Annual Report FY12

# EPILEPSY







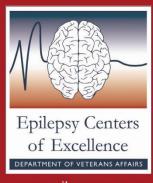
# Centers of Excellence

Improving the health and well being of Veteran patients with epilepsy and other seizure disorders through the integration of clinical care, research and education.

United States Department of Veterans Affairs, Veterans Health Administration Ryan Rieger, MHPA, Administrative Director Karen Parko, MD, Director







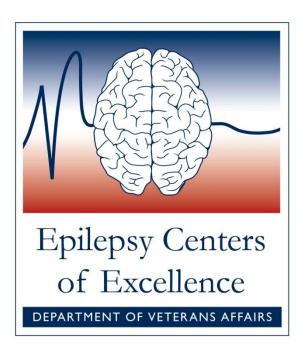
www.epilepsy.va.gov

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# EPILEPSY CENTERS OF EXCELLENCE ANNUAL REPORT FY12



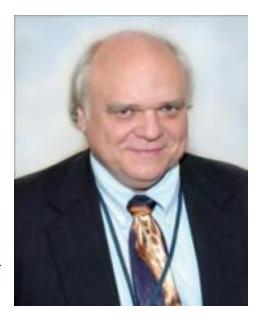
# **MISSION**

Improve the health and well being of Veteran patients with epilepsy and other seizure disorders through the integration of clinical care, research and education.

# **MESSAGE FROM THE DIRECTOR**

To my colleagues in the VA Epilepsy Centers of Excellence:

Just about 4 years ago Congress was meeting to vote on the Public Law that mandated the ECoEs. Central Office was divided about whether to comply with or defy the law. Fortunately, with the help of many of you, Pat Banks in my office had compiled a list of epilepsy care and EEG resources in VA. The report was not pretty. It was clear that the VA needed to organize and strengthen existing resources as well as develop a way to extend the existing resources into all of VHA. Marc Dichter wanted the Epilepsy Centers to serve as a model for epilepsy care for the United States. It seemed as if one solution was to have the ECoEs be a network from the onset. That network included most of the existing epilepsy expertise within VHA. After deciding on having the ECoEs constitute the hubs of what would develop into a hub-and-spoke network, the next step was to pick an able leader. There is a line in the last Harry Potter book, in which the spirit of Professor Dumbledoor tells Harry that the best leaders are those who do not quest leadership for power, but rather have power given to them and show that they



wear the power well. The Center Directors, as a group, selected Karen Parko to be the initial ECoE Director. To paraphrase the Knight's words to Indiana Jones, we chose wisely. As a Captain in the Public Health Service (equivalent to a Captain in the Navy or Colonel in the Army), Karen had leadership in her blood. She rules like Arthur at the round table of CoE site Directors. Another key step was to recruit Ryan Rieger to administer the program. Perhaps, as today is 10-11-12, things just fell into place, I prefer to think that if there is a spirit of epilepsy that she has been smiling upon our work.

The ECoEs have succeeded because of the skill and dedication of their members and leaders. I personally take little credit for the success of the ECoEs. I perhaps provided paint and a canvas, you wonderful people painted the masterpiece. I am so proud of the foresight shown by all of the ECoE leaders. I could easily write a book about the fine works done by members of the ECoEs. For the sake of time, I will mention just a few, Dr. Salinsky organized a tele-EEG service whereby the Boise ECoE reads all of the EEGs done at the Boise VAMC. Alan Towne provided EEG coverage to multiple VAMCs in West Virginia that had been paying to outsource EEGs. In addition to providing first-rate clinical care the ECoEs also have begun an extensive research program that runs the gamut for basic work done by folks such as Bill Spain (I am so glad he has been a success, which I never would have expected when he was a resident and I was on the Neurology Faculty of University of Washington), Paul Rutecki and Drs. Chen and Wasterlain at West LA; to the clinical studies of pseudo-seizure in Veterans with mild TBI and PTSD done by Marty Salinsky and others. Perhaps for the first time for VA, the ECoEs are planning to develop a long term study of the post-traumatic epilepsy. Mary Jo Pugh and others are leading that effort. The ECoEs are like a finely cut diamond, every facet shines brilliantly.

