhaps we could soon stop that pain mapping in the brain and the body. Any questions?

Definitely.

Have you used trigger point for scar deactivation? I have a lot on that on the next slide. But go ahead Dr. Marcela Andreotti.

That is one, actually one of the cases, adding a steroid initially.

Will post surgical scar deactivation, and just to be sure, Dr. Peterson, is that what you were asking about, trigger point injection for postsurgical scar deactivation? Yes, and we have seen that, where postsurgical, either dramatic scars from battle incidents, so more warrior activity related scar activity, or let's say a tear on the shoulder and the scar tissue is impinging the movement, it is forming the Kiwi deep in the tendon and it's not allowing for freedom of motion, so I have seen needling techniques, noninvasive needling techniques such as architecture, dry needling, and you can just see when you're going into that muscle and tendon area, you are causing that quick muscle twitch but also that injury deep in that muscle, in the tissue area, you can really cause a lot of endorsements. We are going to talk about how needling can also start stem cell therapy, so we are going to talk about that in the studies associated with that as well. What indication would lead you to consider TPI over functional dry needling for a patient with mild factual pain?

That is a great question. Dr. Marcela Andreotti?

So, normally, as I don't do dry needling, I always recommend, I do trigger point injections, however, some patients don't want to use any type of medications, I have multiple patients that don't want any medications and in that case, I think it would be more appropriate for the patient. But, you can actually use both techniques at different times because you can't do the trigger point in between the frequencies of the trigger point, the patient can be getting dry needling but in many cases, patients, by the time they come to us, they would have had dry needling, for example, at physical therapy at Fort Hood, the clinic often does dry needling and the patient has already gone try needling before they came to me where I recommend trigger point injection. And it's not nearly as effective, you may find because at that point you're adding substance to it, it may help where the dry needling didn't. So, did I answer that?

Yes, and I was going to say, let's take another 15-minute break and then we will continue with the questions on trigger point injection before moving onto dry needling. Does that sound okay?

And I say something before we go, so we make sure, well, I will remember when we come back, I want to make sure we discussed the name of the book that is basically the Bible for two point injections it is about myofascial pain and function. That will give you techniques and what you need. And it is two books.

It is excellent if you are looking into getting into trigger point injections.

Thank you. Okay, we will return back here, nine, 35 -- 9:35, and that is Eastern Standard Time. So, we will be back. Thank you, Dr. Marcela Andreotti.

[The event is on a 15-minute recess. The session will reconvene at 9:35AM Eastern Standard Time. Captioner on standby]

I will share this, another great question in the room, does the trigger point go all the way to the root of the pain? And, how they are sharing, again, we are not quite back yet, we are just talking amongst ourselves, but I just wanted to bring that up.

We are back, we got into our conversation here, so she was just saying, great question on the root cause of the pain, if we see reoccurrences in the exact same spot, for example, the trapezius, the gluteus, etc., then consider cervical or lumbar pathology, and possible root source pain. Very good, thank you, that is very true. Dr. Marcela Andreotti, you are mentioning before we went to the break, about the book, I put the book name way up in the top of the chat.

Yes, I put the name on the chat as well, so we can see it there.

All right, we are back, so just to finish up, trigger point injections and how we are going to code and build for this appointment, Dr. Andreotti, one of the questions we got in the room during the break was, what is the financial aspect of performing this treatment on the same day

as your initial consultation with the patient? That is a good thing to talk to.

That is a very good thing, so if you're doing an appointment and you have a procedure the same with a -- the same day, and please feel free about talking about your experience at your facility, but over here, they tell us this procedure [Indiscernible] unless you are treating more than one area. So again, they can have both at the same time, as I understand.

Dr. Peterson also had a question, but did you have anything you wanted to add to that?

I can certainly add to that, I think that there's certainly a reduction that happens in the dollar signs that get back to the hospital, but there is not a reduction in the RVUs, so if you have your EMM code on that day and you identify the trigger point and you are offering some opportunities for treatment, topical, topical NSAIDs, topical lidocaine , you know, other potential treatments like manipulation, osteopath or chiropractic, you decide to go in that day, today's treatment will do the dry needling or trigger point injections, go for it. The fact of the matter is, you will get your RVUs you just might get a little bit of a reduction, reimbursement dollars that potentially go back to the clinic.

