Good afternoon, everyone welcome to our workshop for today. Clinical Practice Guidelines for Pain Skills Training. Today we have Ms. Corinne Devlin and Ms. Elaine Stuffel who will be the presenters for today. I want to go over a few housekeeping roles. This session is being recorded. If you have not done so mute your microphones until the questionnaire and answer portion of the workshop. We have recorded the sessions and posted them on the training website along with the sign in sheet that must be completed and returned to receive credit. I have posted the sign in sheet in the files pod, click on it and download it. During the question and answer please use the raise your hand feature to be called on. Also, the week following the training you will receive an email survey evaluation. If you are having trouble viewing the slides, please exit out and come back in or download the presentation from the files pod. I would like to turn it over to Ms. Corinne Devlin and Ms. Elaine Stuffel.

Good afternoon, this is Corinne Devlin. I am chief of Evidence based practice headquarters of United States Army Medical Command. This is my colleague. This is Elaine Stuffel. I'm a registered nurse consultant in clinical practice guideline coordinator at headquarters for the United States Army. We would like to welcome you for the next two hours of the VA/DOD pain related clinical practice guidelines for diagnosis and treatment of low back pain. Management of opioid therapy for chronic pain at a primary care management of headaches. Before we begin, we want to draw your attention to the chat box in the lower left-hand corner. You'll notice we have uploaded all of our patient provider tools that are related to this block of instruction. Please feel free to review and download these tools at any time during today's presentation. We will of course go over them later on during the presentation but it's nice to have them ready for future use. Neither I nor Elaine have any disclosures. Our views in this presentation are ours. They do not reflect the official policy of the Department of the Army, the Department of Defense or the United States government.

To begin with we want to give you a very brief history of VA/DoD CPG's. They referred the veteran's health affairs in the late 1990s. They were shown to improve patient care. One of the first clinical practice guidelines we've used followed soon by diabetes treatment type II diabetes. Congress mandated the DoD also used VA/DoD clinical practice guidelines. The Army's lead agent for the department of defense has the contract for development of privation kits. It's for the involvement of CPG's and both the offices collaborate with the other. The above diagram shows the process for the development of the VA/DoD. We will discuss in more depth over the next few slides. While the presentation will only focus on the pain related VA/DoD guidelines of which there are 24 clinical practice guidelines. We thought it would be important to review the development process from the key questions and the evidence-based recommendations. We use the gray methodology to accomplish this. To start out with, the clinical practice guidelines are selected for development and subsequent review by their importance in clinical practice from the evidence-based practice worker. Both the Department of Defense in the VA Offices are frequently asked if we could develop different topics. For example, not long ago my office was asked to develop a VA/DoD practice guideline on lead poisoning in children. Since the VA doesn't care for children, we were unable to comply with the request that CPGs should

cover the populations that are cared for by the DOD and the VA The evidence-based practice workgroup establishes a five-year update process by which 4 to 5 guidelines are developed and updated during each fiscal year. At any one time we are in the process of updating 8 to 10 clinical practice guidelines within every calendar year. Updating a clinical practice guideline takes approximately 12 months and is allocated 10 key question. The development of a new clinical practice guidelines must be first approved by the evidence-based workgroup or mandated by Congress for example. That takes approximately 18 months. Each one of the new guidelines is allocated 12 key question.

During the update of the clinical practice guidelines we determine the topics for clinical practice. We critically reviewed the previous clinical practice guideline and then we determined the scope of the CPG to prepare for and conduct the patient focus group tentatively categorize the previous clinical practice guideline recommendations and do the key question development and develop and finalize the evidence review protocol and conduct an evidence review and review results. We update previous clinical practice guideline recommendations and develop the new evidence-based recommendations and refine recommendations that are carried forward from the previous guideline which we are not covered by key question. We initiated a drafting reviewing and revising the clinical practice guidelines. We developed patient tools specifically the clinician summary and pocket card and then lastly finalize the practice guideline material.

The first step in the clinical practice guideline development process is to review the full text of the previous clinical practice guideline and the CPG overview which is prepared by the Lewin group. It's a VA contractor that facilitates the VA/DOD clinical practice guideline. We had identified appendages and algorithms that should be cared for from the old guideline to the new guideline. Then we need to determine the scope of the updated clinical practice guideline. Our group considers which population we are talking about. Is it still the same from the previous guideline or is this is a new guideline we said specifically what we want to discuss? Who is the target audience? Is it primary care or specialty care or rehab and then we have various aspects of the clinical practice guideline that we look at in terms of the most important.

For example, for management of low back pain is one of the most important topics need to be covered. The patient focus group is next in the process and is conducted concurrently with the development of the key question. The patient focus group is an important aspect of updating developing a VA/DOD clinical practice guideline. They are at the center of what we do. They provide a unique perspective of their own disease process. We want to ensure we capture this within the clinical practice guideline. The workgroup is responsible for considering and applying the patient experience in conjunction with the workgroups clinical expertise when developing the key questions and the recommendations. Before we finish the key questions, the patient focus group has been performed and we have a summary of what the discussion questions revealed. The patient focus group offers yet another source of data or the workgroups consideration as we used our methodology. We will talk about that momentarily.

Next, we develop our key question. They are the foundation of the clinical practice guidelines. They are the questions that our research is trying to answer and are the basis of the literature in terms of the search criteria and the results of the evidence review. The workgroup which is consisting of 20 subject matter experts in the VA and DOD are asked to develop up to 12 questions which cover the most important critical topics. During this we consider the following in determining which topics would benefit for a review of the evidence. We're looking at the current healthcare practice guidelines that are outdated and they were relevant five years ago and currently that literature shows they are no longer applicable. Practices that were sufficiently covered and a new and emerging practice in the field.

