



# Pain Management Task Force Downrange Pain Control

## What has Changed?

Program Director  
Defense and Veterans Center for Integrative Pain Management (DVCIPM)

UNCLASSIFIED



# Financial Relationships

I have no financial relationships with any product or company discussed in this presentation





# Pain Management Task Force



## Agenda

- Pain Management Task Force (PMTF)
- Pain Chronification
- Acute Pain Service (APS)
  - Joint Theater Practice Guideline on Pain, Anxiety, and Delirium
  - Why?
  - Data to support
- Proposed Role 3 (APS) Staffing
- PMTF Major Lines of Effort
  - Defense & Veterans Pain Rating Scale (DVPRS)
  - Patient Assessment Screening Tool and Outcomes Registry (PASTOR)
  - Interdisciplinary Pain Management Clinics
  - ECHO – Extension for Community Healthcare Outcomes
- Suggested way forward



# Pain Management Task Force



## Mission

### NDAAs 2010, Section 711:

- Directed SECDEF to develop comprehensive pain management policy by March 2011
- Annual Report: update to Congress required 180 days after initiation of policy and annually each 1 October

### MEDCOM Pain Management Task Force and Campaign Plan:

- Chartered by Army Surgeon General in August 2009 to make recommendations for improving clinical, administrative, and research processes involved with the provision of pain management care and services at MEDCOM facilities.
- Tri-Service and Veterans Administration Membership
- Task Force Report included over 100 recommendation for a holistic, multimodal, multidisciplinary pain strategy and 19 recommendations requiring establishment of a DoD-level pain management advisory/synchronization organization
- MEDCOM operationalizing TF recommendations in the Comprehensive Pain Management Campaign Plan

## » Army surgeon general presents top 10 initiatives

WASHINGTON (Army News Service, Feb. 1, 2011) -- Army Surgeon General Lt. Gen. Eric B. Schoomaker announced his Top 10 initiatives for Army medicine Jan. 27.

- Pain Management Task Force/Comprehensive Pain Management

<http://www.armymedicine.army.mil/reports/reports.html>





# Pain Management Task Force



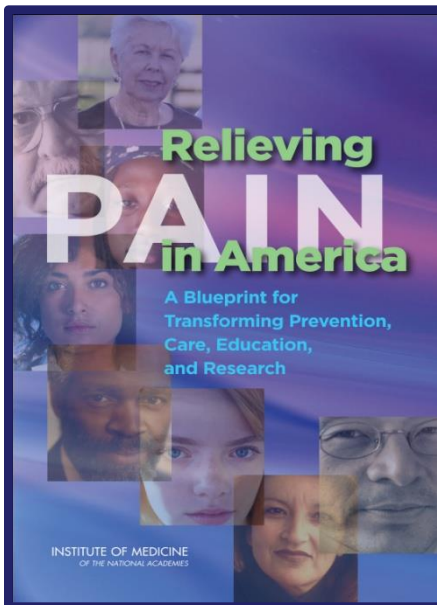
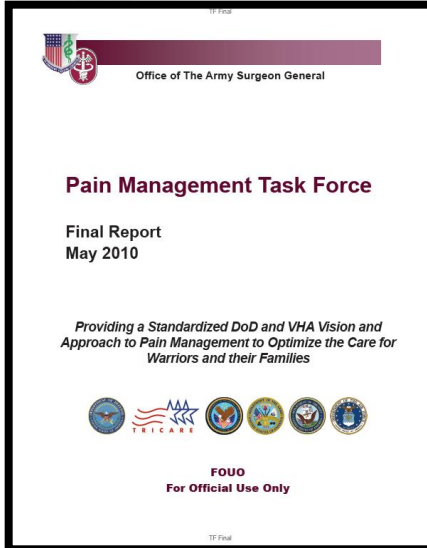
## Pain Management Task Force

- Provide recommendations for a **MEDCOM comprehensive pain management strategy** that is **holistic, multidisciplinary, and multimodal** in its approach, utilizes **state of the art/science** modalities and technologies, and provides **optimal quality of life** for **Soldiers and other patients** with acute and chronic pain.

» *Army Pain Management Task Force Charter; signed 21 Aug 2009*

- *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research*

» *June 2011*







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# John Ranby, a physician describing the care of battlefield injuries in 1776

“...to act in all respects as if you are entirely unaffected by their groans and complaints, but at the same time behave with such caution as not to proceed rashly or cruelly, and be particularly careful to **avoid unnecessary pain.**”



“What an infinite blessing.”







# 19<sup>th</sup> Century Battlefield Pain Control

In 1803, Serturmer, a German pharmacist, identified and isolated the main ingredient of opium, Morphine. He called this alkaloid "Morphia" after Morpheus, the Greek God of Dreams. The name "Morphine" is now used instead of Morphia because of the standard that all alkaloids end in "-ine".







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# Pain Management Task Force







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## 21<sup>st</sup> Century Evacuation Realities



# Chronification: The Chronic Pain Cycle

## Pathophysiology of Maintenance:

- Radiculopathy
- Neuroma traction
- Myofascial sensitization
- Brain, SC pathology (atrophy, reorganization)

## Pathology:

- Muscle atrophy, weakness;
- Bone loss;
- Immunocompromise
- Depression
- Substance abuse

## Psychopathology of maintenance:

- Encoded anxiety dysregulation
  - PTSD
- Emotional allodynia
- Mood disorder

## Acute injury and pain

## Central Sensitization

- Neuroplastic changes

## Neurogenic Inflammation:

- Glial activation
- Pro-inflammatory cytokines
- blood-nerve barrier disruption

## Peripheral Sensitization:

- New Na<sup>+</sup> channels cause lower threshold

## Disability

- Less active
- Kinesophobia
- Decreased motivation
- Increased isolation
- Role loss
- Sleep disorder





## Pain Management Task Force



# Consequences of unrelieved pain

### Organ systems

### Physiologic responses

#### Cardiovascular

Increased heart rate, peripheral vascular resistance, arterial blood pressure, and myocardial contractility resulting in increased cardiac work, **myocardial ischemia and infarction**

#### Pulmonary

Respiratory and abdominal muscle spasm (splinting), diaphragmatic dysfunction, decreased vital capacity, impaired ventilation and ability to cough, **atelectasis**, increased ventilation/perfusion mismatch, **hypoventilation**, hypoxemia, hypercarbia, **increased postoperative pulmonary infection**

#### Gastrointestinal

Increased gastrointestinal secretions and smooth muscle sphincter tone, reduced intestinal motility, ileus, **nausea, and vomiting**

#### Renal

**Oliguria**, increased urinary sphincter tone, urinary retention

#### Coagulation

Increased platelet aggregation, venostasis, **increased deep vein thrombosis**, thromboembolism

#### Immunologic

**Impaired immune function**, increased infection, **tumor spread or recurrence**

#### Muscular

Muscle weakness, limitation of movement, **muscle atrophy**, fatigue

#### Psychological

Anxiety, fear, anger, depression, **reduced patient satisfaction**

**Overall recovery delayed recovery, increased need for hospitalization, delayed return to normal daily living, increased healthcare resource utilization, increased healthcare costs**

Joshi GP, Ogunnaik BO. Consequences of inadequate postoperative pain relief and chronic persistent postoperative pain. *Anesthesiology Clin N Am* 2005 23:21-36.



