

Overview

- Brief review of National WRIISC program
- Update WRIISC Gulf War research
- Ways WRIISC touches lives of Gulf War Veterans

Presented by the VA War Related Inness and Injury Study Center (WRIISC)

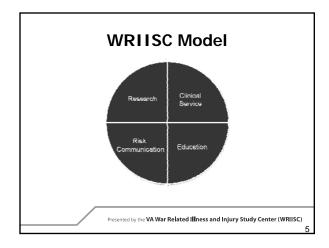
))

Background

- In 2001, the U.S. Secretary of Veterans Affairs established the WRIISCs to respond to deploymentrelated health concerns of Veterans returning from conflict
- Concept based on proven translational model
 - GRECCs
- 3 National Locations:
 - East Orange, New Jersey
 - Washington, DC
 - Palo Alto, California (opened 2008)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)





What is the WRIISC?

- Second opinion resource
 - addressing the post deployment health needs of combat Veterans from past and future conflicts
- Provides consultative clinical assessments
 - to Veterans with deployment-related health concerns and illnesses to improve their health-related quality of life
- Advances knowledge through research and education

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

.

WRIISC Clinical Collaborations

- Across WRIISCs
- Within Host Facilities
 - Primary Care
 - Mental Health
 - Neurology
 - Physical Medicine and Rehabiliation
- Regionally
 - VISN 3, 5, and 21



Palo Alto WRIISC

Presented by the VA War Related Illness and Injury Study Center (WRIISC)



WRIISC Research



- Basic Science Studies
- Physiological Studies
- Neuroimaging Studies
- Behavioral studies
- Clinical Treatment Trials
- Health Services Research

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

Overview: Persian Gulf War Studies Undertaken

- Basic Science Studies:
 - Completed Research:
 - Early Life Determinants of Vulnerability to Pyridostigmine Bromide (Weaver, Funding period: 2004-2006)
 - Interactions Between Maternal Care, Stress and Pyridostigmine Bromide (Weaver, Funding period: 2004-2007)
 - Ongoing Research:
 - Avoiding PTSD Relapse through Behavioral Conditioning (Zeitzer)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

1(

Overview: Persian Gulf War Studies Undertaken

- Physiological Studies:
 - Completed Research:
 - Cardiovascular Hyperreactivity and Fatiguing Illness in Gulf War Veterans (Peckerman et al., 2003)
 - Pain sensitivity in Gulf War Veterans with Medically Unexplained Musculoskeletal Pain (Cook et al., 2005)
 - Ongoing Research:
 - Motor Neuron function of Gulf War Veterans with Excessive Fatigue (Li)
 - Autonomic function of Gulf War Veterans with Unexplained Illness
 (I i)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

Overview: Persian Gulf War Studies Undertaken

- Neuroimaging Studies:
 - Completed Research:
 - Functional Imaging of Pain in Gulf War Veterans with Medically Unexplained Musculoskeletal Pain (Cook, 2005)
 - Ongoing Research:
 - Functional Imaging of Pain in Gulf War Veterans with Medically Unexplained Musculoskeletal Pain (Cook)
 - MRI/PET/CT* brain scanning in Gulf War Veterans detection of abnormalities and surveillance for irregular patterns (Ashford)

Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET), Computerized Tomography (CT

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

Overview: Persian Gulf War Studies Undertaken

- Clinical Treatment Trials:
 - Completed Research:
 - Telemedicine Treatment for Veterans with Gulf War Illness (Ciccone, 2008)
 - Ongoing Research:
 - Pilot Study: Mind/Body Treatment Program for Veterans with Pain, Fatigue, and PTSD (Mahoney, Charvat)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

13

Overview: Persian Gulf War Studies Undertaken

- Health Services Research:
 - Completed Research:
 - Effects of PTSD and Symptom-Based Illness on Medical Visitation in a Random Sample of Gulf War Era Veterans (Ciccone, General Hospital Psychiatry, paper under review)
 - Barriers to Treatment for Female Veterans with PTSD (Chandler, data analysis ongoing)
 - Ongoing Research:
 - Predictors of Medically Unexplained Symptoms (McAndrew)

Presented by the VA War Related Inness and Injury Study Center (WRIISC)

_,

Overview: Persian Gulf War Studies Proposed or Planned

- Physiological Studies:
 - Consortium study (includes TRI-WRIISC and academic institutions):
 Physiological Causes of Sleep Disturbance in Persian Gulf War Veterans and Implications for Treatment (Serrador proposal to be submitted for consideration to Department of Defense, Congressionally Directed Medical Research Programs, DoD CDMRP)
- Neuroimaging Studies:
 - The Effectiveness of Repetitive Transcranial Magnetic Stimulation rTMS* – for Chronic Pain in Veterans with Gulf War Illnesses (Ashford)