In summary, all of the members of the ECoE care network should be proud of the fine work they are doing. However, this is not a time to rest on our laurels. We can and will do more.

Sincerely,

Robert L. Ruff, MD, PhD National Director for Neurology

# INTRODUCTION

In 2008 under Public Law S. 2162, the Department of Veterans Affairs (VA) set upon its mission to revolutionize services for the Veterans afflicted by epilepsy and other seizure disorders. The VA founded the Epilepsy Centers of Excellence (ECoE), establishing 16 sites that are linked to form 4 regional centers. The ECoE seek to provide the best possible epilepsy care to Veterans throughout the United States with state-of-the-art diagnostic and therapeutic services. Our goal is to deliver the highest quality of ongoing medical care to Veterans suffering from epilepsy. We also seek to promote outreach and educational efforts for both patients and their physicians in order to further the understanding of this chronic condition. The ECoE offers a range of services in both the outpatient and inpatient realms. The ECoE provides outpatient epilepsy clinics with a staff of neurology specialists. From these clinics, patients can be directed to the most advanced testing methods for the evaluation of epilepsy, including magnetic resonance imaging (MRI), electroencephalography (EEG), and video monitoring. For those patients that require more intensive testing or attention, the ECoE also provide inpatient units for examining certain seizure types more closely or changing medications in a monitored setting. The epilepsy centers are also linked with the Polytrauma Centers to increase ability to mutually follow Veterans with moderate and severe traumatic brain injury that are at the greatest risk for post-traumatic epilepsy. The sites are developing protocols to identify Veterans with epilepsy and to develop referral networks to enable Veterans to obtain specialized treatment such as epilepsy surgery and advanced electro-diagnosis within the Veteran healthcare system

If you are a Veteran with seizures and are interested in seeking services at one of the Epilepsy Centers, please inquire with your local VA primary care physician. This doctor will be able to determine if you might benefit from the services provided by ECoE and assist you with scheduling an appointment. For more information please visit our website at <a href="https://www.epilepsy.va.gov">www.epilepsy.va.gov</a>.

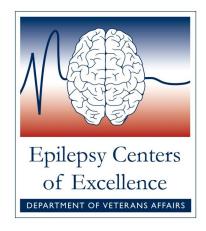
# NATIONAL ECOE PROGRAM GOALS

- Establishing a national system of care to all Veterans with Epilepsy, to function as a center of excellence in research, education, and clinical care activities in the diagnosis and treatment of epilepsy. Developing jointly a national consortium of providers with interest in treating epilepsy at Department health care facilities lacking an epilepsy center of excellence in order to ensure better access to state-of-the-art diagnosis, research, clinical care, and education for traumatic brain injury and epilepsy throughout the health care system of the Department.
- To perform epilepsy research, education, and clinical care activities in collaboration with Department medical facilities that have centers for research, education, and clinical care activities on complex multi-trauma associated with combat injuries established under section 7327 of title S2162.
- To ensure an affiliation with an accredited medical school that provides education and training in neurology, including an arrangement with such school under which medical residents receive education and training in the diagnosis and treatment of epilepsy (including neurosurgery).
- Utilizing national VA and other databases in order to inform providers and policy makers in Central
  Office about health care delivery and health policy decisions, conducting state-of-the-art research
  about Epilepsy, and implementing an informatics backbone to meet the above objectives.
- Providing health professional education and training in order to deliver the highest quality of standard
  of care to Veterans with Epilepsy. To provide an educational opportunity for nursing staff, medical
  students, house staff, fellows, referring physicians, and patients.

