IMPROVEMENT IN CARE FOR PATIENTS WITH MEDICALLY UNEXPLAINED SYMPTOMS (MUS)

Slide 1 Title

Hello. I'm Colonel Charles Engel, the Director of the Deployment Health Clinical Center and an associate professor of psychiatry at the Uniformed Services University of the Health Sciences. Today I'm going to be talking with you about Medically Unexplained Symptoms or MUS and the DoD/VA Clinical Practice Guideline for Medically Unexplained Symptoms.

Slide 2 Presentation Objectives

The objectives for this presentation are to:

- Review the patient assessment process described in the DoD/VA Clinical Practice Guideline for Management of Medically Unexplained Symptoms (MUS-CPG)
- Discuss non-pharmacologic and pharmacologic therapies for Medically Unexplained Symptoms, and
- Identify tools that have been developed to support you as you manage medically unexplained symptoms according to the MUS-CPG

Slide 3 Comparison of Rates of Physical Symptoms in Veterans

The table you see before you is from a United Kingdom study of Gulf War veterans comparing them to Bosnia veterans and Gulf War-era veterans not deployed to the Gulf. What you can see in the blue band is that Gulf War veterans have clearly elevated rates of symptoms. This is consistent with many other studies.

Slide 4 Post-War and Post-Deployment Syndromes, A Unique Phenomenon?

Others have used this finding to prompt them to go back into the world literature and have found elevated rates of symptoms and poorly understood war syndromes have been associated with armed conflicts since at least the US Civil War. These war syndromes have involved fundamental, unanswered questions about the importance and etiology of chronic somatic symptoms.

Slide 5 Unexplained Physical Symptoms, Medicine's "Dirty Little Secret"

For those who have cared for patients in general, medically unexplained symptoms are nothing new. About a third of patients who see primary care doctors report symptoms that the doctors are unable to fully explain. Some of these symptoms are listed on this slide arranged by the medical specialties that care for each of these patient groups.

Slide 6 Why Focus on Post-Deployment Health Care? ...because our workplace may be hazardous to health

In fact, it really needs to be emphasized that working in a deployed capacity is a hazardous workplace and when people return from these sorts of settings, we owe them a high level of care whether or not we are able to find a specific cause for their symptoms.

Slide 7 Institute of Medicine Report

In agreement with that, various blue ribbon panels including the Institute of Medicine have recommended that the Department of Defense and the Veterans Administration implement specific strategies to better treat medically unexplained symptoms in populations of people who have made sacrifices for their country.

Slide 8 VA/DoD Medically Unexplained Symptoms Clinical Practice Guideline

In response to these recommendations, the Department of Defense and the Veterans Administration have developed a Clinical Practice Guideline for Medically Unexplained Symptoms. This Guideline was first released in August 2002.

Slide 9 Definition of Medically Unexplained Symptoms

In discussing the Guideline, the first thing to note is the definition of Medically Unexplained Symptoms. The definition is "symptoms that remain unexplained after an appropriate medical assessment that includes focused diagnostic testing", and I should add at this point, that these symptoms are causing the person problems in their life to such a degree that they bring the patient into the medical care system seeking evaluation and treatment. The experience that these patients have with clinicians is often very frustrating and distressing, and as clinicians we know that it can be very challenging and potentially frustrating for us, but it is important for us to keep in mind at all times that it is infinitely more frustrating and difficult for the individual who is experiencing these symptoms on a day-to-day basis.

Slide 10 Areas of Assessment

At this point, I would like to review the process for assessing patients with medically unexplained symptoms that is laid out in the CPG. In many ways, assessment of individuals with MUS is no different from the evaluation of any medical concern. At the same time, there are some special aspects to the assessment that we should mention. We've broken down the assessment into six categories. The first area, the basic assessment, is familiar to us as clinicians. Individuals with MUS need to have a thorough medical assessment that we would perform in any medical encounter, including a history of the chief complaint and present illness, past medical history, psychosocial history, review of symptoms, review of systems, physical examination, mental status examination, and routine laboratory testing. One element, which is somewhat unique to caring for this type of patient, is that we need to clarify the patient's symptoms in

significant detail. This process helps us begin to build a therapeutic relationship and a trusting alliance with the individual we are caring for. In building this therapeutic relationship, it is very important for us to pay attention to our own attitudes and beliefs about MUS. For examples, a recent study of clinicians regarding their beliefs about MUS provided some interesting results.

