

EPISODE DETAILS		
PODCAST:	Picking Your Brain	Subject: Progressive Return to Activity
FEATURES:	Host: Kate Perlman	Interviews: Dr. Keith Stuessi, Amanda Gano, Dr. Adam Susmarski
TITLE	PRA and Safely Returning Service Members to Duty	Run Time: 13:31

**Kate:** The views, opinions, and findings contained in this podcast are those of the hosts and subject matter experts. They should not be construed as official Department of Defense positions, policies, or decisions unless designated by other official documentation.

The mission of the Traumatic Brain Injury Center of Excellence's Clinical Affairs Branch is to develop a variety of clinical recommendations and tools for military medical providers. These resources help ensure the delivery of quality care in the treatment and rehabilitation of service members and others living with traumatic brain injury, or TBI. One of the main components of this mission is to support military medical providers caring for service members and those affected by TBI. Out of all the clinical information and resources, TBICoE has to offer, three clinical tools support the Department of Defense's Instruction on the Management of Mild Traumatic Brain Injury or Concussion in the Deployed Setting: the Military Acute Concussion Evaluation 2 (or MACE 2), the Concussion Management Tool, and the subject of this "Picking Your Brain" episode: the "Progressive Return to Activity Following Acute Concussion clinical recommendation," or PRA. The PRA is a step-by-step approach for primary care providers to use in evaluating service members who sustained a concussion, also known as a mild TBI. Health care providers can use these steps to monitor service members during recovery, and guide them as they gradually return to pre-injury activities. You can download the PRA at www.Health.mil/TBIProviders, or by clicking the link in the episode notes.

Originally developed in 2014, the PRA has recently been updated based on a review of current research and the expertise of several leading experts in the field. Some of these experts sat with us to talk about these updates and why the PRA is so important for maintaining a medically ready force. Dr. Keith Stuessi was a TBI provider in the Navy for 20 years. He is currently a subject matter expert at TBICoE, and has administered the PRA numerous times in clinical practice.

**Dr. Stuessi:** It was the first time that we developed the term "rest," or actually defined it. And that was a really big deal. But in the past six years, there's been research in the sports medicine community with concussions showing that early activity in a very controlled manner can actually hasten recovery. So we've taken that term rest and, and use the term now "relative rest" to show that, that this early activity can actually be a good thing. Next, we clarified the recommendations and the restrictions at each stage to be more service member-centric. So, for example, previously, we had activities that were listed that had nothing to do with the military or what a service member might do. So we really tried to focus as a team to come up with activities that are pertinent for the service member. And I think they'll go a long way in credibility with the PRA and along with the line leaders and the service members, so there'll be more buy-in. And I think that's an important thing.



**Kate:** Experts also found that some patients weren't completing the symptom self-inventory included in the old PRA. Patients were required to complete the large 22-item inventory on a daily basis.

**Dr. Stuessi:** I've treated lots and lots of patients using the PRA. And to be quite honest, we found that patients weren't using it. And it was very cumbersome. And we also found that it didn't take into account the service member's previous medical history. So what we decided to do is now we have the service members rate their symptoms as same, better, or worse compared to the previous day. And they'll be able to progress if they're either same or better. And so, in this fashion, it kind of looks at the acute concussion as it is now versus taking into account a lot of the previous issues that they may have had.

Lastly, I think that one of the big things is that we've really clarified and expanded what we call the return-to-duty screening. And so again, if you take a look at the previous CR, all we had service members do was an exertional test. So we would get them on a treadmill or an exercise bike or you know having to do some type of activity to get their heart rate up for a couple of minutes, and after that was done, we could we would say, okay, you're good to go. But we now recognize that what we call the cognitive portion of what's going on with the brain is very important. And so what we've done is we've now included a cognitive screening in the actual return-to-duty screening. So you have two elements now: an exertional test, and if you pass that, then you move on to the cognitive screening. It's just a more thorough way to evaluate the service member objectively, and it gives us a better reassurance that they're able to go back and actually do their job.

**Kate:** Dr. Stuessi says early identification and management of TBI symptoms can be critical to the success and readiness of operational units.

**Dr. Stuessi:** We know that these concussions can affect the service members as it relates to their jobs, stuff like reaction time, and balance and marksmanship. So I think it's really important for the audience to understand that, while we want them to do this activity early on and to progress through in in a stepwise fashion, it's also important that we don't want to put them back too soon because we want them to be fully functioning, both mentally and physically.

**Kate:** The PRA revision effort was led by Amanda Gano, a certified physician assistant and TBI subject matter expert. Gano, also served in the Navy as a medical provider.

**Ms. Gano:** So primary care providers in the military can be they can be physicians, they can be PAs, they could be nurse practitioners, or even you know, specialty trained corpsman in the Navy called IDCs, or even medics in the Army or Air Force. And these providers are really, really central and essential to the care of our service members. And it's very important for them to have an understanding of how to return a service member back to full duty after concussion. And, you know, these types of injuries concussion, mild TBI, they're not just happening on deployment; they're happening in garrison as well and actually more frequently in garrison as a result of common things like falls or sports injuries or even motor vehicle accidents. So it's so important for providers to really be TBI ready and have an easy-to-use reference for how to manage concussion.