So, the problem is, if you go out and separate them to just coming in for trigger point injections, then you have to use the 99499 code, because you are not doing anything else other than the injections, so you get a small amount of RV you in that case, for the actual procedure. So I don't know, there are pluses and minuses to every way of doing it, but certainly I would say, don't make them just come back I think specifically for a trigger point injection if you have the opportunity to complete the procedure that day. I'm family medicine trained initially, within a 15 or 20 minute encounter, to be able to go through everything, in addition to all the other evaluation and management, that can be quite a challenge and you really have to see where you are and I can be a day by day thing, if the patient shows up in the morning and you are up-to-date.

Thank you, I appreciate that, and I do apologize, calling in on the phone, I think I'm having a little bit of trouble hearing you, but in the conference, is everyone having success hearing him, I'm going to repeat for the group in the room, some key points of what you said, so -- yes, you can hear him well? I will just repeat for the group here in the room, the key points of what he just covered, if you want to keep going with the clinical note topic, Dr. Andreotti?

I think that is a self-explanatory topic, but I do agree with what he was saying in terms of the primary care, it is a time constraint, getting everything done within a short amount of time. But, to code them, we can use the documents and procedures to verify [Indiscernible]

The question we had in the room, would you needle bilaterally for trigger point injection? Would you leave the pain on both sides if it has neck or back pain on both sides?

Yes, I do it all the time, the area where I can find the trigger point.

Very good. And I will go back over these points in the room here and the providers in the room here in more detail in just a minute. Okay, and so we went over CBP codes, we are almost ready for electronic simulation, so we have some diagnostic codes to use. There we go, and next, the medication, we already cover those for the trigger point injection, and then this is a good flow through about a verbal and written consent from the patient about the procedure. Now, a little aside sometimes in trigger point injections, sometimes in dry needling, or acupuncture sections, people experience a vague response, Dr. Andreotti, do you want to talk to your expanse of any of these responses with your trigger point injections?

I hate to admit, but I actually haven't had any [Laughter] but, I have seen it happen in the past, so any other providers that have performed trigger point better on the conference call, if they had any experience and they would like to share?

It's basically the patient is in a position, usually they have been sitting upright, where they have been unsupported area, if they are laying down, facedown with their head resting sometimes it's a little less likely to happen, or if they are more in a supported area like leaning on a chair, that can help them. But, sometimes it'll occur if the patient has very low blood sugar, so that response in the body, having that reaction, experiencing nausea, little dizziness, or blanching of the skin, you know, you can sometimes see the patient on the verge of passing out and you want to just stop the procedure at that time, have them sit or lay down and you can offer them a little water to drink usually, that is good enough, that can help out a lot as well. Usually that'll stop.

They may have a drop-in heart rate or blood pressure, these are patients that have stress that can cause the trigger point, and I can see it with a puncture, too. And, it is easily treatable, just make sure the patient is supported.

If they are responsive, they are not as likely to be experiencing a true response, they are going to be checking in with their body, how they are doing, and it may help out with that. Again, stopping the procedure, warming the patient, getting them to a safe position in case they do pass out, laying down, sitting up, and some water usually stops that.

Yes.

Let's see, so positioning a patient for a trigger point injection, so you can have them laying down supine, prone, or sitting. Dr. Andreotti, how do you like to have yours usually? How do you like to position your patience usually?

I usually have them laying down.

And then we had a question from Dr. Peterson, do you do any needle I could puncture with electrical stimulation for trigger point release?

And, let's see, electrical stimulation for trigger point release, we are going to talk about that when we get towards 10, if I'm understanding correctly, we are going to do a trigger point release, difference in trigger point injection on patients using a two needle electrical stimulation and it's going to be through electronics diminishing, so we will be covering that in just a second. This was another video on TPI, Dr. Andreotti, I think we are running a little low on time, do we want to watch this one or go on to the next one? Okay. So, we are going to be covering.

I think we should move on.