Slide 11 Differing Perspectives on "Persian Gulf Illness"

This slide shows the results when internists and mental health providers were asked about their beliefs regarding Persian Gulf Illness or Gulf War Syndrome. The blue bar represents mental health providers and the gold bar represents internists. When asked to what degree do you believe Gulf War Illness is a physical disorder, we see that mental health providers more often tended to indicate that they believed it was a physical disorder. Alternatively, internists tended to believe that Gulf War Illness was more of a psychological or mental disorder. The corollary of this in terms of what they would recommend for treatment is that the mental health providers felt that biological or physical medical interventions were most important, while the internists felt that psychological interventions were more likely indicated. We can see that when there is a difference of opinion about etiologies among providers, it can potentially create a confusing situation for patients as well.

Slide 12 Medical Record Assessment

The second area of assessment is the medical records review. In these situations, individuals have often had earlier evaluations, perhaps several earlier evaluations, and because of this, it is very important that we thoroughly review the medical records. This record review will help in at least two ways. One way is it will help prevent unnecessary diagnostic testing or repeat testing which can be pointless and frustrating to the individual involved as well as an unwise use of resources. Also it will improve the understanding that the clinician has of the experience of the individual and enhance the trust that the individual has for the clinician because they know that their history has been taken into account and the clinician knows what has occurred up to that point in their illness.

Slide 13 Urgent Condition Assessment

The next area of assessment involves assessing for urgent or emerging diagnosable medical conditions. When individuals come in with MUS, they may have other symptoms that are related to potentially urgent or emerging diagnosable conditions. If there are situations that involve mental health concerns which could be urgent such as depression, suicidal ideation and so on, or if there are acute changes such as joint swelling, fever, other abnormalities found on physical examination, these conditions must be adequately assessed.

Slide 14 Diagnostic Testing

The next area of assessment is focused diagnostic testing. We need to make sure that we evaluate each of the patient's symptoms thoroughly and appropriately before we attribute them to being medically unexplained. In terms of initial evaluation, the tests that were used for Gulf War veterans were basic laboratory evaluations which included CBC, electrolytes, glucose, liver function tests, thyroid studies, sedimentation rate, and urinalysis. These are tests that any clinician would generally order to evaluate a person with several systemic conditions which may seem to be part of a systemic illness. When there is a high index of suspicion, more elaborate testing, serology for example, Ebstein Barr virus, Lyme disease, immunologic testing, neuroimaging may also be indicated. The purpose of the Guideline, however, is not to instruct physicians on how to do comprehensive evaluations of various symptoms. The purpose of the Guideline is to provide guidance once the clinician has established that an individual seems to have symptoms that are medically unexplained.

Slide 15 Relationship of Disease and Illness

Before the decision is made that the individual has symptoms that are medically unexplained, we must determine whether there is a disease to explain the symptoms and if so, identify the disease and manage it appropriately. In identifying a disease, a graphic that has been very helpful to me is this slide. It gives us a model for understanding what may be a difference in what the clinician is focusing on and what the individual or patient or veteran is focusing on. Disease, which is shown in the purple circle on this slide, is a pathophysiologic entity defined in medical textbooks, and it is what we tend to focus on as clinicians. Illness, on the other hand, is the subjective experience that individuals have of not feeling well, of having symptoms, of having disturbances in function and impairments in their daily living because of not feeling well and of having symptoms. Sometimes there is an overlap between disease and illness. Most situations we encounter in medicine involve symptomatic disease. There are situations, however, in which we have asymptomatic disease, in other words, disease with no illness, at least initially, such as hypertension or diabetes. The most important thing to remember is that we can have illness or symptoms without disease, and this Guideline really focuses on how to approach individuals who have illness and do not have symptoms of disease. Our goal is to treat the entire individual, both circles, and not just focus on disease.

Slide 16 Symptom Assessment

The next area of assessment again warrants special mention. Since in these situations there is no diagnosable disease that we focus on, and the experience the individual has with their symptoms is the primary focus, we need to spend time with the individual in order to fully understand the symptom experience and how it affects that person. This includes determining the onset and duration of the symptoms, precipitating factors, and what was going on in the person's life at that time in their life.. If pain is one of the symptoms, it is important to determine exactly where the pain is located, whether it is always present, and whether it differs in different locations. It is important to determine

whether there are comorbid conditions that could be contributing to some of the symptomatology, either mental health conditions or physical health conditions, where the individual has had similar episodes of MUS in the past, what is the intensity and impact of the symptoms, and whether the individual has had previous treatment for the symptoms. All of these questions are part of a thorough medical, surgical, and psychosocial history. One area that is particularly important is determining what the individual's beliefs about the symptoms are. The patient's attributions and beliefs about what may have caused the symptoms, what the prognosis may be that can have an impact on the clinical course, and it is important that we discuss with the patient what his or her beliefs are to be sure that there are not beliefs that could somehow be harmful or negatively impact the clinical course.