The development of the key questions takes approximately three months. During that time the workgroup meets weekly to develop questions using a format. It stands for population intervention, comparator, and outcome. So, the example on this slide is from the development of the headache clinical practice guideline. Our general question asks, are over the counter medications useful in adults with chronic headache? We convert that into a PICO question by asking about the population which is adults with chronic headache. What is the effectiveness? Of over-the-counter medications? That is the intervention. Compared to alternative medicines which is the comparator on frequency of headaches. That is our outcome. After the development of the PICO question we are ready to conduct the evidence.

We are ready to conduct the evidence review. The evidence review is conducted by [Indiscernible] which is a subcontractor to the Lewin group. ECRI performed evidence review by emphasizing peer-reviewed journal articles that answer each of the key questions. This provides a foundation for the clinical recommendation. When we ask ECRI to do the evidence review, typically it can consist anywhere from 5 to 8000 peer-reviewed articles. They condense that synthesis down to peer-reviewed journals that are the primary language in English and then referred there by applying the key questions to the synthesis of the literature. Frequently they can go from 5 to 8000 articles. Then to get at the crux of the question sometimes they may only get about 2 to 3 percent of the articles that we use for the evidence.

So, the evidence review ensures the quality of the evidence for each question is assessed at two levels. Which are the individual studies using the United States preventive services task force method and the quality of an assembled body of evidence by outcome measure which is by using the G.R.A.D.E. methodology. Methodology is the grading of recommendations and assessment and development and out evaluation. The results are then compiled and presented in the evidence review report. Then the workgroup members will be asked to review the evidence report prior to the face-to-face meeting which facilitates meaningful discussions about the results. After evidence review was completed the workgroup then conducts the 3 1/2-day face-to-face meeting to transform our key questions into evidence-based recommendations. Our workgroup discusses and appraises the evidence found for each key question we determine if any recommendations that can be made are updated based on

the results of the evidence review, and then we assign a strength in category of each draft recommendation.

This diagram demonstrates all the components that the workgroup completes during a 3 1/2-day face-to-face meeting. We are looking at the evidence from the update on the systematic review and clinical practice guideline. Of course, inputs on the patient focus groups. We develop the recommendations using the components of G.R.A.D.E. which is for domains which consists of the confidence and quality of the evidence. The second domain is the balance of desirable and undesirable outcomes. Domain three is values and preferences of the patients. Domain four's other implication such as resource use and feasibility. We determine the strength in the direction of the recommendation. We categorize the recommendation and draft a narrative supporting the recommendations while we are actually at the 3 1/2-day meeting. It always works. That 3 1/2-day workgroup you get 20 subject matter experts from the VA and the DOD and we get recommends that are based on the evidence. The process of developing a recommendation from the key question consists of the following. We're looking at the evidence review which was informed by the 12 questions, the previous clinical practice guidelines in the patient's focus group feedback and clinical expertise which is why we have 20 subject matter experts from the VA and also, the DoD G.R.A.D.E. methodology is adhered to while transforming the key questions into recommendations.

We will discuss what the G.R.A.D.E. methodology consists of in the next slide.

The G.R.A.D.E. methodology establishes the initial level of the competence of the quality of the evidence. As we look at the far left under establish initial level of confidence. We look at the study design. What did the randomized controlled trial due? That has higher levels while the observational study is lower. Inbox two the grade methodology considers lowering or raising a level of the confidence for such things as risk of bias and inconsistency of the literature and directness or publication bias. Likewise, the level of the confidence of the level of the evidence will also be, raised for a dose response. Finally, inbox three the level of the confidence of the evidence is assigned as high, medium, low, or very low. So, the strength of the recommendation is based upon the quality of the evidence. When we read the recommendation, we recommend offering versus we recommend against offering the recommendation is based upon the evidence. Not a subjective feeling. That is a challenging component during our 3 1/2-day face-to-face workgroup because of course, workgroup members want to assign a strong one for all the recommendations. We have to circle back and remind our workgroup members that the recommendation is based on the evidence. If the evidence isn't present or the research study was observational versus a randomized controlled trial, then we can only score it based upon the strength of the evidence. Eventually at the end of the 3 1/2 day face-to-face, we are able to communicate that we are looking at the evidence not on subject matter expertise or feelings that we feel the recommendations should be strong. So lastly the workgroup arrives at the strength in the recommendation. We're looking at a confidence and quality of evidence. Randomized controlled trial versus the study. The benefits versus the

heart. Does the literature tell us the intervention we are going to use is either going to provide a value edge or is injurious? We look at the values and preferences. What did the patient want to do? And then other things such as resource use and equity.

Once the recommendation is completed by the workgroup the recommendations are then formatted through an iterative process of three drafts. The first draft is completed two weeks after the face-to-face. The second is completed approximately two months later. The final draft is completed approximately three months after that. After completion of draft three, the document is then submitted to an external peer reviewer that was recommended by the clinical practice guideline workgroup. The external peer reviewers have approximately one month to review the document. It is not one and done. We don't sit down and in 3 1/2 days crank out a guideline pick we review it over and over and over to make sure we get to a product that is congruent with the evidence as well as congruent with external peer reviewers. After draft three is returned by the external peer reviewer, the workgroup works on incorporating the changes into the document as applicable for the completion of draft three. I say this because frequently we will have an external reviewer that will make a comment in terms of making the change in the guideline that is inconsistent with what the evidence shows. Again, we have to call the evidence versus subject matter expertise. We will always refer back to what the literature shows in terms of strength of the evidence. Our draft three is scheduled for presentation in the practice worker. And meanwhile while we are waiting to get that document to the evidence-based practice workgroup we develop a clinician summary, patient summary and a clinical practice guideline. Each guideline usually is in excess of 100 pages. A clinician summary is helpful to look at the components of the guideline. We also do that, and they are interested in the disease process. Pocket card has valuable components that were further distilled from the guidelines. After the final document is presented to the evidence-based practice workgroup for their approval and is presented by the VA/DoD guideline champions, any connections that need to be made to the CPG after the workgroup has made their comments are included into the guideline and once the changes have been made and sent back to the evidence based practice workgroup for their approval, the CPG is subsequently formatted for 508 compliant and uploaded on the VA/DoD practice guideline website.