# **FY12 NATIONAL GOALS**

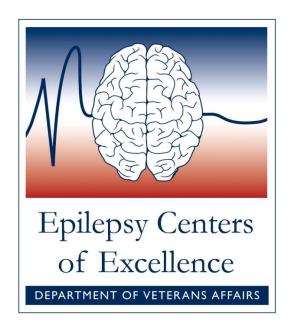
# Achieved in FY12 / Not Yet Achieved

- 1. Clinical care network Evaluation and strengthening
  - A) Evaluate the integration of the ECoE in forming a network
    - 1) National Policy (travel, formulary, telemedicine)
  - B) Strengthen the Network into Regional Hub and Spokes
    - 1) Use Video-Telehealth Outreach
    - 2) Develop Consortium with other VA epilepsy sites
    - 3) Consider Telehealth Partnership
- 2. Collaboration PTC/DVBIC
  - A) Develop tangible relationships with Polytrauma centers (level 1 and 2)
  - B) Develop relationship with DVBIC
  - C) Consider multi-site pharmacy research initiative on AEDs
  - D) Outreach to other VA non-ECoE sites (consortium also under goal 1)
- 3. Funding
  - A) Accurate workload data
  - B) Higher category for VERA reimbursement
  - C) Patient Satisfaction /Outcome survey
  - D) Cost Effective/Cost Saving Reduce Fee Care
  - E) Remain on track with Public Law



# **FY13 NATIONAL GOALS**

- 1) Complete Administrative Infrastructure
  - a) All Regional AO secured
  - b) All Site AO identified and participating
  - c) Website
- 2) Show Impact
  - a) Cost effectiveness
  - b) Patient satisfaction
  - c) Evaluate rural outreach
- 3) Consortium Development
  - a) Hub and Spoke defined within each region
  - b) Regional referral systems in place
  - c) Utilization of Telehealth, eConsult, and SCAN-ECHO
  - d) Formalize ECoE caregiver support program
- 4) Institute of Medicine
  - a) Become active partner and participate in implementation
  - b) Participate in implementation



# NATIONAL ADVISORY COMMITTEE

The National Advisory Committee is an important part of the ECoE overall team. The National Advisory Committee is responsible for providing guidance and direction to the ECoEs. It will assist in the planning phases of the ECoE to maximize cooperation between the facilities and enhance referral patterns across the VA healthcare system. The National Advisory Committee will also assist in the collaboration between VA sites and affiliate universities. It will establish performance measures with an emphasis on measurable outcomes for the ECoE and will provide oversight of all clinical, educational, and research related activities within the ECoE.

# Marc Dichter, MD, PhD, University of Pennsylvania, ECoE Advisory Committee Chair

Mike Amery, Legislative Counsel, American Academy of Neurology

Susan Axelrod, C.U.R.E.

John Booss, MD, American Academy of Neurology

David Cifu, VA Poly-Trauma Centers Director

Tony Coelho, Epilepsy Foundation

Ramon Diaz-Arrastia, MD, Uniformed Service University

LCDR Mill Etienne, MD, MPH, MC, USN, Walter Reed National Military Medical Center

Sandy Finucane, Executive Vice President, Epilepsy Foundation

Glenn Graham, MD, VA Deputy Director of Neurology

COL Jamie B Grimes, MD, MC, USA, Defense and Veterans Brain Injury Center National Director

Christine Hill, Wounded Warrior Project

Patty Horan, Military Officers Association of America

Rajiv Jain, MD, VA Specialty Care Services

David Labiner, MD, University of Arizona, National Association of Epilepsy Centers President

Richard Mattson, MD, Yale Epilepsy Program

Shane McNamee, MD, VA Poly-Trauma Centers

Donna Meltzer, Senior Director Government Relations, Epilepsy Foundation

Jack Pellock, MD, American Epilepsy Society

Ed Perlmutter, U.S. Representative for Colorado

Robert Ruff, MD. VA Director of Neurology

Rawn Sahai, Air Force Veteran

Brien Smith, Epilepsy Foundation

William Theodore, MD, Chief of the Clinical Epilepsy Section, NINDS

Kathy Tortorice, Clinical Pharmacist, VA Pharmacy Benefits Management

CAPT Will Watson, MD, PhD, MC, USN, Vice Chair of Neurology, Uniformed Services University

# **CENTERS OF EXCELLENCE**

# Northeast

States Covered: Virginia, W. Virginia, Ohio, Pennsylvania, Delaware, New Jersey, New York, Vermont, Maine, Connecticut, Rhode Island, New Hampshire, Massachusetts, Maryland, and District of Columbia

Linked Polytrauma Site: Richmond

Richmond	Hunter Holmes McGuire VAMC	(804) 675-5000 x3748				
Baltimore	VA Maryland HCS	(410) 605-7414				
West Haven	VA Connecticut HCS	(203) 932-5711 x4724				

# Northwest

States Covered: Alaska, Washington, Oregon, Idaho, Montana, Wyoming, N. Dakota, S. Dakota, Minnesota, Iowa, Illinois, Indiana, Michigan, and Wisconsin.