Slide 17 BATHE Technique

In evaluating symptoms, there is an interview technique that is called the BATHE technique. This is in the tool kit that I will discuss later. The BATHE technique is a mnemonic for Background, Affect, Trouble, Handle, and Empathy. Let's go through these one at a time. Background – a symptom doesn't occur in a vacuum. It occurs in individuals that may have many other things going on in their life. Finding out what is going on in their life and what is going on in their work life, their family life, and at home is important. Affect – How do you feel about this symptom? How is this symptom affecting your mood? Are you depressed, frustrated, angry? What sort of troubles are you experiencing because of your symptoms? Again, is this affecting your life, your work, and your family? And what helps you handle the symptom? The clinician should really focus on self-management techniques and what sorts of self-management techniques might work for the individual in finding ways to live comfortably with their symptoms and finally, Empathy – going back to the slide on illness and disease, sometimes as clinicians we are tempted to feel that if we can't find a disease, if we can't diagnose a disease, then essentially there may be nothing wrong, and all we can say is that we can't find anything. It's very important that we empathize with the patients so that they know we understand that this is a very difficult situation for them. Of course they are going to have strong feelings, feelings of frustration, anger, etc. associated with their experience and demonstrating that we empathize with them will help in our long-term working relationship so they can trust that we do understand what's going on with them.

Slide 18 Standardized Assessment and Reassessment of Symptoms

In terms of assessing intensity of symptoms, we can use assessment tools such as pain intensity scales. On a scale of 0 to 10 with 0 being no pain and 10 being pain as bad as you can imagine, what number would you like to say your pain has been over the past week? This would be an important thing for us to know in terms of how the symptom is affecting the individual. If they are not experiencing pain, whatever symptom they are experiencing whether it is paresthesia, a gastrointestinal symptom, or cardiac or pulmonary symptom, how is it affecting your life over the past week? So again, what is primarily important is the symptom and understanding how it is affecting the individual

and his or her life so that we may intervene in ways that may help the individual to have a healthier, more functional life, even if the symptom cannot be eradicated.

Slide 19 Disease Assessment

The next area of assessment is assessment of disease. Again we need to assess for mood disorders, mental health disorders, anxiety disorders, substance use disorders. All of these are at times associated with MUS. We need to assess for sleep apnea and other sleep disorders, and other multisymptom disorders that may contribute to these symptoms.

Slide 20 Symptom-Based Condition Assessment

There are a number of symptom-based conditions that we need to keep in mind when we are evaluating individuals with multiple medically unexplained symptoms. These conditions include chronic multisymptom illness, chronic fatigue syndrome and fibromyalgia.

Slide 21 Chronic Multi-Symptom Illness

Chronic multisymptom illness is a condition for which the case definition was derived from Gulf War veterans' experiences. Essentially if the individual has two or more of symptoms of widespread pain, persistent fatigue, cognitive dysfunction, they would meet the criteria for chronic multisymptom illness. Often this condition is also associated with other somatic symptomatology and associated disability.

Slide 22 Chronic Fatigue Syndrome

Case criteria have been established for Chronic Fatigue Syndrome (CFS) and also for fibromyalgia, and if individuals meet these criteria, they should be diagnosed with these conditions. CFS, for example, should be considered if an individual has unexplained, persistent, relapsing fatigue, not the result of exertion, not alleviated by rest, resulting in reduction of their functional levels,

Slide 23 Chronic Fatigue Syndrome (continued)

and if they have additional symptoms that might include memory impairments or other cognitive impairments, adenopathy, myalgias, arthralgias, headaches, sleep disturbances and so on. Individuals who meet these criteria should be diagnosed with CFS, and there are treatment approaches that are specific to CFS that may be helpful.

Slide 24 Fibromyalgia Syndrome

Similarly with fibromyalgia, criteria for diagnosing fibromyalgia have been established that include history of widespread pain involving all four quadrants of the body and

tenderness to digital palpation of tender points or tenderness to palpation in general, and individuals who meet criteria for this condition should be diagnosed with fibromyalgia.