Now that we've discussed how the developmental process of [Indiscernible] we wanted to share with you what we feel is an important feature of VA/DoD guidelines. These are the algorithms. Our algorithms serve as a guide that providers can use to determine best interventions and timing of care to optimize quality of care in clinical practice guidelines. As this presentation is about pain related VA/DoDs for CPGs. I will be followed by my colleague Ms. Elaine Stuffel. Before we begin with our low back pain algorithm, we briefly want to explain each box in the algorithm. Our rounded rectangle is represented clinical states her condition. The hexagons represent a decision point in the clinical practice guideline. They formulate as a question that can be answered as yes or no. The rectangle is representing an action and process of care. Take it away, Elaine.

Commented [LALCW1]:

So, we will go over the low back pain algorithm first. There are two modules in the low back pain algorithm. Module A covers the initial evaluation where a focused history and physical exam are performed. If no potential serious conditions are suspected, and the low back pain is less than three months, together the patient and provider in a short decision-making process will discuss self-care and noninvasive treatment options, and together they will develop an individual treatment plan. However, if a potentially serious condition is strongly suspected, then diagnostic studies are performed, and if identified, then the specific cause is treated, and consultation is considered.

Module B is the management of low back pain. Therapy is initiated, and patient's responses evaluated within four weeks. If there is improvement, you continue with the self-care and reevaluation in a month. However, if it's not improved, then any potential serious conditions are they suspected? If not, are there any significant functional deficits? If there are not, you would want to consider alternative pharmacologic and no pharmacologic interventions. However, if you do suspect the serious condition, then a diagnostic study would be done, if a condition is identified we consider referral. If there are no significant functional deficits, I'm sorry if there are any you would engage in a multidisciplinary rehab and possibly refer to a specialist.

The next one we will review the primary care management of headache. If we could go to the next slide. As always, we perform a general history and physical exam. If the patient requires urgent a merger see reevaluation enter treatment, we consider urgent care or the emergency department. If not, then is there a secondary or complicated headache presentation or multiple headache type? If there are, we would refer. If there are none, we would evaluate the patient for tension headache, migraine headache, or cluster headache. While we do this, we will assess the patient. Also, for medication overuse headache. If none of these, then we would consider an alternate diagnosis or refer for specialty evaluation. If it is one of these such as the tension type migraine or cluster, we would treat appropriately according to the clinical practice guideline and then reassess improvement. If so, continue and reassess as needed. If no improvement, we would refer to a specialist.

I will now turn it back over to my colleague who would review the algorithm for management of opioid therapy for chronic pain. As you can tell there is a theme here. I like kitty cats. The management of opioid therapy for chronic pain consists of four modules. We have module A. It is continuation of opioid therapy. It's patient currently on opioid therapy and certainly while we have the guideline down into an algorithm I do not want to take away from the importance of this particular guideline. At any time, you can go to a website and download the guideline and certainly take a look at the clinician summary which offers a nice version of the guideline. So, for module we want to determine the appropriateness of opioid therapy we are taking care of a patient with chronic pain. We want to know if the person has been on opioid therapy for more than three months. If they have we immediately want to refer to module D.

If not, we want to obtain a psychosocial assessment. We want to educate and reeducate the patient on non-opioid management to improve function and quality of life realistic expectations and limitations of medical treatment and implement the treatment. We want to be sure if they are effective in managing pain. If they are not, we complete the risk reduction in what the risks and benefits are, and we will consider the risk factors that the patient brings to the appropriateness of using opioid therapy. If the patient is not considered, then we refer and Consult for evaluation and treatment as indicated. We want to make sure the patient if they have any underlying mental health issues or interdisciplinary care. We want to make sure we consult with appropriate disciplinary treatment. Finally need to make sure is the patient willing to engage in a comprehensive pain care plan. We want to educate the patient and the family about treatment options which include known risks and unknown long-term benefits opioid therapy and risk of substance use disorder and overdose and risk and mitigation strategies.

Then in terms of our action is adding opioid therapy to comprehensive pain management indicated at that time. If yes is the patient ready to respect the responsibilities of mitigation strategy. Just because the patient wants to start opioid therapy if you're not comfortable as a provider treating a patient who may require additional opioid therapy then you certainly have the opportunity to consult or refer to one of your clinicians that has more depth of knowledge in treating patients who have opioid therapy indications. We want to make sure if you can do that if you are that clinician you need to discuss and complete informed consent with the patient and their family and of course determine and document a treatment plan. If the patient is not amenable to starting opioids, then exit the algorithm and manage with non-opioid modalities. If the answer is yes and we want to proceed to module B. If it is with opioid therapy and we determine the patient is a candidate for trial with opioid therapy. We have garnered consent. That is in conjunction for free pain care plans. We initiate that opioid therapy using the following approaches. Realizing a short duration one week initial prescription and no more than the three months total, we want to use the lowest effective dose recognizing no dose is completely safe and we need to have a strategy of escalating achieving benefits which increases the risk in terms of not being shown for function. The escalation above the grams [Indiscernible] is not been shown to increase function and increases risk of bad outcomes for our patients. Long acting opioid should not be prescribed for opioid naïve individuals. Consider alternative to methadone and fat no. And you want to see recommendation for that. It says improvement of pain and function status and adverse effect. We want to offer education and the locks own distribution. Is the patient medically or psychiatrically unstable? If they are, want to admit and provide medical and psychiatric treatment to stabilize. If not, is there a clinically meaningful improvement in the absence of significant risk factors? We want to taper to discontinue and exit the algorithm. If yes, we want to review and optimize comprehensive pain care plans.

Here we will start with box 8. We will follow up based upon patient's risk factors. We want to assess the risks and benefits of opioid therapy. Make sure that the patient is aware of the adverse effects and ensure they adhere to the treatment plan and they know about complications and

co-occurring conditions and we have insisted upon a risk mitigation strategy. You can see that in sidebar A. Want to review and optimize a comprehensive pain plan. Are there other factors that increase the risk of opioid therapy present?