Linked Polytrauma Site: Minneapolis

Madison	William S. Middleton Memorial VA	(608) 256-1901 x17728
Minneapolis	Minneapolis VAMC	(612) 467-4236
Portland	Portland VAMC	(503) 220-8262 x58330
Seattle	Puget Sound	(206) 277-4292

# Southeast

States Covered: Florida, Alabama, Georgia, Mississippi, Tennessee, Kentucky, S. Carolina, Puerto Rico, Arkansas, Louisiana, N. Carolina, and Missouri

Linked Polytrauma Site: Tampa

Durham	Durham VAMC	(919) 416-5982		
Miami	Miami VAHCS	(305) 575-7000 x7008		
Gainesville	Malcom Randall VAMC	(352) 374-6082		
Татра	James A. Haley VAMC	(813) 972-7633		

# Southwest

States Covered: California, Utah, Colorado, Kansas, Nebraska, Nevada, Hawaii, Arizona, New Mexico, Texas, Oklahoma, and Philippines

Linked Polytrauma Site: Palo Alto

Albuquerque	New Mexico VAHCS	(505) 265-1711 x2752
Houston	Michael E. DeBakey VAMC	(713) 794-8835
San Francisco	San Francisco VAMC	(415) 379-5599
West Los Angeles	Greater Los Angeles HCS	(310) 268-3595
San Antonio	Audie L. Murphy VA Hospital	(210) 617-5161

# **DEFINITION OF CENTERS**

ECoE sites and Regional Centers will be designated by the ECoE National Program as ECoE program sites or centers.

# Each ECoE - referred to as an ECoE site

- Offers weekly specialty Clinics in Epilepsy (not seen within a general neurology clinic)
- Providers for these clinics are trained specifically in epilepsy care
- Meet criteria for a level IV NAEC designation OR are linked within their region and have a close working relationship with a level IV VA center
- Provide V-tel epilepsy consultation
- Provide epilepsy monitoring
- Have a single director (at least in name) that is an epileptologist
- Has a designated administrative support person(need not be full-time) that works within the ECoE and participates on a national level
- Participate in national ECoE initiatives and workgroups

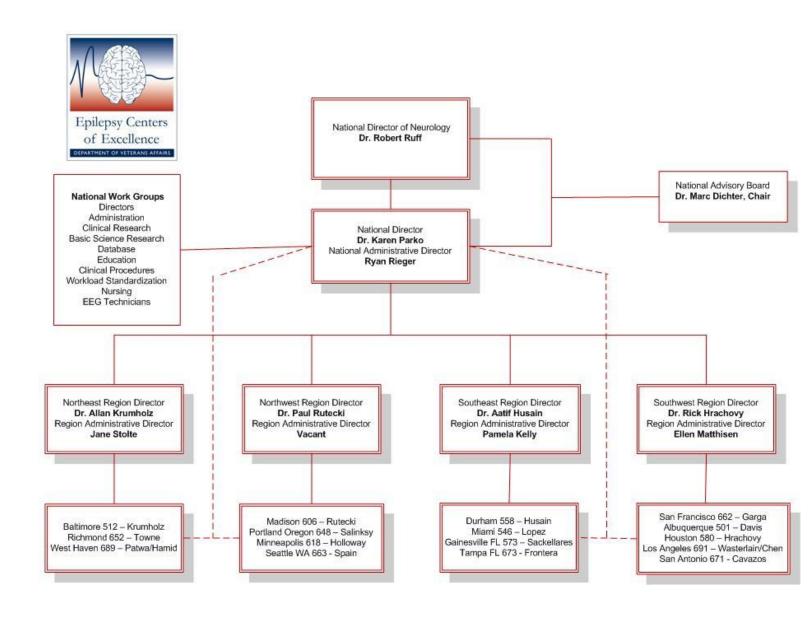
# **Each Region** - referred to as an **ECoE Regional Center**