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## Prevalence of Chronic Pain, PTSD and TBI in a sample of 340 OEF/OIF veterans with polytrauma

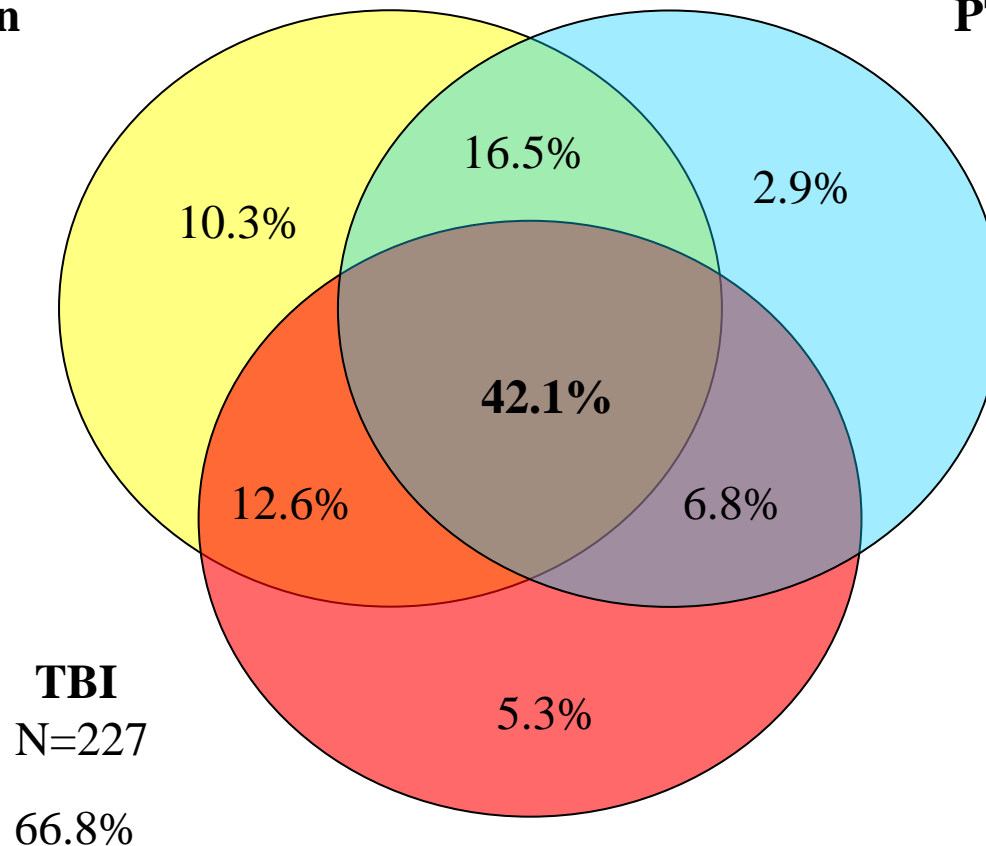
**Chronic Pain**

N=277

81.5%

**PTSD N=232**

68.2%



**TBI**  
N=227

66.8%

Lew, Otis, Tun et al., (2009). Prevalence of Chronic Pain, Post-traumatic Stress Disorder and Post-concussive Symptoms in OEF/OIF Veterans: The Polytrauma Clinical Triad. *JRRD*.

# Troops reportedly popping more painkillers

Posted 5h 8m ago | Comments  20 | Recommend  2

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By [Gregg Zoroya](#), USA TODAY

WASHINGTON — Narcotic pain-relief prescriptions for injured U.S. troops have jumped from 30,000 a month to 50,000 since the Iraq war began, raising concerns about the drugs' potential abuse and addiction, says a leading Army pain expert.

The sharp rise in outpatient prescriptions paid for by the government suggests doctors rely too heavily on narcotics, says Army Col. Chester "Trip" Buckenmaier III, of Walter Reed Army Medical Center in Washington.

By 2005, two years into the war, narcotic painkillers were the most abused drug in the military, according to a survey that year of 16,146 servicemembers.

**MORE:** [Prescription drug abuse hits Mo. Army unit hard](#)

Among Army soldiers, 4% surveyed in 2005 admitted abusing prescription narcotics in the previous 30 days, with 10% doing so in the last 12 months. Researchers said the results may have been skewed by respondents mistakenly referring to legal use of pain medication. A 2008 survey has not been released.

**FIND MORE STORIES IN:** [Washington](#) | [Virginia](#) | [Iraq](#) | [Pentagon](#) | [Missouri](#) | [Marine Corps](#) | [Walter Reed Army Medical Center](#) | [Department of Veterans Affairs](#) | [Fort Leonard Wood](#) | [Afghanistan-era](#) | [Warrior Transition Units](#)

"You don't have to throw narcotics at people to start managing pain," says Buckenmaier, who pioneered technology that eases the pain of wounded soldiers.



Other ways to share:



What's this?



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## CDC Statistics

In 2008, there were 14,800 prescription painkiller deaths.<sup>4</sup>

For every **1** death there are...