* Repetitive Transcranial Magnetic Stimulation

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

15

Overview: Persian Gulf War Studies Proposed or Planned

- Clinical Treatment Trials:
 - Evaluating the Implementation of a Cognitive Rehabilitation Program for Gulf War Veterans (Hodgkiss, proposal submitted to VA CSR&D*)
 - Complimentary and Alternative Medicine: Treatment Feasibility Study for Sleep Disturbances in Gulf War Veterans (Rusiewicz, proposal to be submitted to VA HSR&D**)
 - Complementary and Alternative Medicine: Mind/Body Treatment Program for Veterans with Pain, Fatigue, and PTSD (Mahoney, Charvat, proposal to be submitted to VA HSR&D**)

* VA Clinical Sciences Research and Development Service (CSR&D)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

1

WRIISC Research Statistics

- Current WRIISC studies
 - Related to Persian Gulf War Veterans:
 - Ongoing: 7 studies
 - Proposed or planned: 5 studies
 - Related to other era Veterans:
 - Ongoing: 5 studies
 - Proposed or planned: 3 studies
- Total WRIISC research publications specific to Persian Gulf War Veterans:
 - More than 45 papers

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

Research Funding

- WRIISC grants to WRIISC researchers
- VA
 - CSR&D, HSR&D
- DoD/CDMRP
 - Gulf War Panel, Traumatic Brain Injury Panel
- National Institutes of Health
 - The National Institute of Neurological Disorders and Stroke (NINDS)
 - National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS)

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

1

WRIISC Research Short Term Goals

- Utilize resources at:
 - DC WRIISC to accelerate CAM studies
 - DC and Palo Alto to do brain imaging studies
 - Palo Alto WRIISC to undertake cutting edge genetic studies
 - NJ WRIISC to undertake cardiovascular and vestibular studies

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

1

Take Home Point

- Important factors for a successful research strategy:
 - Creation and implementation of calls for proposal associated with appropriate funding levels
 - Research community willing and able to apply for and undertake studies
 - Recruitment levels that will ensure feasibility and internal validity of studies undertaken

Presented by the VA War Related Inness and Injury Study Center (WRIISC)

٠,

Other ways WRIISC touches lives of Gulf War Veterans

- Comprehensive Clinical Evaluation
- Exposure Evaluation
- Education/Outreach
- Health Management

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

21

WRIISC Clinical Services

- "Comprehensive standardized medical evaluations of medically unexplained symptoms for Veterans from any era or conflict."
 - Medical Evaluation and Labs
 - Exposure Evaluation
 - Psychological and Neuropsychological Screen
 - Social Work Evaluation
 - Educational Session
 - Debriefing by assessment team providing treatment recommendations and "roadmap" for healthcare and services

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

2:

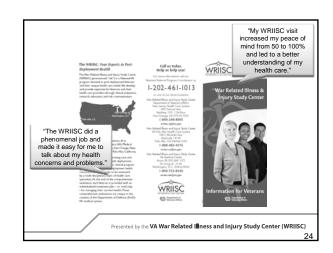
Clinical Services cont...



- Comprehensive reviews of military exposures from Veterans from any era or conflict
 - More than 420 Persian Gulf Veterans seen to date
 - More than 750 other era vets seen to date
- Group and individual Yoga and acupuncture treatments
 - More than 316 Persian Gulf Veterans served to date
 - More than 1200 other era vets served to date

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

SC)



Exposure Assessment

- Occupational and environmental medicine physicians conduct exposure evaluations
- Also done as a stand alone service to any Veteran of any era
- Can be done over the telephone for Veterans living around the U.S.

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

25

Exposure Assessment

- Risk communication principles are applied throughout the assessment
- Basic toxicology reviewed
- Exposures from before, during and after deployment are discussed
- Common exposures- i.e., neurotoxins, anthrax, depleted uranium, burning trash, sandstorms, pyridostigmine bromide



Presented by the VA War Related Illness and Injury Study Center (WRIISC)

SC)



Education & Risk Communication



Focus on communicating and providing education and training that will enhance knowledge of medically unexplained conditions and syndromes.

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

-, 28

Education & Risk Communication

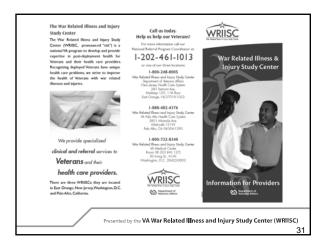
- WRIISC staff ensures that risk communication is an integral part of research and all the clinical services
- Provides summary to serve as a "roadmap" that focuses on enhancing the Veteran's understanding of their medical conditions and health concerns

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

Outreach and Networking

- Structured outreach strategy to reach Veterans via presentations and face to face meetings with:
 - VA and non-VA providers
 - VAMC Directors and VISN Directors
 - Representatives of Veteran Support Organizations (VSOs)
 - Staff of VetCenters
 - Military Community
 - Families

Presented by the VA War Related Illness and Injury Study Center (WRIISC)



Educational offerings

- Veterans:
 - Fact sheets
 - Provide reference information about topics including exposures of concern, exercise, self management
- Providers:
 - Fact sheets
 - Conferences
 - Medically Unexplained Symptoms (MUS,) Exposures

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

_,

Power of the WRIISC Concept

- A recent Persian Gulf War Veteran story...
 - Illustrating research informing clinical practice and vice versa

Presented by the VA War Related Illness and Injury Study Center (WRIISC)

33