**Kate:** Often, primary care physicians see patients with a wide range of medical issues. Gano recalls her level of comfort treating service members with TBI.

**Ms. Gano:** So I know when I was on active duty as a primary care provider back in 2011, concussion was something that I wasn't really comfortable treating, and I would oftentimes refer to a specialist, which can often prolong care; it can sometimes takes take weeks to get an appointment. And a lot of times those specialty referrals really aren't necessary for concussions. And if I had had an evidence-based reference, like the PRA, that I could have followed, I think that it really would have increased my confidence in my ability to manage a concussion, and it would have eliminated a lot of unnecessary specialty referrals.

**Kate:** This revision also streamlined the clinical recommendation by combining several of TBICoE's clinical tools, making it a more comprehensive resource for providers.

Ms. Gano: We've combined the PRA for primary care managers, the PRA for rehab providers, and this thing called the Concussion Management Tool that we've previously used into this one streamline product. So providers will be able to evaluate a service member for a concussion using the Military Acute Concussion Evaluation two, or the MACE 2, and then jump right into management with the PRA. So I think it makes it a lot easier. So the PRA also includes references to primary care management strategies and also references to other TBICoE clinical recommendations based on common post-concussion symptom clusters. And so most concussion symptoms will resolve with a gradual return to activity and symptom management in about two weeks. But there are times when symptoms linger and actually do require referrals to specialty care, like things like vestibular therapy or Neuro-Optometry for persistent dizziness or visual complaints, or even like behavioral health this is very common for comorbid anxiety or post-traumatic stress reactions.

**Kate:** The revised PRA also includes a Patient and Leadership Guide. This document was designed to help patients understand their recovery process. It also helps patients communicate their limitations and their expected recovery trajectory to their chain of command.

**Ms. Gano:** So, when we spoke to end-users, we found that these end-users, primary care providers, were having some difficulty educating patients and their leadership about concussion recovery, and it's just so incredibly important to include the chain of command and concussion education. Because unlike other injuries, like ankle sprains or something that has outwardly visible signs, a concussion is not an injury that is visible. So informing the command about the guidelines that are included in the PRA will really help leaders facilitate recovery for the patient, for the service member, and allow them to make duty modifications by really understanding the recovery process.

**Kate:** TBICoE assists the Defense Health Agency, or DHA, in providing optimal patient outcomes, leading to both a medically ready force and a ready medical force. Here are Dr. Stuessi and Amanda on how the center assists in this effort.

**Dr. Stuessi:** So the DHA mission really has four aims. And those are to increase readiness, better health, better care, and lower cost. And so, to that end, the TBI Center of Excellence with the products that we produce, and as part of the clinical recommendation team, and in particular with



the PRA, it really checks all those boxes. We want to increase readiness by getting the service member back into the fight in you know, like I mentioned earlier, both physically and mentally so that they're able to do their job effectively.

**Ms. Gano:** I really see the PRA as sort of the heart of the TBI Center of Excellence, clinical recommendations that in conjunction with the MACE 2 really drives home, the TBICoE's mission of promoting state-of-the-science care from point of injury to reintegration. And that's exactly what the PRA is doing. We're empowering primary care providers to manage concussion, first by evaluating and recognizing it with the MACE 2 and then treating it with the progressive return to activity all the way through to return to full duty.

**Kate:** The revision included working with a group of active-duty military providers who assess the recommendations in a clinical setting.

(Phone Call SFX)

Dr. Susmarski: Hey, good afternoon. How's it going?

Kate: Dr. Adam Susmarski participated in this assessment.

**Dr. Susmarski:** I work at the Naval Academy as a sports medicine physician, and I work in the orthopedic Sports Medicine Department as a team physician, and also as the medical director of the United States Naval Academy Concussion Center of Excellence. I think our goals for the revised PRA is to empower the primary care physician in operational units so that these service members as they're recovering from concussion can progress through the PRA is essentially like the return to play and return to learn protocols, and get back to duty in an expedient fashion. From like a readiness perspective, the more up-to-date our recommendations are, and the more appropriately we're able to empower providers to walk patients through the correct treatment algorithm, the healthier the patient's going to be and the goal should be to empower the primary care provider so that concussion is not a taboo scenario. The PRA gives you those resources to get you up to speed if this wasn't part of your training initially. This allows you to have a quick boot camp in concussion care.

**Kate:** Through the hard work of TBICoE subject matter experts and military medical providers, the revised PRA will help ensure service members return to health and duty. Medical providers can find the Progressive Return to Activity Following Acute Concussion clinical recommendation, as well as our other clinical recommendations at www.Health.mil/TBIProviders, or by clicking the link in the Episode Notes. You can also download fact sheets for your patients and their families at www.Health.mil/TBIFactSheets. Picking Your Brain is a podcast series from the Traumatic Brain Injury Center of Excellence, or TBICoE, that focuses on the care and recovery of service members and veterans who have sustained a TBI. It's produced and edited by Vinnie white and hosted by me, Kate Perelman.