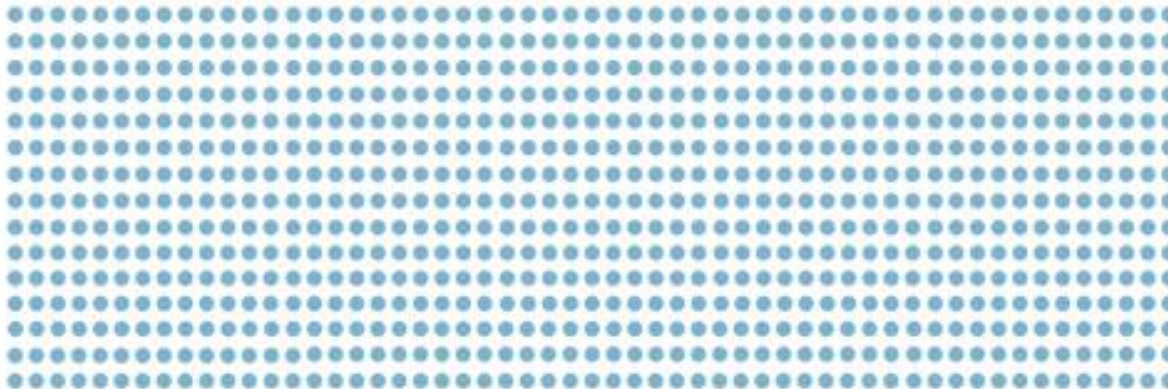
**10** treatment admissions for abuse<sup>9</sup>



**32** emergency dept visits for misuse or abuse<sup>6</sup>



**130** people who abuse or are dependent<sup>7</sup>



**825**  
nonmedical  
users<sup>7</sup>





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## Joint Theater Trauma System Clinical Practice Guideline

### Management of Pain, Anxiety and Delirium in Injured Warfighters

Original Release/Approval	23 Nov 2010	Note: This CPG requires an annual review.	
Reviewed:	Oct 2010	Approved:	22 Nov 2010
Supersedes:	This is a new CPG and must be reviewed in its entirety.		
<input type="checkbox"/> Minor Changes (or)	<input type="checkbox"/> Changes are substantial and require a thorough reading of this CPG (or)		
<input type="checkbox"/> Significant Changes			

**Goal:** To provide state-of-art pain services to combat zone casualties in the theater Roll 3 hospitals prior to the air evacuation of casualties to their country of origin.

**Guidelines:** The acute pain service will be available to all patients that are admitted to the theater hospital.



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## Afghanistan Study Data summary

Total # Patients seen: 160 of 392 surgical trauma patients  
(April – July 2009).

### Demographics:

# Males seen: 155

# Females seen: 5

Mean Age of Patients: 25.8 years old → Min: 5 years old; Max: 85 years old

# Repeat Patients: 19

# OEF/OIF's: 99 ISAF

# Non-OEF/OIF's: 61 Afghans

### VAS Score:

Average Pre-pain score: 5.266

Average Post-Pain score: 0.734

### # Times Ultrasound and/or Stimulation used:

U/S (+): 99

Stim (+): 37

### Block Info:

Total # Catheters Placed: 91

Total # Single blocks performed: 129

Total # Bolus: 10

# Patients with Multiple blocks: 53

# Procedures done with General Anesthesia (Sleep): 50

40.8%



Pain Medicine 2012; 13: 919-926  
Wiley Periodicals, Inc.

## ACUTE PAIN SECTION

### *Original Research Articles*

## Impact of an Acute Pain Service on Pain Outcomes with Combat-Injured Soldiers at Camp Bastion, Afghanistan

Chester "Trip" Buckenmaier III, MD,<sup>1†‡</sup>  
Peter F. Mahoney, OBE TD MSc FRCA L/RAMC,<sup>\*\*</sup>  
Todd Anton, MD, CPT,<sup>‡</sup> Nancy Kwon, CRNP, MSN,<sup>\*</sup>  
and Rosemary C. Polomano, PhD, RN<sup>§¶</sup>

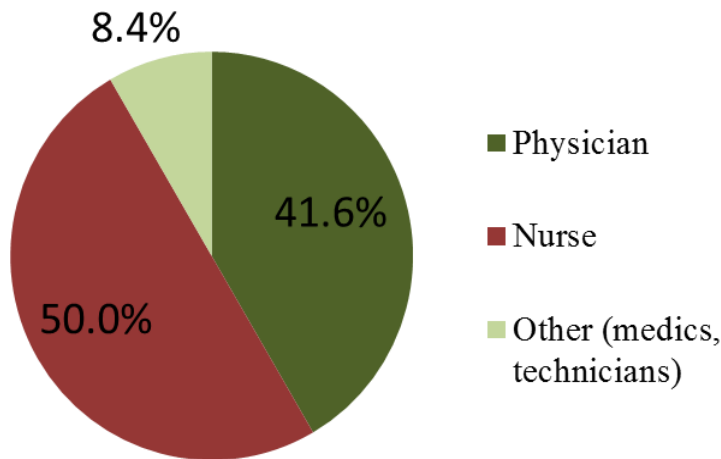




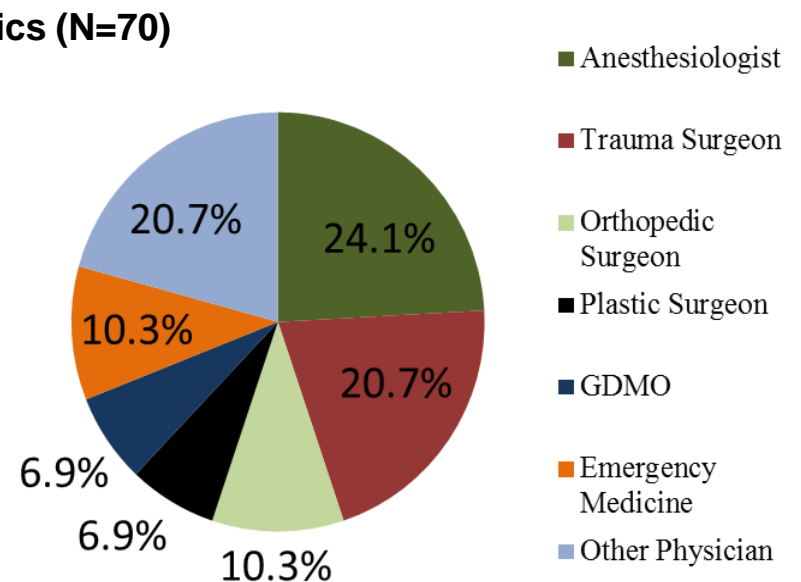
## A Survey of Military Health Professionals' Perceptions of an Acute Pain Service at Camp Bastion, Afghanistan