Slide 25 Summary of Areas of Assessment

So again in review, the areas of assessment are: the standard medical assessment, medical record review, assessment for urgent medical conditions, thorough assessment of the symptom experience, assessment for comorbid disease, and assessment for potential symptom-based conditions such as CFS, fibromyalgia and chronic multisymptom illness. If clinicians keep in mind all these areas of assessment, it will help them in both understanding and responding to the experiences of individuals with MUS.

Slide 26 Symptom-Based Management

One of the key elements in the Guideline is symptom-based management. We felt that it was really important that clinicians consider symptom-based management early. Individuals with medical symptoms want relief and help with distressing symptoms. Even if the clinician has not established a clear etiology or cause for symptoms, it is very important to begin symptom-based management to provide patients with relief and support and also encouragement that there are things that can be done to help them in their situation. So early on, the clinician should consider symptom-based management, regardless of whether or not an etiology for the symptoms is established. Early interventions should include restoration of sleep and management of pain. Also, after the treatment plan that involves primarily symptom management strategies has been implemented, it is important to monitor the individual regularly according to how they are responding to symptom management strategies and adjust the management plan as needed. It is also important to monitor the patient regularly for potentially evolving diagnosable conditions and simply for encouragement and for support.

Slide 27 Non-Pharmacologic Therapies of Maximum Benefit for MUS

Next I would like to discuss the non-pharmacologic therapies that can be used for medically unexplained symptoms. As you might expect, these therapies are usually not directed toward the underlying cause of the symptom so much as they are directed toward the causes of disability. The therapies that have been found to be of maximum benefit for medically unexplained symptoms are: Cognitive-Behavioral Therapy and Graded Aerobic Exercise. These are both rehabilitative therapies rather than curative, biomedical therapies.

Slide 28 Impact of Disability and Symptoms on Quality of Life

To give you a sense of what I mean by that, if you look at this slide, the upper half shows how disability and symptoms impact on health-related quality of life. Essentially, medically unexplained symptoms increase distress, decrease functional status and can result in harmful health behaviors as well as harmful health beliefs. Both of the maximally beneficial therapies identified on our evidence-based reviews, Cognitive-

Behavioral Therapy and Graded Aerobic Exercise, rely on decreasing the impact of medically unexplained symptoms on health behaviors, health beliefs, functional status, and psychosocial distress thereby improving the health-related quality of life of the person who is ill.

Slide 29 What Is Cognitive-Behavioral Therapy (CBT)?

Cognitive-Behavioral Therapy is a therapy targeting perpetuating factors of disability. To illustrate a little bit more graphically how one goes about this approach, it's useful to think about how both patient and clinician define the effect of illness on health status when the patient first comes in.

Slide 30 Unexplained Symptoms, The Patient's Initial Model

Naturally, when the patient first comes in, they are thinking about the causes of their illness in relatively simple terms, that some exposure or disease is resulting in symptoms and resulting in loss of functioning. Perhaps, not surprisingly, many patients are a bit defensive at this point if the clinician asks direct questions about psychosocial concerns because those questions are interpreted to mean that perhaps the clinician believes that the cause of the illness and the cause of symptoms and disability is a mental disorder.

Slide 31 Unexplained Symptoms, Expanding the Model

The reality is a whole lot more complicated, of course, and if one asks patients with medically unexplained symptoms to explain the impact of their symptoms on their life, they will quickly describe a range of effects, such as effects on their activity levels, effects on their beliefs about how activity levels make them feel, effects of their symptoms on their environment, for example, perhaps there are family members who are having difficulty supporting them, or a workplace that is having difficulty supporting them and emotional effects as well. It's not a far stretch from there to convince patients that all of these factors are strongly interrelated, and even though you as a physician may not be able to directly address the cause of disease, you can address almost all of the other challenges that result from the patient's symptoms.

Slide 32 Unexplained Symptoms, Expanding the Model (continued)

These challenges essentially become a very difficult reverberating system, a snowball of disability, if you will, which requires more rehabilitative approaches to reverse. In a cognitive-behavioral framework, there are both cognitive things that one does and behavioral things that the clinician initiates or helps the patient initiate.