For example, no adherence of co-occurring conditions such as behavior [Indiscernible]. That would consist of opioid use dependency or indications for referral. We consider one or more of the following. Consider shortening the prescribing interval and initiating risk mitigation strategy. Referring to disciplinary care. Do you have resources and always assessing to ensure that if there are indications to discontinue opioid therapy or taper off opioid therapy? We have to reassess the patient in one to three months or more frequently as determined by the patient's risk factor. If you are going to taper to reduce the dose or taper to discontinue you want to proceed to module C. Module C is tapering or discontinuation of the opioid therapy. We have the indication to taper reduced dose or taper to discontinuation. Want to repeat the assessment and be sure to take a look at the other modules. We have to decide, does the patient demonstrate signs or symptoms of substance use disorder? If they do it will be a great opportunity to review the VA / DOD medical practice guideline. The patient willing to engage in therapy? If not, they continue to monitor for substance abuse disorder and of course exit the algorithm. Is there any evidence of diversion? If there is, if you note there is evidence of diversion then you want to immediately discontinue the opioid therapy. Certainly one of those indications of diversion would be when you do a urine drug test and you expect to find quantity of the opioid in the individual's urine, and if they come back with a negative urine screen, that is the opportunity to have that frank and honest discussion with that patient. Is there a high risk for dangerous behavior? Has the patient sustained an overdose? Have they had an accident cracked have they threatened their provider? You want to develop an individual tapering treatment plan to include the pace of tapering and the setting of the care based on the patient's treatment characteristic. And look at sidebar A and recommendation 14 and 15, in the guideline it will articulate what the components are.

Follow-up in one week to one month after each change and after discontinuation considering patients and treatment characteristics consider the following at each interaction with the patient. You want to educate on self-management and risks of opioid therapy. You want to optimize whole person approaches to pain care. Optimize treatment of co-occurring, mental health conditions. Optimize non-opioid pain treatment modalities and reassess for Opioid Use Disorder and readiness for the treatment as indicated.

As we continue to taper or discontinue opioid therapy, I will refer you to box 12 since you have looked at box 11. Are any one of the following present? To the patient have a resistance to taper? Are they high risk or exhibiting dangerous behavior? Do they have an increase in distress question if they do you want to repeat the comprehensive assessment and identify substance use disorders if they are manifested? If they have then proceed onto module C. Are either of those identified quick use of the opioids to modulate emotions for chemical coping? Untreated or undertreated psychiatric disorders? If they are engage the patient and

appropriate behavior in psychiatric treatment don't feel like you have to go at this alone. None of us are a one man or one woman show.

Is the patient fearful and/or anxious about tapering and the ability to function on a lowered dose? If they are, provide additional education about whole person pain care and long-term therapy and reassurance. The patient will not be abandoned. Consider frequent follow-up using expanded care teams. Consider reduced rate of tapering or pause and taper for patients actively engaged in skills training and then reassess further use disorder throughout the taper. Is there a concern for diversion? If there is, please proceed back to module C box 7. If not, proceed on to module 11. We will go on to box 11.

Module D. Patients currently on opioid therapy. Are there factors that would require immediate attention and possible discontinuation of opioid therapy due to unacceptable risk? If yes, provide treatment to stabilize including opioid therapy and opioid tapering or substance use disorder treatment as indicated. If no, obtain a biopsychosocial assessment. Of course are the following available for review? We want to make sure we evaluated prior medical records including current prescriber prior to current urine drug screening and tests and also reviewing prescription drug monitoring programs with the patient. If no, are they related to that prior to prescribing? Make sure you have your information as we are taking care of our patients using opioid therapy as a treatment modality. Review data and reassess the benefits of continuing the opioid therapy. Do the risks outweigh the benefits of continuing therapy? If they do, proceed to module C. If they don't, consider reeducation on the following issues. Non-opioid management to improve function and quality of life. Realistic expectations and then the new information and lack of benefits of long-term opioid therapy. Lastly are any of the following present? Had the patient been prescribed a dose greater than 90 milligrams of morphine equipped? Which overtime has been shown to be lethal? It's important to if at all possible, titrate the patient back to a less injurious opioid therapy. We need to ensure that we are not combining sedative medications that increase the risk of adverse events. Patient nonparticipation and comprehensive pain care plans. The patient is a partner in his or her opioid therapy. And then other indications of tapering.

And then finally, in module B we want to continue with box 12. Want to reassess and optimize the treatment for chronic pain. Things like physical and psychological treatment. Recognizing patients are willing to continue to engage in comprehensive treatment plans including non-opioid treatment. Is the patient experiencing clear, functional improvements with medical risk? If they are not, we need to proceed to module C. If they are, we need to continue opioid therapy ensuring that using the following approach. Using the shortest duration of medication for the patient. Using the lowest effective dose and recognizing there is no dose that is completely safe and overdose risks increase when we have greater than 20 to 50 milligrams of morphine equivalent daily dose
And continual assessment of improvement in pain and functional status and adverse effects. Then we have course returned back to module B. I say again module B in box 8. That is modules A through D for the long-term opioid therapy.

We are right at about 45 minutes. Depending on what time zone you are sitting in, you are either eating lunch or you have finished eating lunch or you are getting to be thinking about eating lunch. Go ahead and take a break, 15 minutes. Get a drink of water. We will resume at 1300 hrs. Central, 1200. I say again 1300 Eastern and 1200 Central. We will talk to you all soon.

Event is on a 15 min recess and will resume at 2:00 ET. Captioner is on standby >> [Captioner transitioning] >> [Captioner standing by] >>

Okay, it is now 1300 Central in 1400 Eastern. Welcome back everybody. I will present a few case studies on the three clinical practice guidelines we have been reviewing.

Can I have the next slide please?