Rosemary C. Polomano, PhD, RN,<sup>\*†</sup> Ellie Chisholm, RN,<sup>\*\*</sup> Todd M. Anton, MD, CPT, MC, USA,<sup>§</sup> Nancy Kwon, CRNP, MSN,<sup>‡</sup> Peter F. Mahoney, OBE, TD, MSc, FRCA, L/RAMC,<sup>††</sup> and Chester "Trip" Buckenmaier III, MD, COL, MC, USA<sup>‡†</sup>

### Health Profession



### Physician Specialties

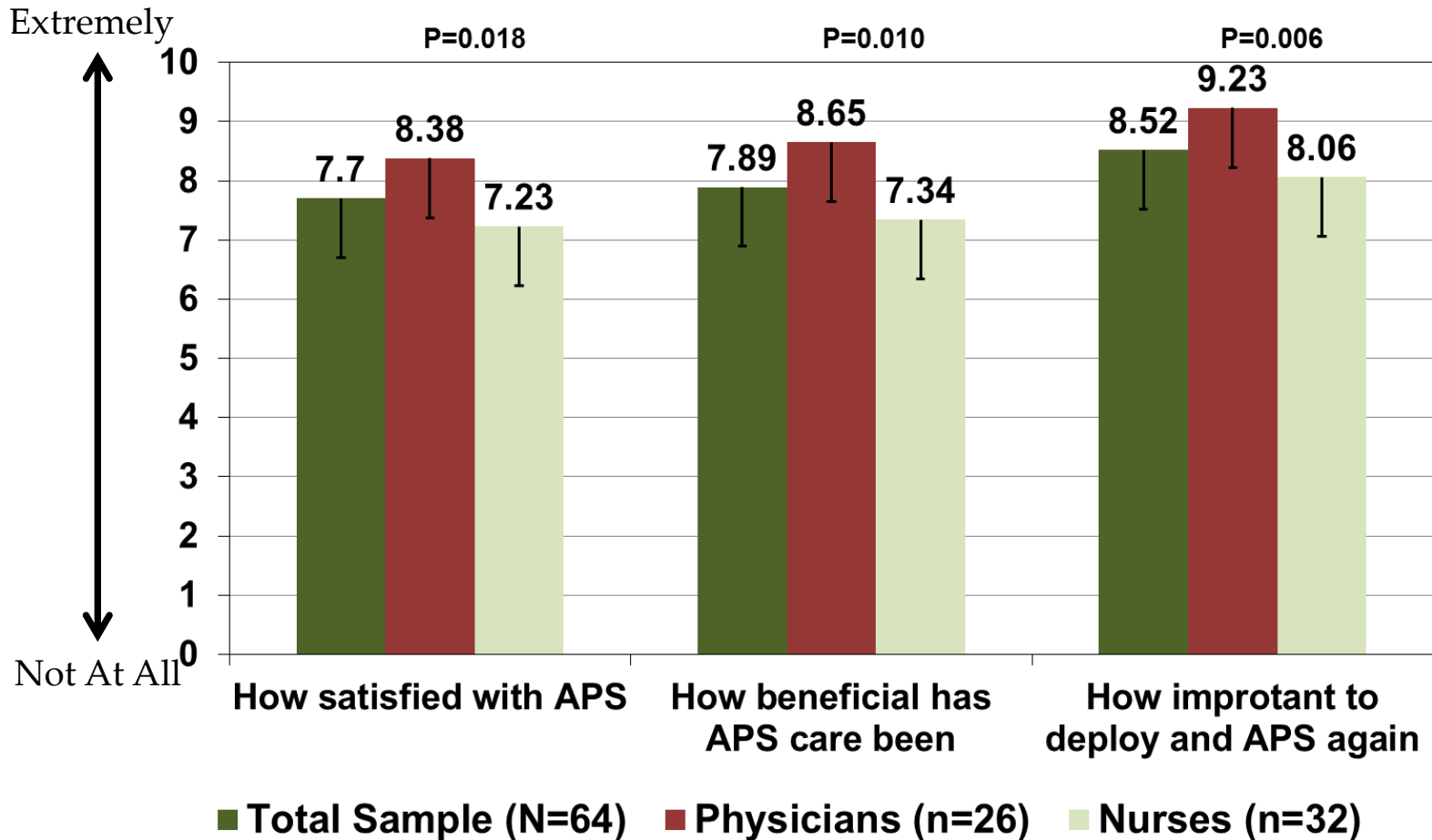




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## Perceptions of an APS

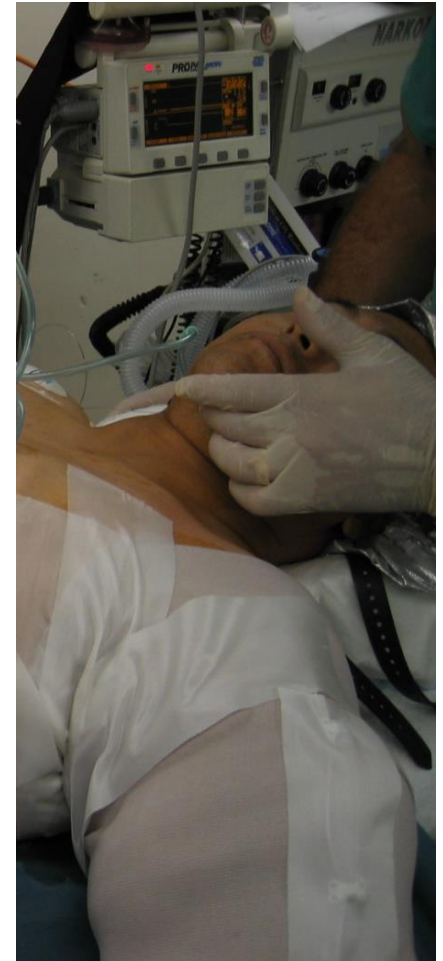
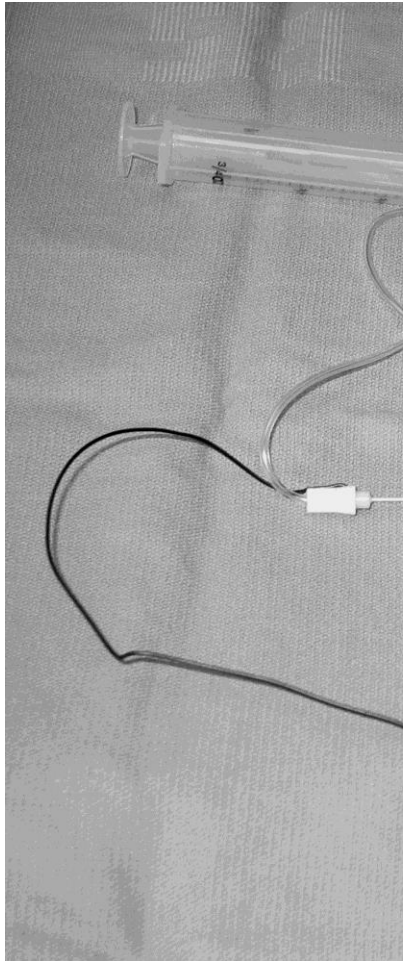