The occipital area for the migraine frozen shoulder, adhesive capsulitis, lavatory scapulae area, the lumbar region, the rhomboid region, between the shoulder blades, especially for shoulders doing a lot of push-ups, and the so as and knee pain. Knee pain we will talk a little bit about. Any questions on trigger point injections? You will be able to ask questions at the end, so don't feel like this is your last chance, but any questions online for trigger point injections? And again, everybody remember, we are teaching October 20, trigger point injection class. Are you allowed to go ahead and start forming these techniques? Great, now you can look into online courses, you can also look into shadowing another provider at your location.

What was the question?

Okay, so basically, there's a few ways to do this, you can go to a training, or you can have privilege to do this, you would have to sign a provision with a provider who will perform a number of TPI's for you to watch and you are going to be supervised performing a number of procedures with that provider, watching you. Then, you would get your credentials, and have the privilege of doing this. I also want to say, this is maybe just a quick topic, talking about TPI, there are other ways, and what I'm going to do here, as we delve into some further options.

[Indiscernible] yes, yes.

All right, so, PENS, we are moving on now, unless there are any other questions? PENS, percutaneous electrical nerve stimulation, this is where we are applying electrical leads to the needle, and we are applying electrical stimulation to small needles to penetrate the skin, that just means solid. As with TENS, small wires are attached to a battery-powered electrical stimulate her, and a key difference is that needle electrodes deliver current closer to the nerves or the muscles beneath the skin, so it's stopping the pain reaction of the area from going to the muscle to the brain, it is redirecting it like a traffic light, that is one way to think about it, and again, we are causing another reaction deep inside the muscle tissue because with the insertion of the needle, the body is going to start releasing endorphins, there's going to be a histamine response and lidocaine response, it is a localized area, which is great. We are looking here at a PENS video, so give me just a second, I'm going to get this started. I'm going to go ahead and share this screen. Here we go. Thank you. My apologies. And, I will have everyone, as soon as I'm

starting the video I will ask if you can go ahead and let me know if you are watching that, if you can see it. Okay, and if anybody can let me know they can see this.

I'm just playing it for the providers in the room. So, this is an example of PENS technique and you can see the muscles twitching. So, I will stop sharing. And go back to the document, thank you again. I think I'm getting faster at the Adobe platform. I think we can go to the next slide, all right, great. Here we go, percutaneous electronic nerve stimulation, and we are using short acupuncture needles, so it's not acupuncture but we are using acupuncture needle, to penetrate the skin, we are going deeper into the muscle and we are causing a little electrical stimulation on that muscle and is going to be interesting the nerve pain signal to the brain.

So, this is really good. So again, we are going to have a consent form signed in the clinic about using acupuncture, percutaneous electronic nerve stimulation or dry needling, and you can work with your legal team at your own facility on how often that consent form will be submitted. The legal team will say, as long as it is in the file and annually, you are fine, some providers will go ahead and do one every time just to make sure they are always cover no matter what. And acupuncture needles, when you are ordering your needles, I just wanted to point this out, acupuncture needles are the opposite of a medical needle, so if you ordered a 44 needle, acupuncture needle, you are going to get a railroad tie, basically like what you are going to be working on your patience with. But if you get .15, 4.13 needle, you won't even be able to cook an electrode to it, well, you could technically, but the best gauge in terms of electrical stimulation and needles is about a 0.25, it is a nice flexible gauge, it is nice and thin.

0.30 is a little higher, it's a little thicker gauge, a little bigger and a little less comfortable for the patient. So, the thinner the gauge, the more comfortable it is for the patient, however, it has to be thick enough that the electric can grasp the needle and cause a good amount of stimulus and deep into the muscle. So that is good.

There we go, so my background is on the doctor of acupuncture. There we go, and if we go, sorry, let's see, going forward one slide. Sorry about that. There we go. Okay.

So, why do we stab people with needles? Why does that make them feel better? Again, in terms of acupuncture, they talk about finding those acupuncture points that help alleviate pain over thousands of years, trial and error, and in terms of history, different cultures globally have performed incisions of the body, usually there are little boils and things like that, and some of the earliest acupuncture needles were just for that purpose, a stone or flint or bamboo needle that were used to help clear up little stagnation, what we call in terms of acupuncture. And eventually into silver, gold, bronze, steel needles.