There we go. Okay, if you notice down underneath there are two URL websites. That's the website and the shopping cart. I will give you a minute to write that down, that way if there any tools you want to see you can go to the website in the top right-hand corner there is a shopping cart icon and if you click on that. You can open an account and order or download a copy onto your laptop or desktop.

The first case study we will do is on headache so if you will go to the next slide please.

We have a patient, he is a 28-year-old active-duty male soldier who is MOS's infantry. He complains of frequent headaches that have increased over the past six months after returning from deployment. He has the dislike of doctors and medications, so this is a command directed evaluation. So, you do a history and physical and they show he has a history of migraines as a teenager and recurrent headaches status post enlistment, one to two a month. He is followed by behavioral health for post deployment readjustment disorder following up complicated deployment. He had an ACL tear repaired five years ago. He is not on any prescribed medications however, he takes over-the-counter drugs on a daily basis. He is on a physical profile as PT aggravates his headaches and misses work one to two times a week due to these headaches. He is frustrated as he uses exercise to help with stress which results in his being short tempered and wake gain. He vaporizes her uses tobacco daily. Has social history shows he is married with two children, ages three and five, and is currently separated from his spouse. His headache has worsened after the truck he was then ran over an IED, he hit his head on the window, no loss of consciousness but some AOC for a few minutes. That evening he had nausea and a headache, however, he did not receive medical care or examination at that time. He describes his headache last three to five times per weeks, last all day and sometimes more than a day. It's throbbing advice trip and he rates it as 6 to 8 on a 10-point scale and mostly on his left side. It is irritated by light, especially florescent or computer light. He states over-the-counter medications takes the edge off but exercise or household chores or driving home at the end of the day makes it worse. We would assess, please go back one. We would use a clinical guideline application and assess for risk factors whether he has MOH medication, if he has frequent use of

analgesics are sedative hypnotic's, physical activity, and a whiplash, history of anxiety or depression, any musculoskeletal or G.I. complaints, and a sick leave of greater than two weeks in the past year and any smoking.

Next slide.

We would look at treatment options for his migraine headache. We can put them on pharmacological such as nonsteroidal anti-inflammatory drugs or angiotensin of receptor blockers or we could go with the northern no pharmacological group which would be recommendation for exercise their progressive strength training to help with management of headache, recommendation five which would be mindfulness-based therapies for the treatment of headache or recommendation six which is education regarding dietary trigger avoidance to help prevent his migraines.

Next slide please.

Now we will view a couple videos on case studies, one for opioid therapy and then on chronic pain opioid therapy and low back pain. A'Riel, if you could start the first video please. This is an episode of back pain. Use of oxycodone intermittently. He had increasing recurrent back pain for the last two years. On review of this chart, he had age-appropriate findings two years ago. He hasn't had any treatment for back pain beyond opioid medication and it [Indiscernible] he got back out there. He had worsening episodes of pain with longer periods. On further review there is an increased and sedentary lifestyle with weight gain, and he reports pain episodes leading to health care provider visits about three times per year. He never had oxycodone since three years ago buddy comes at the request of oxycodone dedication for his episodes of back pain. He's on approximately 500 milligrams every 12 hours as needed for pain but he does not take it every day. He has a prescription for nicotine patches that he uses when motivated to quit smoking cigarettes. On further review, he has had increased stress lately. He has two school-aged children at home. He has had trouble sleeping. You smoke cigarettes, he does not have a history of illicit drug use. Routine lab studies revealed normal findings. He had an x-ray three years ago with the findings normal. His back pain is occasional but does not radiate. On exam, he has diffuse tenderness over the lower back. There are no neurological deficits, but he does have moderate limitations in the range of motion of his lower back with a negative straight leg raising sign.

What would be the assessment and treatment plan for him? A very common case seen in our clinics all over our systems. It's a common situation for a patient with chronic back trouble. This is a chronic intermittent non-radicular back pain. We have a number of comorbidities are risk factors in this patient. He is overweight, BMI of 29, and Terry lifestyle, he is dependent on nicotine and smoke cigarettes. Although a significant piece of his problem his life express he doesn't have clear depression per se. This is a great opportunity for our providers to step back and think about what a whole person approach for this patient would look like. We should start with patient education. We talked about the resources we have available with CPG to assist providers and patients under the founding these issues on opioid medication. He should

understand his back pain as well. The provider can engage in discussion about weight and it given the level. Discussed options for increasing physical activity or physical fitness. It’s an opportunity to address nicotine dependency. Is also an opportunity to link his tobacco use with his back pain because we know smoking is a contributor for chronic pain including back pain? I think there is obviously a stress management role for this patient also and that might be group therapy, a health referral, relaxation and mindfulness resources but it's important when we start with this, we start with that whole person approach. Notice ball these comorbidities are risk back, we have not gotten to the actual back pain treatment itself and this is an important shift providers’ need to make in the clinical practice guideline encourages that. When it comes to treatment of back pain, we have a few options and we have them ordered according to the strength of evidence. Exercise and behavioral therapy are the mainstays for this condition. For the exercise therapy we could include aerobic or strength training, exercise counseling in group or referral to a physical therapist. We have a behavioral health therapy option, counseling sessions with the provider, could include groups very or referral to a psychologist, social work or psychiatrist. We should consider other approaches if they are available and if they align with patient values such as spinal manipulation as an adjunct to his care. We have a lot to offer this patient.

What about [Indiscernible] therapy?

This is a great example for a patient not to be on opioid. The risk outweighs the benefit. We say that because we have not Mac surmised other treatment options, especially no pharmacological treatment options in that whole person approach. This is a younger patient and we know he said higher risk and that's something we should factor into our discussion and a reason we should not prescribe opioids. Based on his imaging findings and examination there is no evidence of a major problem or an acute pain condition that just divides the prescription of an opioid. Here the risk outweighs the benefit.