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# The New Face of Regional Anesthesia

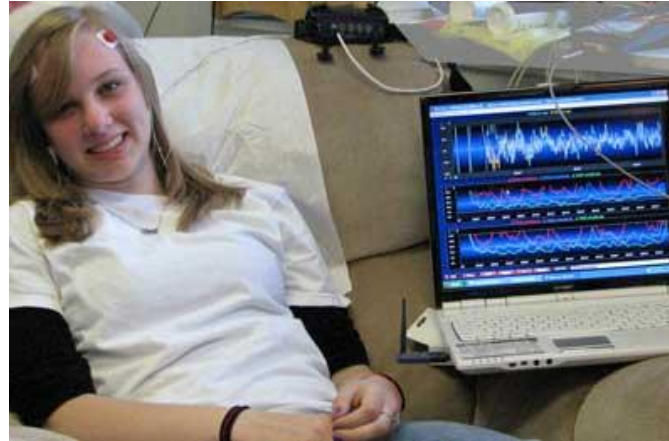
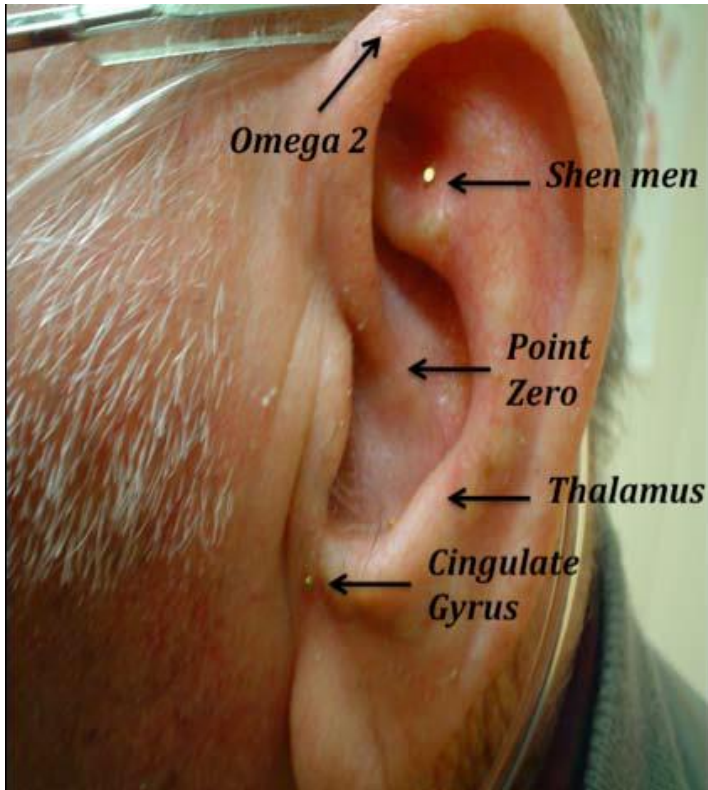




# Compartment Syndrome

- High risk patients can be identified
- Communication is the key!
- Options available
  - No block for injury of concern
  - Multimodal therapy
  - Place block 24 hours after surgery if
    - ↑ Pain
  - Place catheter – don't use until after postoperative exam
  - Electing to not treat pain is no longer an option in the 21st century.

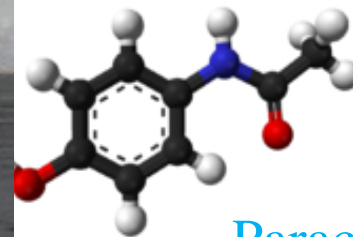
## Integrative Medicine





Novel

and equipment



Paracetamol

Ketamine Bottle  
Photo by Anonymous. © 2009 Erowid.org





## Pain Management Task Force



### Proposed APS Staffing\*

**APS Medical Officer** – Identified physician with medical expertise in acute pain medicine. This will usually be a military trained anesthesiologist.

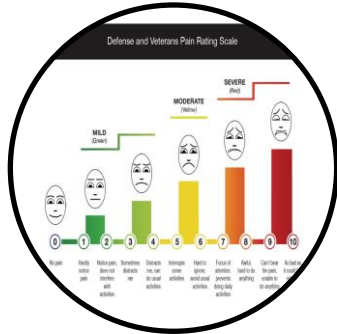
**APS Chief Nurse** – Chief nurse responsible for unit pain policy adherence and ward safety.

**Ward Pain Nurse Champions** – Nurse from each Role 3 ward to serve as the ward pain nurse.

\*These personnel can be identified and tasked from existing Role 3 force structures.



## Main Lines of Effort



### Defense & Veterans Pain Rating Scale (DVPRS)

- An innovative new scale for rating pain across the DoD



### Extension for Community Healthcare Outcomes (ECHO)

- Expanding DoD providers knowledge of pain through Video Teleconference



### Pain Assessment Screening Tool and Outcomes Registry (PASTOR)

- A screening tool and reporting system to examine a soldier's individual pain over time