Slide 33 Common Cognitive Components

The common cognitive components are listed on your screen. These include examining assumptions about cause of illness and appropriate management of illness. Many of the patients you'll see feel that if someone can find just the right diagnostic test, it will be the

trick to the situation. Shifting their mindset to focus on some of these downstream effects of their symptoms is an important part of Cognitive-Behavioral Therapy. Other cognitive components include problem-solving, relaxation techniques, and early symptom recognition so that the patient can initiate relapse prevention strategies.

Slide 34 Common Behavioral Components

Behavioral components of Cognitive-Behavioral Therapy include activation strategies. In fact, exercise is very naturally integrated into a cognitive-behavioral framework. Sleep hygiene, leisure activity planning (because patients who are burdened with unexplained symptoms often become isolated and discontinue planning things that they would normally enjoy), and simply setting goals and attempting to follow those goals can have a very big impact on an individual's level of disability.

Slide 35 What Is Graded Aerobic Exercise?

Let me now move to Graded Aerobic Exercise as the second maximally beneficial therapy for medically unexplained symptoms. First, it's important when dealing with veterans and with soldiers and others in the military to help them understand that we're not talking here about airborne physical training. Often you have to overcome some of the beliefs that these folks have about what constitutes legitimate aerobic exercise. In fact, in Graded Aerobic Exercise, we are talking about integrating usual life activities, preferably activities that people normally enjoy, and increasing those activities in a slow graded fashion. The Guideline offers in one of the appendices, a description of a program of Graded Aerobic Exercise.

Slide 36 Other Therapies for MUS

Other therapies which we found were of possible benefit, but evidence was not strong to support maximum benefit, are listed on this slide. One thing to note is that both Cognitive-Behavioral Therapy and Graded Aerobic Exercise are multi-modal approaches. It's not just one thing that you are doing to help the patient. I will be talking about pharmacologic strategies next, but this is not an either/or situation. For most of the interventions that were found to be of possible benefit, the situation is usually such that in isolation it's hard to show their impact, but when they are combined with an overall program, the impact is greater. It's really important to mention one potentially harmful therapy for medically unexplained symptoms and that is bed rest. Historically, physicians are caretakers of acute disease and have offered rest and respite for patients who are ill. With chronic illness in general and medically unexplained symptoms specifically, bed rest can be a self-defeating strategy because it can result in deactivation, loss of muscle mass, decreased cardiovascular fitness and some longer term problems as well. So we do not recommend that clinicians offer bed rest as a therapy for patients with medically unexplained symptoms.

Slide 37 Pharmacologic Therapy

Now I am going to discuss the use of pharmacologic therapy in the management of patients with fibromyalgia and chronic fatigue syndrome. Data that I presented earlier suggests that people tend to view these illnesses either as biological in which case they tend to like to use pharmacologic interventions or view them as more psychological in which case they like to use non-pharmacologic interventions. There is a lot of evidence that has accumulated over the past 10 to 15 years that has given us a lot better understanding about what is going on in this spectrum of illness with respect to the neurobiology, and I'm just going to review the data because in some cases that information will help individuals decide what medications might be helpful and understand why these medications might be working.

Slide 38 Dually Focused Treatment

For example, there is very good data suggesting that a number of different types of quote unquote stress seem to be capable of triggering this spectrum of illness. The types of stress that seem to be capable of triggering this illness would include things like motor vehicle accidents, emotional trauma and, infections. We know that for a whole variety of these different types of stressors, a subset of individuals who are exposed to these stressors never regain their normal health even after the stressor goes away. So after the infection goes away, after the motor vehicle accident goes away, they are left with chronic pain, chronic fatigue and medically unexplained symptoms. We also know a great deal about the fact that these illnesses tend to run in families so that there are genetic factors clearly playing a role in predisposing people to this spectrum of illness. And finally, and one of the reasons I like showing this slide, this is a slide from Leslie Crawford who does a lot of stress research, showing this little mouse here in an inner tube. Animal work, in particular, has taught us a great deal about how the environment and stress interact to cause different physiologic changes. The exact same stressful event that occurs in a different environment, especially in environments where an animal or humans have a lack of control or a lack of support, can lead to entirely different physiologic consequences. So we have some sense that some combination of stress, bad genes and poor environment leads to symptom expression, and there is a great deal of evidence suggesting that the underlying problem in this spectrum of illness is the central nervous system. There is some type of dysfunction in the central nervous system of individuals who have this spectrum of illness. When these symptoms occur, symptoms like pain, fatigue, again the types of symptoms that have been mentioned already, there are behavioral and psychological consequences. People have decreased activity, poor sleep, increased distress and maladaptive illness behaviors. What hasn't yet been stressed is that these types of behaviors have an impact on neurobiology such that when you decrease your activity level, we know that there are neurobiological mechanisms that kick in and increase pain and fatigue, just as a consequence of decreasing your activity level. The same holds true for poor sleep, the same holds true for distress and for some of the maladaptive illness behaviors that can occur in this spectrum of illness. So when you look at this cycle, you see that it is almost impossible to be dualistic when dealing with someone with MUS because neurobiology leads to behavior and behavior leads to