Nowadays, we use surgical needles and it is 100% one-time use only needles, especially in America, we have never reused, after it is done, it is in a sharps container and that is it. And it's usually one time,

one location on the body, trigger point injections are used in a clean field, you've got the clean area and using the same syringe in different areas. Usually in terms of an acupuncture dry needling technique, you will take one needle for one region of the body. Even if you clean the area with rubbing alcohol, you're usually going to stay in one area with that one needle. And it will be retained for a certain amount of time and removed and thrown in the sharp's container.

In terms of the history of acupuncture, we definitely know that it goes a back about 5000 years, we have the yellow Emperor's tree city of medicine, Huang Di Nei Jing, we have a written copy, but the oral tradition goes back to the Emperor which is about 2500 years ago. I'm sorry, 2500 BC, so 5000 years ago. I will just keep going. What is the difference between PENS and acupuncture?

PENS is a technique that all medical providers can offer, which is great, in terms of with digressing a little bit here, in terms of acupuncture training nowadays in America, it's like my Master's degree, for acupuncture, it was a very long 220 didactic credit hour training. So, for instance, my undergraduate degree was 125 hours, my graduate acupuncture Master's degree program was 225 hours, it was 100 more hours than my B.A. that is a lot. My new current MBA is almost 30 hours. So, it is a huge program. They are mostly taking acupuncture training and turning them into doctoral degrees now. I went for an additional 2 years, got my degree in a puncture. In terms of, do you need that amount, five and half years, six and have years of training in order to needle lower back pain, upper back pain, as a medical provider, you've already had years of training and treating pain in the body.

We are getting all of that background. We have layered understanding of how acupuncture works the different systems in the body. Our nervous systems and with our pharmaceuticals, military treatment facilities overall don't allow herbology, so I would just put that out there. Our programs are quite long but physicians and providers and practitioners, physical therapist, they can employ these techniques right away. Check in with your credentials department to see what amount you need to provide these treatments at your facility. It could be with 10 techniques. A matter of didactic course trainings supervised treatments.

I find it very effective especially in the context when you think that if you do have acupuncture in your facility. The patient is only entitled to a number of treatments. And you can continue to do that indefinitely if it is offering some relief to your patients. And mentioning, acupuncturists have multiple areas they put needles in. Related to different parts of your body but you're basically just starting in that area of pain with PENS. Think about applying that for a TENS unit. Because it is similar contact, but it goes continuously.

That is a great point. So, the TENS unit is place very pop in the needle and attached the electrode to it to get that electrical stimulation of the nerve at a deeper level of the muscle body to interrupt pain cycle. So, there are some of this video, so in terms of providing a PENS treatment. What you'd need is the exam room that you're in, a bed is preferable, or some area that the patient can rest on. If they're doing a

low back, you could have the patient seated in the chair. Verbal and written consent and then discussing any possible side effects which are very minimal and rare.

But one of the possible side effects for say a shoulder or neck treatment of PENS, this would be a little reaction. So that's possible depending on how high you got the stimulation going and how much the muscle fibers are twitching. There might be a little residual soreness for the rest of the day in terms of the consent form, they will list on their pneumothorax and we will talk through how to angle the needle so that this is not a risk. And in terms of the depth of the needles, this is also important. When it comes to PENS. I would say that if the muscle is twitching and the needle has an ability to travel deeper into the body. I always do it a little more superficial so that the twitch and the weight of the electrode will drop the needle out of the body instead of having them twitch and the needle enter the body further.

Pain diary is always good and suggesting a follow-up treatment for other techniques. Discussing healthcare, stretching, and physical therapy. And with PENS, you'll need a space to perform the treatment room. The total treatment time is in 15-minute increments. So usually on Aris CPT-codes we talk about the tri-needling technique in terms of 8 to 15 minutes. You can go longer but up to one hour of treatment for a patient is comfortable. The problem with going longer for 30 or 45 minutes are up to an hour. The problem is with that, if the patient is in a prone or think forward position in the chair. Eventually their muscles may fatigue. Especially if they are in high level pain. So holding themselves out or lying face down on the table. Their muscles will pull themselves a certain way. So, the muscles might fatigue after 30.

Retweet 8 and 22 minutes is the most effective pain relief. So, do up to 30 minutes and just get a nice relaxing session for the patient and they usually won't be in so much pain. And a timesaver tip is to have the medical support assistance on counseling the patient, what to expect. And the pain diary. Positioning the patient. Helping to obtain written consent, and then to drape them appropriately. You can do this in full clothing just make sure like uniform pants are unbuckled. And then the shirt pulled up just a little bit. Usually patients are the blouse and just in their T-shirts.