### Interdisciplinary Pain Management Centers (IPMC)

- Incorporating integrative and traditional medicine to treat pain



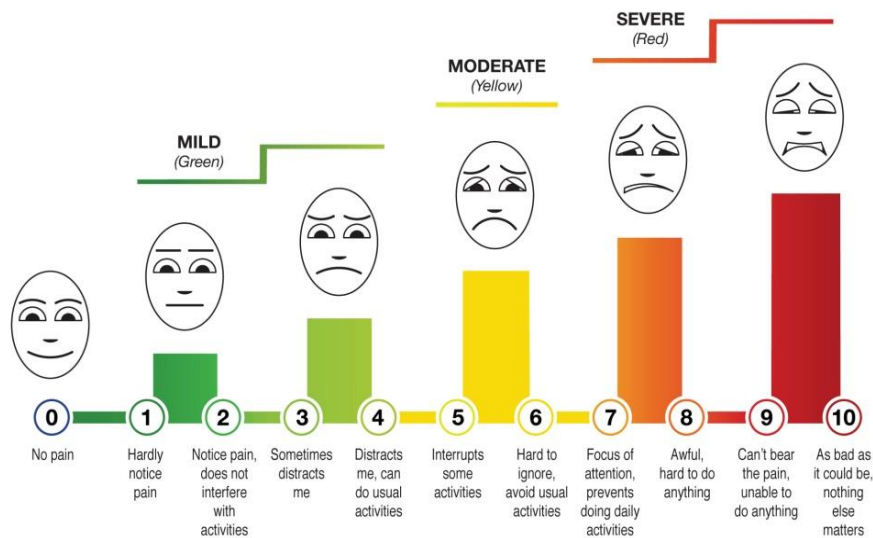
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## Defense and Veterans Pain Rating Scale (DVPRS)

- **4.1.2 Standardized Pain Assessment Tool**
- **Objective:** Describe a common language DoD and VHA pain assessment tool with visual cues and a common set of measurement questions.

### Defense and Veterans Pain Rating Scale



v 2.0

### DoD/VA PAIN SUPPLEMENTAL QUESTIONS

For clinicians to evaluate the biopsychosocial impact of pain

1. Circle the one number that describes how, during the past 24 hours, pain has interfered with your **ACTIVITY**:

0 1 2 3 4 5 6 7 8 9 10  
Does not interfere Completely interferes

2. Circle the one number that describes how, during the past 24 hours, pain has interfered with your **SLEEP**:

0 1 2 3 4 5 6 7 8 9 10  
Does not interfere Completely interferes

3. Circle the one number that describes how, during the past 24 hours, pain has affected your **MOOD**:

0 1 2 3 4 5 6 7 8 9 10  
Does not affect Completely affects

4. Circle the one number that describes how, during the past 24 hours, pain has contributed to your **STRESS**:

0 1 2 3 4 5 6 7 8 9 10  
Does not contribute Contributes a great deal

\*Reference for pain interference: Cleeland CS, Ryan KM. Pain assessment: global use of the Brief Pain Inventory. Ann Acad Med Singapore 23(2): 129-138, 1994.

v 2.0





# Pain Management Task Force



## PASTOR/PROMIS

RESEARCH \* OUTCOMES REGISTRY \* CLINICAL DECISION TOOL



- Center for Disease Control and Prevention: (Health People 2020 will include PROMIS Global Measure)



The Children's Hospital of Philadelphia®  
Hope lives here.



- Bravewell Collaborative Integrative Medicine Outcomes Study



The Bravewell Collaborative™  
Transforming Health Care and Improving the Health of the Public through Integrative Medicine

- DVCIPM Research
  - Pain Management
  - Rx Med Abuse
  - Interdisciplinary Care





# Pain Management Task Force



**PASTOR**  
PAIN ASSESSMENT SCREENING TOOL  
AND OUTCOMES REGISTRY

## RESEARCH • OUTCOMES REGISTRY • CLINICAL DECISION TOOL

- Web application served from MAMC
  - Clinical Assessment
    - Using validated computer adaptive testing (CAT) PROMIS instruments
  - Clinical Report/Decision Tool
    - Longitudinal pt pain/function/alert data in concise format
  - Patients Enter Information Prior to Appointments
    - Using the web capable device of their choice



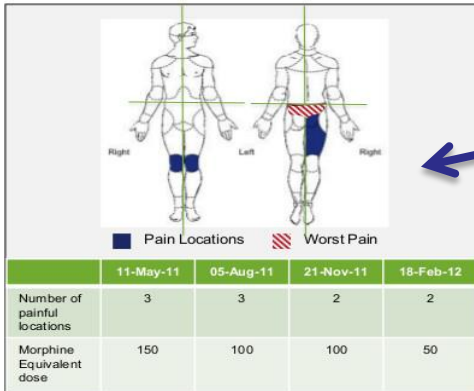
# Pain Management Task Force



## PASTOR Clinical Report

Date: 17-04 -13  
 Name: Smith, Snuffy Q.  
 Family Preference Code/SSN: 20/1111  
 DOB: 16-04-44  
 AGE: 72  
 RANK: CPT

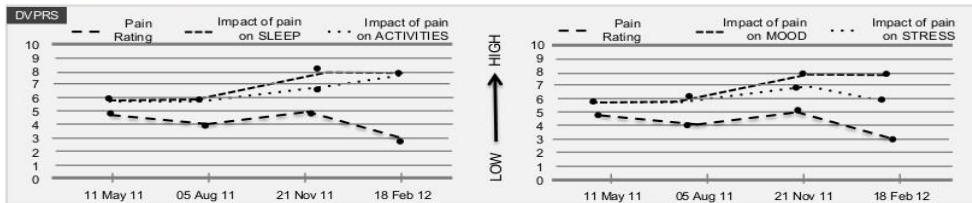
Home Phone Number: 555-555-5555  
 Primary Care Manager: Dr. XYZ  
 Gender: M  
 Home Address: 123 Sesame Street, Beverly Hills, CA 90210  
 Case Managed: Yes



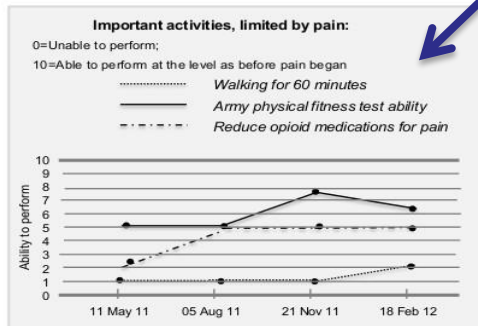
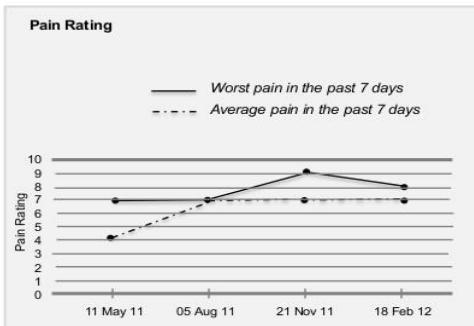
<b>! Suicide Ideation</b>	"In the past 2 weeks, how often have you been bothered by thoughts that you would be better off dead?" ANSWER: "Nearly every day."
<b>Opioid Misuse/Abuse</b>	Negative Screen; Score did not indicate problem.
<b>PTSD</b>	Negative Screen; 0 items were endorsed.
<b>! Alcohol Misuse/Abuse</b>	Today's score: 4 Previous score: 3
<b>Depression</b>	Negative Screen.
<b>Anxiety</b>	Negative Screen.