neurobiology, and we really have to address both aspects and dually focus the treatment. Before I start talking about specific medications, I should just mention that there are no FDA approved compounds for this spectrum of illness, so all the drugs I will be mentioning are off label uses of these medications.

Slide 39 Pharmacologic Therapies of Some Benefit for MUS

As a class, the most effective class of drugs for this entire spectrum of illness seems to be tricyclic compounds. Tricyclic medications, such as amitryptyline and cyclobenzaprine, are the best studied, and it seems that these tricyclic medications, which have the worst side effect profile, have the best beneficial effects in individuals with illnesses like fibromyalgia. One of the problems when prescribing these medications is determining ways that individuals can tolerate these medications better. One of the strategies that seems to work in this regard is that giving a single dose at night time, usually 2 to 3 hours before bedtime rather than right at bedtime, can help improve the morning sedation that occurs with some of these medicines. Other types of strategies that can be helpful, not only with tricyclic medications, but with all the interventions that we are using even something like exercise, is to begin at a very low level and increase very slowly. Individuals with MUS don’t tolerate large changes in medication doses, just like they don’t tolerate large changes in their exercise regime.

Slide 40 Pharmacologic Therapies of Some Benefit for MUS (continued)

Other classes of medications that seem to be effective and which evidence shows are of some benefit in MUS are all neuroactive compounds in one way or another, supporting the notion that these disorders originate in the Central Nervous System. Monoamine oxidase inhibitors (MAOI) have been shown to be effective, especially in treating the fatigue associated with MUS. Unfortunately the MAOIs that are available at this time in the United States have unfavorable side effect profiles, but there are newer classes of MAOIs that are available in other parts of the world and are likely to become available in the US in the next several years. Other compounds that have been shown to be effective include mixed serotonergic/noradrenergic drugs that are typically marketed as antidepressants, and it is interesting that the evidence seems to point to the fact that pure serotonin reuptake inhibitors or pure noradrenergic reuptake inhibitors are not nearly as effective for treating symptoms that are associated with these illnesses as are the mixed serotonergic/noradrenergic compounds. Finally there are a couple of compounds such as gabapentin (or Neurontin) and tramadol (or Ultram) which are particularly effective for treating the pain associated with this spectrum of illness, but in contrast to the tricyclic drugs which seem to be globally effective and also improve insomnia and fatigue, these medications typically will only address the pain that occurs in this spectrum of illness.

Slide 41 Pharmacologic Therapies of No Benefit/Possible Harm for MUS

The panel that developed the MUS-CPG also felt that there was some evidence suggesting that either there was no benefit to certain pharmacologic therapies or that they could be potentially even harmful. Examples of these classes would be corticosteroids,

therapies that are based on the theory that these illnesses are due either to an immune predisposition or a viral or bacterial infection. Those anti-infective or immune-based therapies are not recommended. Likewise, therapies that are based on the notion that this is an allergic problem are not recommended. Other therapies that have been shown not to be effective in clinical trials include fludrocortisone (or Florinef) which can be effective for treating neurally-mediated hypotension but doesn't seem to be effective, at least in the one good study that has been done, in treating the cardinal symptoms of chronic fatigue. Finally there are some data suggesting that a few nutritional supplements might have limited efficacy in this spectrum of illness, but in general the panel felt that those were of no benefit or potential harm just because of the fact that the weight of evidence did not support the use of nutritional supplements.