If you're working on the upper neck, have your female patients keep on their sports bra. Patients can be without a T-shirt lying face down for any of the upper back and thoracic regions. They can have that if they feel comfortable. I usually always drape my patience with paper pillowcase we've been using recently a lot of paper in terms of draping the table. Wiping down the table, keeping the room empty as long as possible between the patients, and spraying down the areas. That's been very important to make sure were using clean handwashing techniques and making sure that the rooms are safe for the patient. The front desk will schedule any clinical follow-ups and any virtual appointments you can do that as well. Any self-care they can do at home. Let's play this video and then take a break.

Properly positioning the patient. Cleaning the site with single use alcohol pads. Here is going to be needling into the lower lumbar area. We typically go a few inches off the site.

First desensitize the area before dropping in the needle. It's really interesting. The brain just lights up when getting acupuncture. The typical treatment. Here he comes out with the electrodes. I would normally needle a little lower. I would needle across that area as well. And then what we've got here is mostly just a great low back treatment. I would needle into the [Indiscernible] to try to get the oblique angle. Is talk about using this around the knee area. But I like about this treatment of 10 is that it's dry needling and then we're adding nerve stimulation. I like this example for the lower lumbar muscles that are going to be so inflamed and so tight when you have some back pain looking at anatomy and physiology. I'm going to posit share.

I've heard it said before. The difference between dry needling and acupuncture is that acupuncturists are more concerned with parts on the body and Meridian and not concerned with anatomy and physiology and I was like what? I'm poking needles in people I hope I have a good anatomy of the physiology. That's the joke. But I agree it's a simple technique that causes great pain relief. Is it more complicated once you move away from the low back? Sure. We say and acupuncture and dry needling that the low back is as deep as a well. So, needles that are approximately two and half to three inches long in length. You can use long needles and when you feel it is you density change, you know you're getting down to the tendons that support the spine so you're not to poke through the tissue density change. You going to stay in the area of the muscle tone. It will be a different in tone between the tendon and the sheath covering over the spine in the actual muscles.

We will cover sciatic nerve pain a little bit more and dry needling. This technique for nerve stimulation. Can it take care of sciatic pain? When the purest form muscle please is that sciatic nerve. It's impinging the electrical stimulation going down the sciatic nerve. You can release this during a PENS technique or dry needling. It's a much longer needle it's going down towards this muscle. There is a specific direction to the contract cover enjoy needling and how to get to that area. That's a good technique. If you add electrodes immediately to write over this area and the low back, in my own experience offering stimulation in the low back.

If you're using the needle. The 10-centimeter needle to get down into the piriformis muscle are you using guided ultrasound. There are courses in ultrasound dry needling and TPI trigger point. You could use that. I'm going to palpate around the hip area. Going down to the gluteus and find it when it piriformis muscle is tight and just like they did on the trigger point injections is feeling down at the deeper level where the muscle was just dry. Then I'm aiming for that area. All feel the muscle twitch. And as soon as I do that people start to feel relief on that sciatic nerve so great question. Going back to the slides. We will take a quick 15-minute break then come back with the rest of the discussion on PENS and dry needling. Before stopping are there any questions?

Okay, its 10:24 AM. Let's come back at 10:40 AM. If you've got questions, please type them in on the break. I'm happy to answer questions

[Meeting on break until 10:40AM. Captioner standing by]

Let's go ahead and talk about what we were talking about here in the room. So be equipped to use these techniques. Providers in the room said if I've got three rooms and I'm cycling 34 patients through we once a day currently seeing patients on average of 20 minutes. How do I include these techniques?

Great question. I'll talk about how it's implemented that by different ways in Fort Hood. There was one room dedicated for technique. There was one room divided into three basics. Pre-covert. The patient could walk in and undress to their level of release. Female would have her T-shirt on T-shirt draped the physician would come in and do the needling. Attach it leave it and go to the next patient for 15 to 20 minutes. Cycling patients through each of those three days. And one room there'd be 18 sessions a day and the provider would see other patients in these rooms as well. The medical support assistant standing by the room to hear if patients were uncomfortable and in that instance the support staff member, depending on the hospital and required credentials and procedures. They were trying to work out a consolidated way of providing services. So that's coming. Positions in the state of Texas and Fort Hood, can have a support staff member or and MSA, remove the needle. Acupuncturist cannot.