• Pain Mapped by Region

• Clinical Alerts



• Patient Defined Goals





# Pain Management Task Force



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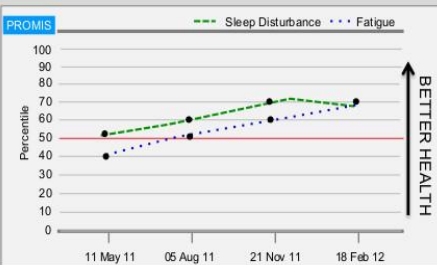
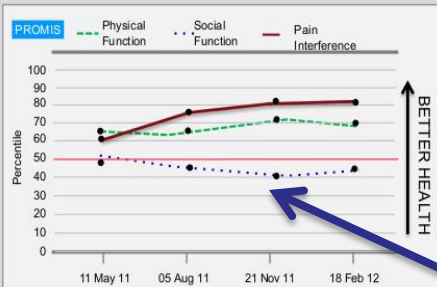
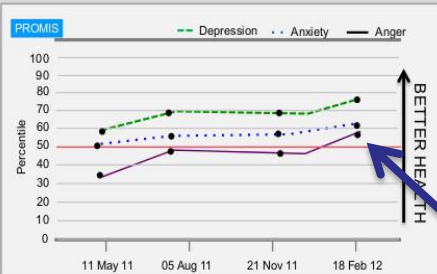
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### PROMIS Scores

Scores are reported in PERCENTILES and compared to a sample matched to the US 2000 Census on age, race/ethnicity, and sex. Higher scores indicate BETTER HEALTH.



### Treatment History

Healthcare providers seen in the past 6 months:	
General Practice	1
Medical Specialists	4
Psychologists, Psychiatrists, other mental health professionals	2
Allied health professionals	1
Complementary and alternative healthcare professionals	0

Treatment modalities and effectiveness, in the past 6 months	
Exercise, physical therapy or occupational therapy.	Yes Effective? Moderately
Physical modalities such as heat, massage, or TENS	No
Behavioral treatment (CBT, relaxation, distraction, etc.)	Yes Effective? Not at all
Non-opioid, non-steroidal anti-inflammatory medications	Yes Effective? Very
Non-opioid, non-steroidal, neuropathic pain medications	Yes Effective? Moderately
Alternative therapies such as acupuncture, hypnosis, yoga or meditation	No

Opioid Utilization Screener	
Currently taking opiates/opioids/narcotics?	Yes
How long:	≥6 months
Pain relief:	Good
"Bad days" in past month:	3-5

Depression (Percentile: 55)		Sleep (Percentile: 72)	
In the past 7 days:	Response	In the past 7 days:	Response
I felt sad.	Very Much	I tried to sleep whenever I could	Rarely
I felt that I was not needed.	A little bit	I had problems during the day because of poor sleep.	A little bit
I felt lonely.	Somewhat	I felt irritable because of poor sleep.	Often
I felt that nothing was interesting.	Somewhat	I still felt sleepy when I woke up.	Often

Pain Interference (Percentile: 63)		Physical Function (Percentile: 76)	
In the past 7 days:	Response	In the past 7 days:	Response
How much did pain interfere with your ability to concentrate?	Somewhat	Does your health now limit you in doing vigorous activities, such as running, lifting heavy objects, participating in strenuous sports?	Somewhat
How much did pain interfere with your day to day activities?	Very much	Does your health now limit you in lifting or carrying groceries?	Very much
How much did pain interfere with your enjoyment of recreational activities?	Not at all	How much do physical health problems now limit your usual physical activities (such as walking or climbing stairs)?	Quite a bit
How much did pain interfere with the things you usually do for fun?	A little bit	Are you able to move a chair from one room to another?	Very much

- Gen population percentile indicator
- Color Coding on each graph

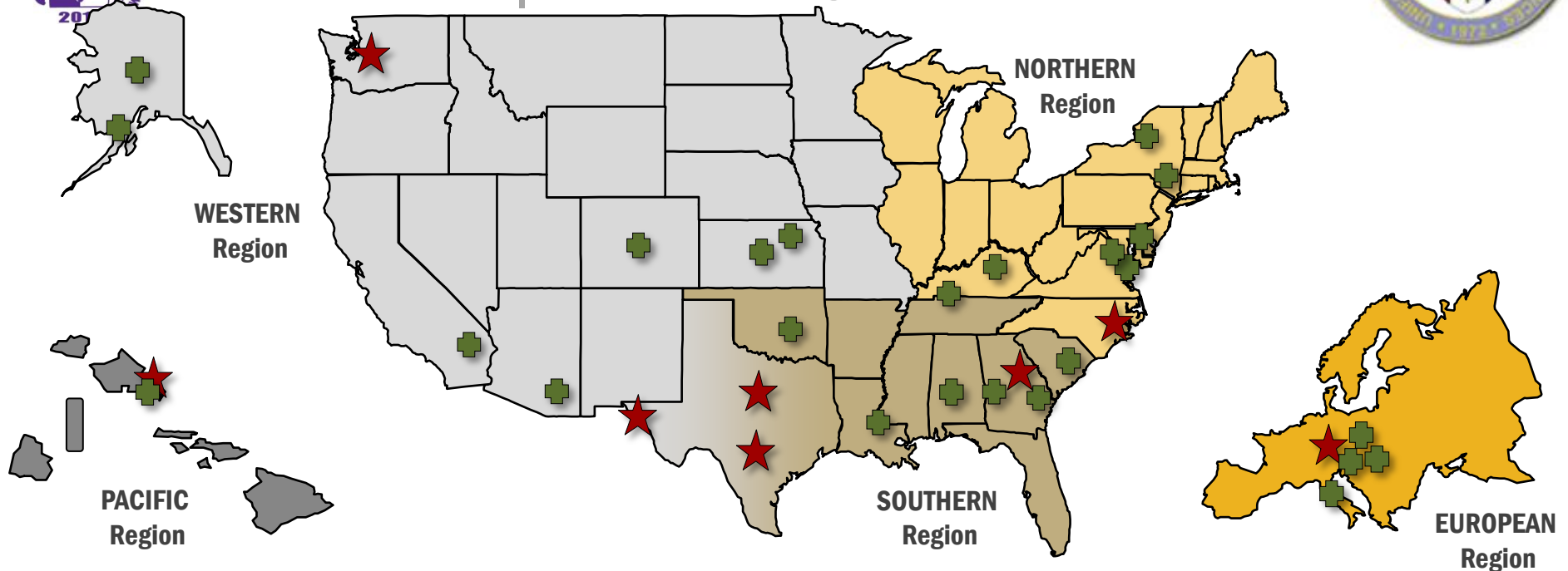




# Pain Management Task Force



## ARMY | Pain Management Network



### INTERDISCIPLINARY PAIN MANAGEMENT CENTER (IPMC):

Serves as hub for pain management synchronization for designated MTFs within RMC. Provides pain management specialty referral /consultation services , patient and provider education, and coordination of research initiatives.