Slide 42 VA/DoD MUS-CPG Tool Kit, Contents

As the final part of this presentation, I am going to briefly describe the tool kit that has been produced by the Department of Defense and the Department of Veterans Administration to supplement the Medically Unexplained Symptoms Clinical Practice Guideline. As you can see on this slide, the tool kit contains a number of items that can be helpful for the busy clinician. The Provider Reminder Cards provide a handy, readily available summary of the most important aspects of the MUS Guideline. The Assessment and Diagnosis Pocket Guide defines the terms "MUS" and "CFS". It includes reminders on the questions that a clinician may want to ask to provide a thorough exploration of a patient's symptoms. On the other side of this card, the criteria for fibromyalgia is listed and the BATHE technique outlined. The Treatment Options Pocket Guide lists the pharmacologic agents for CFS and fibromyalgia, including, doses, effectiveness and main adverse effects. The reverse side lists specific interventions that are not recommended for patients diagnosed with CFS or fibromyalgia. The Guideline Summary provides a 17-page distillation of the comprehensive 110-page MUS-CPG. The complete algorithm includes box numbers that link to the comprehensive guideline providing a rapid reference source that allows the clinician to maximize time with the patient while minimizing time spent looking up guideline details.

Slide 43 VA and MEDCOM Web Sites, Provider Tools

The VA's Office of Quality and Performance provides a Web site that lists all of the approved VA Clinical Practice Guidelines. For each CPG, all the development materials are supplied. The US Army MEDCOM Quality Management Office's Web site provides many of the same resources as the VA site. In addition, a link is provided to permit military medical treatment facilities to order tool kit items online.

Slide 44 Web Support for Post-Deployment Health Care www.PDHealth.mil

The DoD Deployment Health Clinical Center, which is a DoD Center of Excellence for Post-Deployment Health, maintains a Web site at www.PDHealth.mil. The Web site is initiated as a Web-based tool in support of the Post-Deployment Health Clinical Practice Guideline to distribute timely information to clinicians on deployment-related exposures

and post-deployment health issues. It contains information and related links to all the clinical practice guidelines and clinical assessment tools. It also provides patients and their families with information to help answer questions regarding deployment-related health concerns.

Slide 45 DoD/VA Post-Deployment Health Clinical Practice Guideline (PDH-CPG)

The DoD/VA Post-Deployment Health Clinical Practice Guideline is an evidence-based guideline for the evaluation and management of patients with deployment-related health concerns and conditions in the primary care setting. It was initiated in January 2002 and consists of three algorithms, one of which is for evaluating and managing patients with deployment-related medically unexplained symptoms. The PDH-CPG has its own Toolbox with laminated Provider Desk Reference Cards, including a card on MUS.

Slide 46 Medically Unexplained Symptoms Patient Education Brochures

Returning to the description of the MUS-CPG Tool Kit, it also contains a brochure entitled Self-Care of Medically Unexplained Physical Symptoms. This pamphlet provides self-help information on a number of symptoms commonly experienced by individuals suffering from this condition and provides a frank discussion on realistic expectations while sending the clear message that there is hope.
The Deployment Health Clinical Center has also produced a brochure on MUS for re-deploying service members. This brochure was designed to introduce the concept of medically unexplained symptoms and to provide advice to service members who may experience troublesome symptoms after returning from deployment.

Slide 47 Key Elements of MUS-CPG

In conclusion, I would like to briefly review the main steps in identifying and managing patients with MUS. First, we need to determine if the patient's symptoms fit the definition of medically unexplained symptoms. Then we need to obtain a thorough medical history, physical examination, and medical record review. We need to perform focused diagnostic testing, trying to minimize low yield testing. We need to clarify symptoms carefully and build a therapeutic alliance. We need to pay attention to unstable or urgent conditions and be sure that there are not diagnosable diseases to explain the symptoms. We need to consider symptom-based management early. We need to assess for symptom-based conditions such as CFS and fibromyalgia. We need to negotiate treatment options and to provide appropriate patient and family education. We need to maximize the use of non-pharmacologic therapies that empower patients to take an active role in their recovery. Finally, we need to adjust management strategies based on patient response and monitor individuals with unexplained symptoms on a regular basis. So hopefully, keeping in mind these key elements, you as the clinician will have a foundation for creating an approach for managing individuals with medically unexplained symptoms.

Slide 48 Questions, Information, Assistance

This concludes my discussion of the VA/DoD Clinical Practice Guideline for Medically Unexplained Symptoms. I encourage all healthcare providers to go to the Web to familiarize yourselves with the Guideline along with the tools that support it. If you need assistance or have questions regarding this Guideline, you can call the Deployment Health Clinical Center's Clinician Helpline at 1-866-559-1627.

Slide 49 Credit

This presentation was adapted in Jan 06 from the MUS-CPG Satellite Broadcast Jun 02.