A well trained LVN would enact [Indiscernible]

Adding the, in terms of the amount of treatment, this is going to be frozen shoulder, lavatory scapula, lumbar region, that's my number one choice. Because it's safe and effective for fatigue and sore muscles. The spasms and the pain signals travel back.

The Psoas region can get so tight that polls and herniate the spine and the disc. So working that Psoas. Getting smaller flexibility into it so you want to clean that area several times. I rule is the rule of threes. If I'm wearing gloves, I want to make sure that the knee itself is as clean as possible. Do we have any questions?

We were in the room talking about battlefield acupuncture so that was great. Tried to connect with that. What parameters do you recommend with PENS?

In terms of frequency health duration etc. I'm going to attach a book about a lot to go stimulation to the chat room and if you can contact me with that. Asking I'm going to use high frequency for pain and then go to the amount of, in terms of pulse, go to the level that the patient can just barely feel it. In my mind if I see the muscle twitch but the patient can't quite feel it, it's a comfortable therapy that's effective. I feel that if you're watching the patient tends up and twitch, then it will be alleviating to barely feel that electrical stimulation. I was asked the patient do you feel like you be able to just fall asleep I say

nope I'm going to turn that down turning that down just a little bit for more comfortable therapy. So, the first 15 minutes of electrical stimulation is one building code. The next 8 to 10 is again adding to the therapy, then building more throughout the next hour not really just letting the patient take a nice nap. A one-hour session. The effectiveness peaks at around 20 minutes and starts to go down.

It's relative. You get your specific machinelike different frequencies of the large one. Its patient specific you have to feel the patient's comfort level. So, it's difficult to say a specific frequency as each patient has it individualized.

I'd rather have the patient have a more comfortable therapy so this book I'm recommending is by David Mayer. This is going to list out different types of lead connection. What we witnessed in the previous video was in line with one side only of the body. When you're hooking those up there's certain ways and different patterns where if you really like that book, you'll just connect that in here. A practical reference manual. There's other dry needling and electrical stimulation PENS references but I feel that's a good one. Any questions? Let's go on to dry needling. This is a three-day course. It's usually a Friday or Saturday or Sunday around eight hours a day. Friday is an initial welcome to the course there is a weeklong course that they said providers and clinicians off onto. It's a great course.

Dry needling courses are usually taught by physical therapist, online on the health training. Can actually go online and find some dry needling videos. Very informative except how they treat acupuncturist. They make us look like document. But it's getting the technique to a lot of the providers and clinicians. There's all different types of positions a clinician can use. Is an acupuncture needle inserted into the skin into the areas of going deeper down into the tendon area? I would super clean that area. Make sure you have used the three rubbing alcohol pads and dry it fully before preventing any kind of infection.

It's important around the ankle, the knee, shoulder and the elbow or wrist. Because we are running a little short on time let me skip the video for now. Because I want to be sure and hit some key points so just like we need in terms of the tens technique. We’re looking to have a consent form signed within the parameters given there's different parameters. The joint commission likes to see the needles that were using for acupuncture needles are Sarah needles. Usually there's a little fine silicone they are coded and thick glide easier. In terms of these needles there is usually plastic guide to. I pointed that out. So going in to the lower back a 25 40 is a great-sized needle.

Go ahead and play some of this video thanks for your patience with this. Here we go. Needle length is very important. Thank you everyone. I really did like the description of that. Is it going to hurt? How many of these treatments am I going to need? When do I get to feel the benefit?

In terms of dry needling a lot of times patients feel relief immediately. When I run into a patient who has had dry needling usually from a nurse practitioner or a physical therapist, they will say I had acupuncture

before, and it worked great. I got rid of shoulder pain had one session and never had it again. Sometimes it can really be that amazing quick release. I feel like there's a lot more physicians or nurse practitioners or providers were using this technique in clinic. 8 to 15 minutes is highly effective.