- An established network covering all Veterans in their region with a specified pathway for referral
  of Veterans with epilepsy to a surgical center if needed
- Be able to see Veterans in a timely manner with EMU recording within 3 months of request
- Have at least one surgical center that is comparable to a NAEC level 4 center to include:
  - 1. Interdisciplinary and comprehensive diagnostic team approach
  - 2. Team to include epileptologists, neurosurgeon, neuropsychologists, nurse specialists, EEG technologists
  - 3. Offer complete evaluation for epilepsy surgery including Wada testing
  - 4. Offer neuropsychological and psychosocial treatment
  - 5. Offer specialized brain imaging
  - 6. Have fixed EMU beds that can provide VET to include: Intracranial electrode, functional cortical mapping, electrocorticography,
  - 7. Provide a broad range of surgical procedures for epilepsy
- Be involved in clinical trials
- Have a dedicated full time epilepsy AO who serves as part of the national team
- Has opportunities for specialized education in clinical epilepsy care

# **Consortium Site**

- Applies to the National ECoE for site designation and is recognized locally and nationally as a ECoE consortium site
- Has a provider specifically trained in treating and managing epilepsy
- Is linked to the ECoE network and has established administrative pathway to refer patients to ECoE
- Provides ECoE epilepsy resources to Veterans
- Available to participate in collaborate research projects
- Participates in ECoE educational programs for clinical epilepsy care
- Can participate in national ECoE initiatives and workgroups

# **ORGANIZATIONAL CHART**



# **REGIONAL MAP**

# EPILEPSY CENTERS OF EXCELLENCE REGIONAL MAP

# NORTHWEST

# I MADISON

William S. Middleton Memorial VA 2500 Overlook Tr. Madison, WI 53705 (608) 256-1901 Ext. 17728

# 2 MINNEAPOLIS

Minneapolis VA HCS One Veterans Dr. Minneapolis, MN 55417 (612) 467-4236

# 3 PORTLAND

Portland VAMC 3710 SW U.S. Veterans Hospital Rd. Portland, OR 97239 (503) 220-8262 Ext. 58330

# 4 SEATTLE

Puget Sound HCS 1660 S. Columbian Way Seattle, WA 98108 (206) 277-4292

# NORTHEAST

# 5 BALTIMORE VA Maryland HCS 10 North Greene S

10 North Greene St. Baltimore, MD 21201 (410) 605-7414

### 6 RICHMOND

Hunter Holmes McGuire VAMC 1201 Broad Rock Blvd. Richmond, VA 23249 (804) 675-5000 Ext. 3748

# 7 WEST HAVEN

VA Connecticut HCS 950 Campbell Ave. West Haven, CT 06516 (203) 932-5711 Ext. 4724

# SOUTHWEST

# B ALBUQUERQUE

New Mexico VA HCS 1501 San Pedro Dr. SE Albuquerque, NM 87108 (505) 265-1711 Ext. 2752

### 9 HOUSTON

Michael E. DeBakey VAMC 2002 Holcombe Blvd. Houston, TX 77030 (713) 794-8835

# **10 SAN ANTONIO**

Audie L. Murphy VA Hospital 7400 Merton Minter San Antonio, TX 78229 (210) 617-5161

# II SAN FRANCISCO

San Francisco VAMC 4150 Clement St. San Francisco, CA 94121 (415) 379-5599

# 12 WEST LOS ANGELES

VA Greater Los Angeles HCS 11301 Wilshire Blvd. Los Angeles, CA 90073 (310) 268-3595