**PAIN AUGMENTATION TEAM:** Serves as the MTF lead element for pain management education, training, and practice standards; linked to a designated IPMC for support.

Pain Champion; Clinical Pharmacist; Nurse Care Coordinator

★ IPMC (8)



Pain Augmentation Teams (25)

Ft Gordon

Ft Hood

Ft Bliss

Ft Lewis

Ft Sam Houston

Landstuhl

Tripler

Ft Bragg

Ft Benning

Ft Campbell

Ft Carson

Ft Drum

Ft Huachuca

Ft Irwin

Ft Jackson

Ft Knox

Ft Leonard Wood

Ft Meade

Ft Polk

Ft Riley

Ft Sill

Ft Stewart

Ft Wainwright

Schofield Barracks

Stuttgart

Vilseck

Vicenza

Ft Richardson

Ft Eustis

Ft Lee

Ft Leavenworth

West Point

Wiesbaden

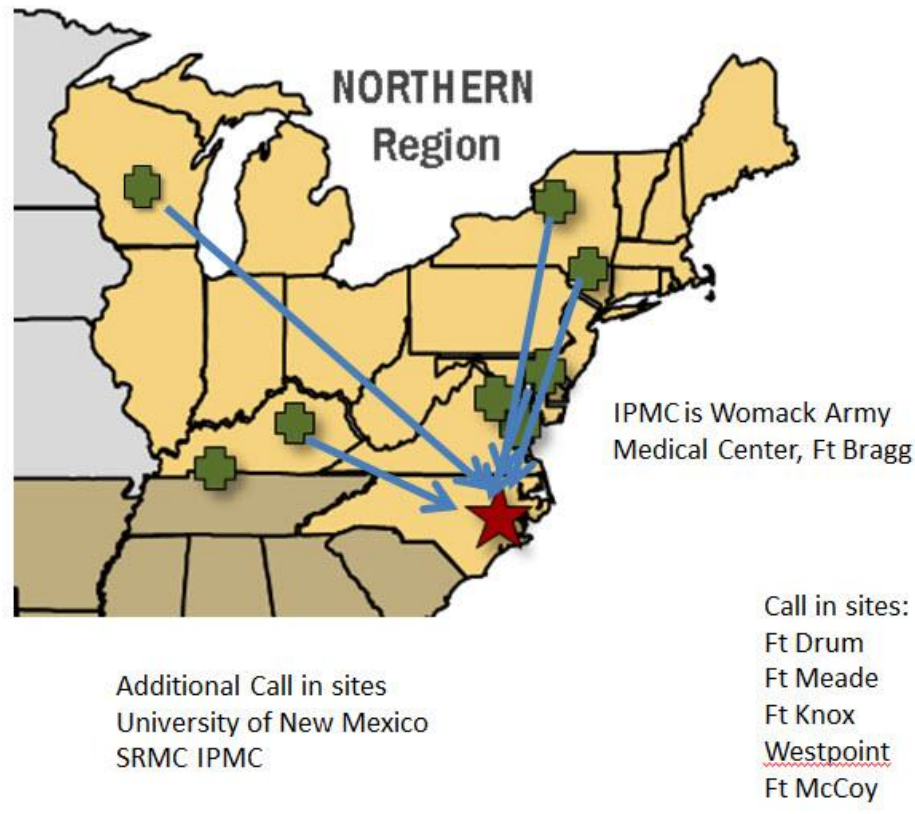


# Pain Management Task Force



## Extension for Community Healthcare Outcomes

30 April 2013





# MHS Leadership Support

## Synchronize a culture of pain awareness, education and proactive intervention

- This is no less than a **cultural change** and reorientation of attitudes about pain and its consequences within the military.
- Medical leaders at all Roles of care must recognize that pain management will be a new criteria used to measure the success and quality of healthcare within their facility.



## Pain Management Task Force



# Way Ahead

- Encourage Role 3 leaders to follow the pain CPG and integrate APS structure into their CSH.
- Utilize the MARAA handbook as a guide for APS function in the field.
- Ensure pain management equipment inventories are adequate and monitored.
- Adjust pre-deployment training of all personnel to re-orient providers on the importance of acute pain medicine and consequences of allowing pain **chronification**.
- Make the DVPRS standard for collecting pain management outcomes and include this data in the JTTR.
- Embrace PASTOR as a model for obtaining patient reported outcomes data to drive MHS resource decisions.
- Maintain and expand the IPMC concept with ECHO for improved pain care.
- Use pain medicine as a 'gateway drug' for integrative medicine to enter our system.
- Support pain research and the DVCIPM.





# Pain Management Task Force



Defense and Veterans Center for Integrative Pain Management

DVCIPM

Military Pain Management Association  
Center of Mass - Throughout the Continuum of Care

Acute Pain

Chronic Pain

Military Pain Medicine Board of Directors (MPMBD)

## Clinical Pain Medicine

- Outcomes
  - Functional / Vocational
- Information and Technology
  - JRAATS / AHLTA / Essentris
- Pain Clinical Practice Guidelines

## Pain Education

- Patients
- Providers
- Commands

## Pain Research & Technology

- CRMPP / MRMC
- ISR
- DVPMI provides the subject matter experts to help set the research agenda

Drive to Support the Balanced Scorecard





## Pain Management Task Force



# Questions?

**Pain: A disease, not a symptom**

**Not my Job**





# Pain Management Task Force



## Questions?



Defense & Veterans Center for Integrative Pain Management

DVCIPM

[www.dvcipm.org](http://www.dvcipm.org)