They did this wonderful analysis of acupuncture in the country around the world and what is the most effective time. How many minutes creates the best treatment what's nice about dry needling is your placing the needle so you're twitching and causing muscle fiber releasing the reaction you getting the endorphins going. Your body feels better. It’s not a quick technique in terms of dry needling it's in, twitch, dig in, then out. So, it's not necessarily leave the room and let the patient breast. It can be one needle in the joint, manipulating that area and tightening it. Working on the tendons and causing those micro percutaneous blood leaks like the bruising between the areas.

It's a shoulder or rotator cuff that's holding on. If you're manipulating the muscle fibers and causing the twitch, then removing the needle you're causing a big reaction in that area in terms of blood flow coming back to that scar tissue area.

Does dry needling help with Bell's palsy?

In the video she said you need a prescription from your doctor to get dry needling. In a military treatment facility, I believe you need a referral from your primary care provider to physical therapy. In many cases like the Sparta clinic, new patients are being allowed to self-refer from sick calls directly into physical therapy. They can do these techniques in physical therapy and they could also do them in primary care settings as long as they have a room, a space, or a physical therapist there to provide the needling. A lot of this can be a logistics question of how we provide on certain days, sick calls for physical therapist available to needle patients. Even a secondary location. They could that day dedicated dry needling day. So that's different opportunities within the defense health agency to take on dry needling for pain relief. Just for providers and clinicians our pain providers in Fort Hood created a separate bay, but that was the day to come in and get the dry needling therapy. Providers were able to see other patients for clinical care and follow-up in other rooms. They had a medical support system and assistant watching over.

Is it helpful Bell's palsy?

So dry needling is particularly for musculoskeletal pain. So now you're really stepping into acupuncture of land.

Have a used it for Bell's palsy?

Yes, and is it effective? Yes. It can be. It just depends on how fast you catch it. Like how fast you can offer an antibiotic if that's going to be effective do you need steroids. Is not effective. Other patients have tried treatments in terms of long-term where the patient has had it for years. They come to see me and have seen improvement in their movement

and range of motion, so it's been wonderful. I will say that with facial pain in general, stroke patients do very well with needling so you might be causing bruising there where using larger needles then we would typically use in facial acupuncture which are very thin fine needles. In this you would use -- so it is going to be uncomfortable.

You have to be aware of the anatomy and the facial nerves. And making sure that you're hitting the right areas. If you're going to attempt dry needling for Bell's palsy. I highly recommend courses to follow up with that so you're proficient or recommend them to an acupuncturist of some kind. But it can be very effective. I've had some personal stories here, I had a stroke patient with many different systems she was in a walker and half her body had great production motion and movement. She was also this basic. Trouble answering questions. And after one session, she improved.

In the end you could tell she had ever had a stroke, amazing thing happened I was in a highly skilled, acupuncture points that we learned for recovery of a stroke around the cranial nerve and brain area. Different areas and movement areas. Using a bit of electrical acupuncture and stimulation using fine needles with electrical acupuncture. Not always comfortable but, she suffered through treatments and after a year was completely recovered. Amazing since after eight years of not having motion in those areas. So we've seen good things. Dry needling has different levels mostly concerned with needling, it's very safe as long as using a .25 by 40 needle. You're really not going to be deep enough if you're using a good angle to hit the spine. Not going near the epidural area just looking for those muscles. On the video he went more perpendicular. If you're ever in doubt, be sure you're never going to perforate the body cavity. Very important. So, you can have pain at the needling site pick

Await we've got a question.

Our PA on the call today has taken these calls. Flank health does have dry needling instruction that's a great question. There's a lot of training and its overall pretty good. The recorded seminar. I did like their materials.

So, anything that might be warm – is rare. In countries where untrained providers where people are doing acupuncture needling and they have no understanding for the anatomy and physiology if you're needling deep enough into the ridge and your vigorous enough if you're not watching what you're doing you can perforate various areas so there have been bad incidences of that.

In China there was four incidences recorded. In America, in terms of negative side effects that have never been recorded by a neck puncture asterisk that's good news. It's like 1 million in goes up a bit because you just want to be careful of that bleak angle anywhere near the blood tissue. Not necessarily perpendicular but going oblique will keep you into an area of safety. So, there might be with dry needling. And eight and that vicinity for the next few days. And uncommon would be a vasovagal reaction. If you're seeing this small reaction in one in every

200 patients I would say. This could be as little as I'm feeling a little dizzy or they get up after the treatment and they feel nauseous. So, let's keep going here. More questions about safety, vasovagal reaction, are going to keep going. Any questions in the room? Just one last video.