# SOUTHEAST

# 13 DURHAM

Durham VAMC 508 Fulton St. Durham, NC 27705 (919) 416-5982

### **14 GAINESVILLE**

Malcom Randall VAMC 1601 SW Archer Rd. Gainesville, FL 32608 (352) 374-6082

# I5 MIAMI

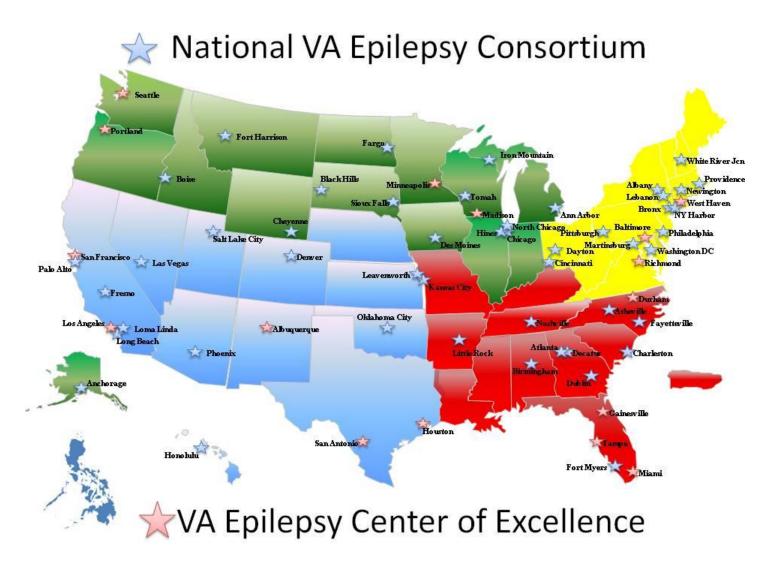
Miami VA HCS 1201 NW 16th St. Miami, FL 33125 (305) 575-7000 Ext. 7008

# 16 TAMPA

James A. Haley VAMC 13000 Bruce B. Downs Blvd. Tampa, FL 33612 (813) 972-7633

# NATIONAL VA EPILEPSY CONSORTIUM

The National VA Epilepsy Consortium is a network of VA physicians, nurses, therapists, pharmacists, and other allied healthcare providers with interest and expertise in improving the health and well-being of Veteran patients with epilepsy and related seizure disorders through the integration of clinical care, education, and research across the VA healthcare system. All clinicians who serve Veterans with epilepsy and related seizure disorders (regardless of capacity) are invited and encouraged to register as a National VA Epilepsy Consortium Member. Membership is free and grants access to a variety of epilepsy educational resources and updates from the ECoE.



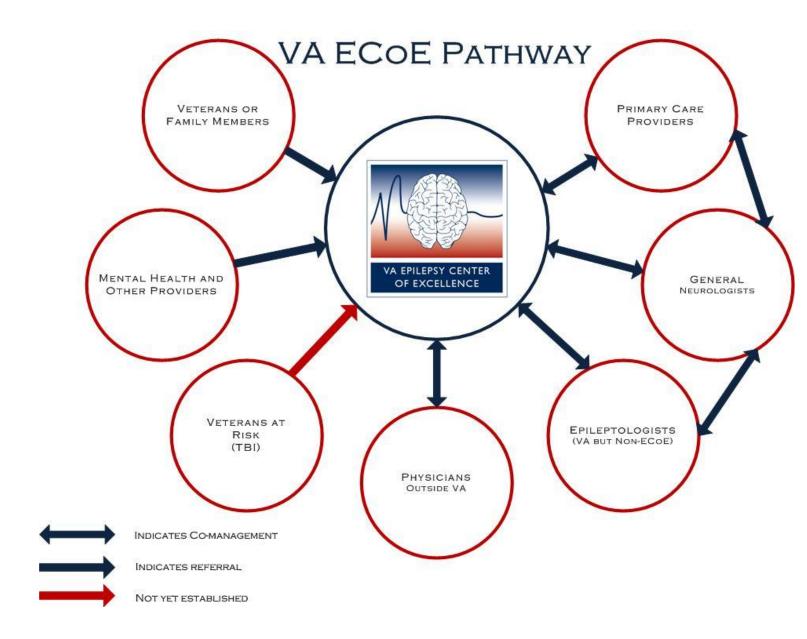
# **Accomplishments:**

- · Recruitment of a Consortium site in almost all 50 states.
- Provided Consortium Members with ECoE information packet in the mail and emails regarding ECoE educational offerings