I saw you listening intently. What are your thoughts? I agree with extreme caution of opioids in this case and with the broader plan to approach treatment from a person perspective. One thing I would like to explore is what factors may be contributing to this decline in functioning we are seeing in the two years since he has come home from deployment. Regardless of the case, it's always important to ask what factors in addition to pain may contribute to pain, suffering and disability. This doesn't mean that stress is causing pain, but we know we need more information about what's going on certainly in this case we asked does this gentleman have untreated PTSD the? These all influence the person’s pain and these need to be explored.

That was a short video clip case study for a patient about opioid therapy and chronic pain. We have a low back pain practice guideline.
The patient we are using, the 20-year-old comes into the clinic complaining of a three-day history of low back pain. He knows the pain began after he lifted furniture. He states he had intermittent pain doing jobs on deployment in the past year but those are self-limited and take care of themselves in a couple days and he never had a problem with the

last thing long. He comes in complaining of pain at currently eight out of 10. He has tried over-the-counter medication, but they don't help this time around. On further review, his behavioral history diagnosis is benign and when discussing review of systems there are no red flags. We would start with a physical exam. The patient is normal weight and otherwise healthy. On muscular exam he has some tenderness but there is a straight leg raise that is positive so generally but nine on neuromuscular exam. Showing how the patient was looked at based on the output of CPG. We will review this case step-by-step. We do a focused history and physical exam. Box 2 we reviewed those issues and found there was no significant things there. Box 3, our decision point. We did not find red flags and it was benign, we go straight down into box seven. Was back pain longer than three months which is no. This is a final box, our specific treatment recommendation. With this patient we would engage them in shared decision making and give advice about self-care. Hopefully we had a shared under founding of what we expected and what the patient can do to take care of himself. If he chooses pharmacological or no pharmacological, censuses self-limited we can consider no pharmacological and treat with heat or some activity changes in half-time take care of it and then self-care. With this patient our treatment recommendation would be to provide a Sayed's and we recommend a short course of muscle relaxants for 3 to 7 days. I would recommend education and giving him a handout to manage low back pain and that would be another resource to look at on the middle of the night if it was hurting they could find information. Encourage him to stay active with restrictions of certain activities and limit the bed rest. We like them to stay active. Again, the other modalities, thermal would be good to manage the pain. No jumping out of airplanes? [Laughter]. It's interesting the proper diagnosis and treatment. What about PT?

They did a great job of providing education and a concrete the patient can use in managing low back pain and providing good education. I think the only time PT would be needed is, the patient would not be able to return to activity or stay active independently. Do you think interventional medicine would be appropriate?

He's a young guy he had a few days of pain and it sounds like it’s a muscular strain or sprain. It's common in these medications should help. There was tenderness in the sacral area and maybe that indicates his SI joint has problems. It should get better on a zone. I would not do therapies, but I would give it time.

Rachel, and sates were mentioned. What do you have to say? I agree with offering an alternative if needed or an alternative muscle relaxant may be an option. I want to comment on one medication we do not recommend for treatment and that is cursive pro doll. That is shown increased risk of CNS depression and dependence, so we do not recommend that medication. Also, I think it's reasonable if the patient does not want to try a different medication, it is reasonable to offer no pharmacological modalities as well. Its four years now that is gone by, so he is 24 years old. He still has low back pain. He is entered into the VA health system and as part of that we do basic screening. His screening suggests possible depression and PTSD so those needs to be looked out. The pain is severe, nine out of 10. You got some relief after separation from the

military buddies gained 30 pounds and that's from being less active. His focused exam is nonspecific, it does not point to any specific area that's more painful than others. How would you treat this patient now?

We still have options. There are different types of NSAID out there so it would be worthwhile switching to a different NSAID, maybe something he hasn't had before or trying something like duloxetine. It's a reuptake inhibitor which we mentioned. I typically start at 20 or 30 milligrams because if you start too quickly at a higher dose, the patient may develop dizziness or nausea, those of the most common things I see. The treatment dose is around 60 milligrams. If you need more, you can push it higher, but the data shows good relief at 60 milligrams. Other things you can do is consult physical therapy, it's important to get colleagues involved. Also, clinician directed exercises, things that have shown beneficial for chronic pain but not so much for acute pain. Because these in the chronic setting it’s important to get them involved. Spinal mobilization and manipulation, things people CNS would be an appropriate time to consider those but with the caveat that these types of passive treatments need to be part of a functional program. The goal is to get enough pain relief with this treatment that they can be more active and participate because they have less pain.

Are there any injections or interventions that would help? At this point I don't think injections would be helpful for him. When I look at a patient for injection, I look for a clean target, something in which there is a complaint that follows a dermatome or my tome, weakness or neurologic symptoms that would allow me to be more aggressive about this. Every treatment has risks associated with it and with the gentleman having nonspecific symptoms, I don't think I have a clean target. We need to address the behavioral issues we talked about. When he first got screened there was a mention of depression and PTSD. We need to have that formally evaluated and make sure that we are not missing a diagnoses that might be there that can contribute to pain. Also getting involved in CBT and stress reduction, these are treatments that may help patients with chronic back pain. Finally, we talked about the 30-pound weight gain. That's a significant amount of weight put on so I think getting him to lose that weight through diet, nutrition and exercise would be meaningful for him long-term.

All right. We will continue. I am just waiting for the slide to upload. Next slide please.

Now that we have discussed the history of the clinical practice guideline in the way of what you through the key questions, these are the foundation for evidence based recommendations than we have discussed methodology, talked about low back pain, headache and algorithm, we wanted to share with you our secret ingredient to getting the clinical practice guidelines instituted and implemented in your medical treatment facility. As you see on the left-hand side of the screen, there is a manual for facility clinical practice guideline champions. This could document is available for download at our website and we have provided that URL to you under our files. Certainly, if you're trying to implement clinical practice guidelines in your medical treatment facility, this is a great way to start the process. We also recommend putting practice

guidelines to work in the Department of Defense medical system, it's a historical document but it still holds true in terms of the content of the document. As you have the opportunity, please look at them. I will briefly discuss what is in both of these, the champion manual as well as the brand manual.