What I like about that video was dry needling can be very quick, and very effective. So, you could see this this was appropriately draped I oftentimes have my patients more prone so there laying down. With Covid-19, everyone's wearing a mask. We are more mindful of super cleaning a room after that kind of treatment. He used his hands to manipulate the treatment first then directed the needle to that area. I will glove up and then look in that area for the pain. I will then go ahead and now clean that area with rubbing alcohol because even if you have gloves on, you don't know. So, I will clean it just before I needle that patient and it was the video, thank you Dr. Peterson.

When he needled the area on that patient, I would not choose to do that. Because you can technically needle that area if patients are having neck spasms it's not typically from that area. Number one, its safety and I'm leaving the room. I can't be sure that if I leave the room this patient is going to reposition it could be quick and release that's a separate story I would go ahead and needle that area. But there's a lot of palpation in that area to make sure you're not hitting important markers in that area. And how nerves run, in terms of pathology the thyroid has a lot of tumors so that for me there's freely needling. But I did enjoy that. It's a very large needle you need to guide it making sure it's all clean. It's a quick tip legislation -- manipulation.

So, perforates into the lower back area and then you twist he needle I'm going to make sure that this needle is not stuck. Sometimes when you go to pull the needle in the field stuck not necessarily like it's coming out of the body, it's smooth on a microscopic level. If you just released that needle by and twisting in the opposite direction or tapping on the surface of the skin and wiggling it. It comes out. If you panic and try to yank it out both you and the patient will feel uncomfortable. There's lot going on. You twisting the muscle fibers around that needle. Are causing that reaction to get it stuck and then you can and twisted. Usually I tap down the range of the muscle so if you look at how it lays on the body. I will usually tap down where the muscle originates. So I will tap on that. We are almost at time, its 11:25 AM and the course ends at 11:30 AM. So how about last alibis. Any questions in the room?

So is dry needling or trigger point injections or tense techniques good for people who have had shingles. Pain as it relates to different nerve areas for acupuncture, I will say yes we can do it peripherally. We will go around that area, circling it without getting near the lesions then going to hand and feet points so in terms of acupuncture that's how we often talk about viral loads. This can cause, you know a histamine reaction that mitigates that information. And in the chat room are there any questions? You’re working out health facility by facility certifies providers. This is something that we need to know so I will just offer this up to the room.

Depending on the issues that you're going to run into. When you go to get the certification please techniques. Say you take this training to your military facility and your credentialing department says you're going to need 100 hours of pen techniques for dry needling. New Orleans can ask for that much. But if they did. We need to know that. Because, a part of what I'd like to help out with is coordinating how these techniques are being credentialed and what's the centralized form of credentialing going to be using and if we are having this large outliers and parameters. I think it would be closer to around 4 to 5 sessions of dry needling, PPI. And then there's actual credentialing that people can go through. So how were going to regulate this all at once.

I need to know what different credentialing departments are saying so if you take your training and you hear a number back. I'd love to hear about it. If you can, keep my email and feel free to email me on any email provided either Army or private. Because were looking to get these techniques out to our providers and click missions as fast as possible. Great. So, any other questions? If not, thank you all very much.

Oftentimes, we do here that credentialing systems don't track PENS. Other states have said that PENS and dry needling. If you're a physician. You are licensed to do it. Keep in mind that based on your specialty it may not be available like if you go to that class you have to work with your officer because maybe nobody else in your area was credentialed.

It would be good to know feedback so we can help shoot guidance to the leaders and get that centralized type of credential going. Okay, thank you. Any further thoughts?

Thank you everyone for coming and if you have questions please don't hesitate to reach out to us.

Everyone has our contact information it's been sent out they require 5 observed therapies for credentials. Thank you all so much for your time today. Thank you and I really appreciate it. Thanks, and grateful for this room in general. So, I really appreciate getting to train today. I will be online if you've still got some questions. Thank you so much.

[Event concluded]