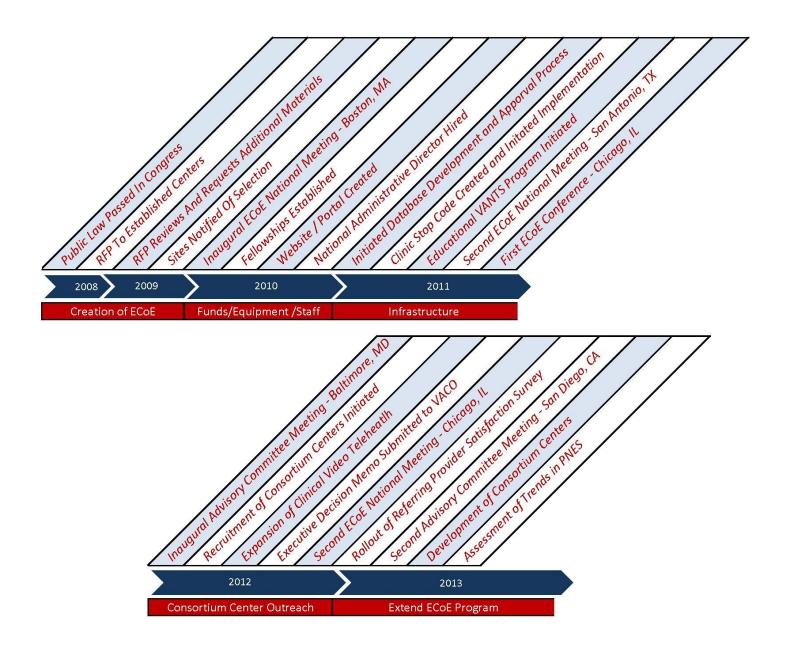
# **Future Initiatives:**

- Neurology CME Symposium in March in San Diego, CA in conjunction with AAN.
- Mini-Residency program development.
- Creation of Consortium/Outreach Workgroup.
- Development of outreach programs in Video Telehealth, SCAN-ECHO, and store & forward EEG reading.
- Provide eConsult access to all Consortium members.
- Pilot 24 hour emergency telephone hotline for providers.

# **PATHWAYS**



# **TIMELINE**



# **CLINIC WORKLOAD**

# Data Source: VSSC Outpatient Cube\*\*

Data collected using stop code 345 (in the primary or credit stop code position)

	Outpa	tient Clinic	Outpatient EEG Telephor			none Clinic	Video Te	lehealth Clinic
Site	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters
(V01) (689) VA Connecticut HCS, CT	212	450	189	193	36	52	0	0
(V05) (512) Baltimore HCS, MD	303	499	96	97	68	150	2	2
(V06) (558) Durham, NC	488	853	256	279	145	264	8	10
(V06) (652) Richmond, VA	353	595	204*	237*	3	3	0	0
(V08) (546) Miami, FL	231	429	224	237	53	60	17	24
(V08) (573) Gainesville, FL	257	457	413	443	2	2	66	99
(V08) (673) Tampa, FL	84*	158*	316	317	0*	0*	0	0
(V12) (607) Madison, WI	239	409	148	152	31	43		7
(V16) (580) Houston, TX	683	1204	392	401	22	22 22		16
(V17) (671) San Antonio, TX	468	604	254	254 266 319 52		528	0	0
(V18) (501) Albuquerque, NM	297	507	240	248	5	5	44	70
(V20) (648) Portland, OR	528	913	269	283	45	56	0	0
(V20) (663) VA Puget Sound, WA	392	497	355	364	36	43	0	0
(V21) (662) San Francisco, CA	198	456	94	99	0	0	20	41
(V22) (691) West Los Angeles, CA	500	806	420	449	0	0	0	0
(V23) (618) Minneapolis, MN	299	359	248	255	34	50	0	0
Total	5532	9196	4118	4320	799	1278	180	269

<sup>\*</sup>Data is under reported in national databases. \*\*Data are not comparable with FY 2011 ECoE Annual Report due to different data sources.