Next Slide please.

As you get started with implementing VA/DoD guidelines, the first thing you want to consider is knowing your guidelines but even before you know the guideline, you want to back up a step. I mentioned earlier we have 24 clinical practice guidelines and quite honestly it depends on your medical treatment facility as to which guideline should be implemented. If you have a patient population that has or that is proliferative with Asmara Diomedes, low back pain or hyper D Mia or hypertension notes would be good guidelines to download and read to really learn the nuts and bolts. If you have a smaller medical treatment facility that you work in that you don't have a large patient population that has a lower limb amputation or upper limb amputation or a large population of stroke or things such as chronic kidney disease then I would not recommend using those is the first guideline to implement into your institution. I am an active clinician and I see patients here in Houston and the bulk of my, I've been a nurse practitioner for 20 years and recently my patients consist of young, active duty airmen, Marines, sailors and soldiers so we implement a lot of the back pain guidelines. That is the one you want to institute and implement in your medical treatment facility. Open the guideline and get to know what. Once you decide that's your way forward the next big step you want to do and I would hope this is been implemented but, if not, get command input, get command support, if you're trying to implement a guideline and you don't have leadership backing you it tends to be difficult to get that leadership support. If you have already been anointed as a clinical practice guideline champion by your leadership, then you're in so in terms of what to do next.

The next thing you want to consider is really assessing your current practice patterns, where those patients with low back pain primarily seeking their care and getting their care? Folk should not think that guidelines are only for primary care providers. Certainly, they are applicable for physical therapy can Salton as well as clinicians as well as nurses as well as dietitians as well as pharmacists so clinical practice guidelines really encompass the slot of our clinicians. As you move forward in the implementation process, make sure to include them in that you don't execute in a silo fashion. You will have an easier time in a much beneficial outcome for your patience when you engage with a diverse clinical workforce. Then you want to, after we assess the practice patterns, you want to compare the practice patterns with the medical practice guideline recommendations and identify those gaps, develop an action plan to close those gaps, implement that plan and then develop a system to monitor those practice changes.

Next slide please.

As I mentioned, talking about low back pain, we discussed leadership support. Most of our CPG champions were anointed out by their immediate

leadership. Frequently, however, will have folks and with a burning desire to be that champion and they want to know what are the next steps. You want to form an implementation action team, not just one man or woman out there trying to ensure the guideline is implemented in your primary care clinic but it needs to spread out to physical therapy, pharmacy, labs. It is been our experience over time that when folks try to implement guidelines they forget there is a lot of clinical matter or clinical subject matter experts and they try to do a one and done and they become frustrated. Make sure you include the subject matter experts in your action team. Then try a small-scale change in terms of changing the clinical variances are maybe not a variance but possibly an opportunity to improve some of the clinical components you are engaging in. We have had MTS, we haven't seen it in six or nine months but about 18 months ago we had quite a lot of MTS's that were automatically using L spine x-rays in terms of the assessment and treatment plan of patients with low back pain. Certainly, that is something you want to avoid when you implement a guideline on low back pain. So, this would be an opportunity to try to get providers not to use radiation in terms of treating their patients or as part of their treatment plan of patients with low back pain. You want to monitor your implementation progress and then as needed you and the team will develop an algorithm. The next step would beat him implement and modify the plan. We have some nice tools on our webpage that can help you if you are trying to work on low back pain in terms of getting providers away from high utilization of L spine in their patients that present with acute low back pain.

Next slide please.

We have talked a little bit about implementation and certainly I highly recommend that you take a look at our implementation manual, one size does not fit all, and certainly you know your clinical area better than I do to be sure. These are just some approaches you can use in terms of your way forward. The next component that we have shown that is been a multiplier for implementing DOD clinical practice guidelines or toolkits, we have shared with you that we uploaded those in the website on the left side of your screen. You can download those from the website. As we have had the opportunity to push forward with implementation, we have found that with small groups in terms of implementation, we can of course use our handouts either in a virtual format or hard copy to help our clinicians, help our patients and help our institution in terms of implementing those clinical practice guidelines.

I want to share a few of those with you today. Next slide please.

We have discussed algorithm and shown you a quick video. Quite honestly most people don't have time to read 198-page document in one sitting. If you have time in the interest, I recommend it. We spent over 18 months developing the guideline. At the time we had a former guideline that we were told by Congress to make congruent with the guideline from the CDC. At that time the CDC was told you well produce a guideline on opioid therapy. The CDC guideline was reviewed and subsequently as it could be incorporated into the opioid therapy for chronic pain, the clinical practice guideline, it was. There was quite a bit of information in the CDC guideline that was based on subject matter expertise and incongruence

with the methodology, we had to look at the evidence to see if the experts were correct in terms of how we were going to treat and care for our population that quite honestly has exploded in terms of opioid use. The clinician summary is definitely an easy reuse, it has the information you need in terms of the recommendations, the algorithms and you can review it in a few moments. We recommend you look at is the VA/DoD clinical guideline pocket card. The pocket card consists of a key element of the opioid therapy for chronic pain. It also has the algorithm, it has the recommendations, it is a folding document so you can certainly look at it virtually but if you are interested in having either of these products is a hard copy we can definitely send those to you. As mentioned earlier, just go on our website and establish an account and we would be happy to send these to you wherever you are located.

Next slide please.

The opioid therapy for chronic pain clinical practice guideline provider tool also includes the provider pocket guide for opioid therapy for chronic pain and you will notice that on the left side of your screen. It is specifically tailored for providers who may not have had an opportunity to have gone through the 198-page opioid therapy for chronic pain guideline. It really drills down which drugs you should consider using, which drugs you should not consider using, how long to keep your patient on opioid therapy. It's a good review and absolutely if you're not comfortable either placing your patient on her tapering them off of opioid therapy, we absolutely recommend you consider your subspecialist to help you in the process but this gives you a good overview of the items that were synthesized and shown to have evidence based in the guidelines.

On the left side of your screen in the slide you will notice the tapering and discontinuation of opioid. Quite honestly that is a hard task to accomplish. From my own clinical experience on active duty in the Army, I was not always located in a major medical center. Quite frequently and I think many people in the audience have had the experience, you are Bob on the flop, you're the guy in Iraq it's been deployed a couple of times who has patience that come in, they came in with pre-existing pain, pre-existing requests for opioids and trying to get those individuals to decrease the amount of opioids they use is challenging so this is essentially from the guideline and I referred you back to the guideline but in the moment you may need quick tips in terms of things you can do to taper your patient or if you have concerns there may be diversion over my career. I was deployed several times and had challenges and opportunities with patients who used opioids but also I was stationed a very small treatment facilities. Sometimes you are the guy or the gal that has the patient that comes in that you need some additional resources or additional help and certainly it's not always going to be a Pfc. who has the pain issue. Frequently I had, you may have experienced, patients that were higher ranking or may have had some higher visibility in terms of command structure so there is some sensitivity in there as well in terms of how do you treat the brigade chaplain or how do you treat a senior ranking officer who may have issues with opioid use and not compassionate, and a professional, in a therapeutic manner because some may have a preconceived notion of what your patient will look like

in terms of opioid therapy and every patient needs to be given a fresh opportunity and fresh dart in terms of how to taper them and just continue those medications.

Next slide please.

Now will talk about our patient tools for opioid therapy for chronic pain. Frequently we have had patients who were started on opioid therapy for various reasons certainly in terms of patients I have cared for that have had lower limb amputation and upper limb amputation, opioid therapy to begin with is a steady treatment modality. Then you have the patience that I have seen that say this is just too much for me. I really have to find something else I can use besides taking all this medication. Because we have had such a long history of using opioid therapy to care not only for service members and family members but also are dependent family members as well. In some cases teenagers have been may be given a larger dose of opioids for minor illnesses or minor disease processes so this booklet is a great tool to open that dialogue with your patient in terms of what we do now. Now that you've been on one term opioid therapy for chronic pain, how do we get you off of those medications? What are those therapies are modalities and how do we care for the outpatient with care, with understanding and diminishing judgment? The document on the right is managing side effects and complications of opioid therapy for chronic pain. I have had many soldiers who have been placed on opioid therapy the last 10 or 15 years and this is a great booklet that we have utilized to help folks understand what it is we need to do to help them care for not only their pain but also the second and third order effects of long-term opioid therapy and what do we need to do next to get to the next steps to diminish or get them off of opioid therapy? It’s complementary, it’s on our shopping cart, as a retiree if it’s free it's for me so shop until you drop. Feel free to get on our shopping cart and take advantage of these high-quality products.

Next slide please.

The next document we are going to share with you is the VA/DoD guideline for diagnosis and treatment of low back pain. This guideline is 110 pages in duration. This gives you a nice synthesis of the products from the 110-page guidelines. It contains the recommendations and algorithms and dosing of agents for the treatment of low back pain. I like the pocket card because in a pinch if you try to remember a medication or remember a treatment, the pocket card is virtual, but you can also order a hard copy. It folds up nicely. You can stick it in your pocket. If you are virtually more inclined, you can download it on your desktop, and it gives you a nice sketch of treatment and assessment and care for your patient that presents with low back pain.

Next slide please.

Speaking of managing low back pain, this document is for patients at present with acute low back pain. Frequently how many minutes do you get to see a patient? You might get 10 minutes, 12 minutes, eight minutes and so many patients you can share a virtual copy with them if you have time but also it's nice to give patient things they can do during their

duty days to help improve their low back pain. What you see before you is the actual product that shows encouraging patients to sit correct play, how to facilitate laying down correctly, some of the other pictures on how to get in and out of the car correctly. It's a great product to give folks a visual aid. One picture is worth 1000 words our product helps get that across.

Next slide please.

Frequently are patients that come to see us who have low back pain, they want an MRI. Sergeant got an MRI when he came in with low back pain, so I want an MRI for my low back pain as well. This product was developed to assess if you really needed an MRI to go through what an MRI was in the clinical at comes of the patient's, what they could expect with the evaluation of an MRI. As you talk your patient out of an MRI, particularly when everyone got one, this is a great product to share with them. The clinical components of why an MRI may not necessarily be the right treatment choice for them.

Our last guideline we want to share with you and our last pain topic clinical practice guideline as a primary care management of headache. This is brand-new, it came out this year. This was the guideline that was mandated by Congress because it is a significant clinical issue, not only across the veteran's health but certainly across the DOD as well. The clinician summary is an abbreviated version of the 150-page guideline and the pocket card contains a headache algorithms and recommended treatment options for headache. We have discussed that today briefly with you during the case study. Because the guideline is literally just finished a few months ago, we are currently underway in developing additional patient and provider tools which we hope to have available in our shopping cart later this year.

Next slide please.

I like chickens also, not just dogs and cats but chickens too. It's Wednesday, midweek hump day. You have been amazing so it's a heck of a time to talk to people. I want to give you guys the next 10 to 12 minutes for any questions and answers. Any final remarks before we open the floor to questions?

Now, let's open the floor. Either we have stunned you with our brilliance or you are asleep. I will go with the former. We are available on the global if you have any questions after today's presentation, by all means please feel free to reach out to us. We would love to have you as a new customer on our shopping cart. Certainly, if you have issues or questions about implementation of the VA/DoD guidelines, we would be delighted to point you in the date right direction and give you tips of the trade and tools. I don't see any questions in the chat box, and we have nothing further at this time. I will give you 11 minutes and 14 seconds back to your day. Thank you very much. Have a great day.

I want to say thank you for providing us with this great information today. Please remember to find the sign in sheet and send it to the email I posted in the chat. If you cannot download that, please leave me your

name and I will send it directly to you. This concludes our training for today. Thank you.

Thank you everyone. Be safe out there. Enjoy the rest of your day.
[Event concluded]