# Data Source: Self-Report Data collected locally at each ECoE site

	1	EMU Inpatient		Surg	gery
Site	# of Admissions	# of Days (Length of Stay)	Confirmed PNES Diagnosis	# of Epilepsy Surgeries	# of VNS implanted
(V01) (689) VA Connecticut HCS, CT	61	209	7	0	0
(V05) (512) Baltimore HCS, MD	25	116	1	1	1
(V06) (558) Durham, NC	21	81	12	0	1
(V06) (652) Richmond, VA	10	36	7	1	3
(V08) (546) Miami, FL	62	231	6	0	1
(V08) (573) Gainesville, FL	32	160	16	0	0
(V08) (673) Tampa, FL	37	78	12	0	0
(V12) (607) Madison, WI	38	234	11	1	1
(V16) (580) Houston, TX	137	766	48	3	3
(V17) (671) San Antonio, TX	0	0	0	0	0
(V18) (501) Albuquerque, NM	0	0	0	0	0
(V20) (648) Portland, OR	76	265	14	0	0
(V20) (663) VA Puget Sound, WA	34	137	13	0	0
(V21) (662) San Francisco, CA	46	200	6	3	0
(V22) (691) West Los Angeles, CA	35	137	19	3	1
(V23) (618) Minneapolis, MN	38	136	20	0	0
Total	652	2786	192	12	11

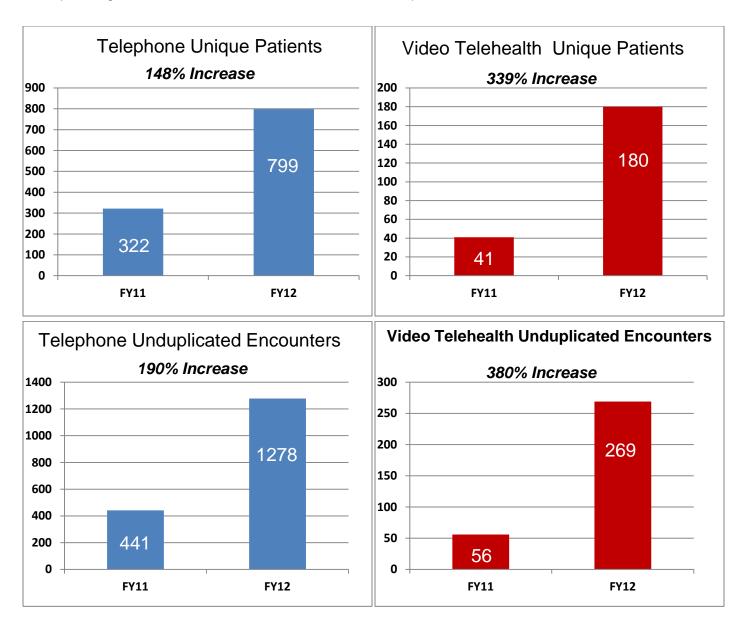
Unduplicated Encounters: a count of clinic stops made by patients where duplicates have been removed. A duplicate clinic stop occurs when a patient makes more than one of the same type of PRIMARY clinic stop at the same station on the same day. An encounter is a professional contact between a patient and a practitioner vested with primary responsibility for diagnosing, evaluating, and/or treating the patient's condition.

# TELEHEALTH CLINIC WORKLOAD

# **Data Source: VSSC Outpatient Cube**

Data collected using stop code 345 (in the credit stop code position)

Public Law S. 2162 requires the ECoE have "the capability to assist in the expansion of the Department telehealth program to develop, transmit, monitor, and review neurological diagnostic tests." In FY12, the ECoE has substantially increased clinical services being delivered to Veterans in underserved and rural locations through a telehealth outreach. New video telehealth epilepsy clinics were established at multiple ECoE sites including Madison, Houston, Miami, Baltimore, and Durham, in addition to Gainesville, San Francisco, and Albuquerque who were providing these services in FY11, providing outreach to over 15 rural Medical Centers and outpatient clinics.



Unduplicated Encounters: A count of clinic stops made by patients where duplicates have been removed. A duplicate clinic stop occurs when a patient makes more than one of the same type of PRIMARY clinic stop at the same station on the same day. An encounter is a professional contact between a patient and a practitioner vested with primary responsibility for diagnosing, evaluating, and/or treating the patient's condition.

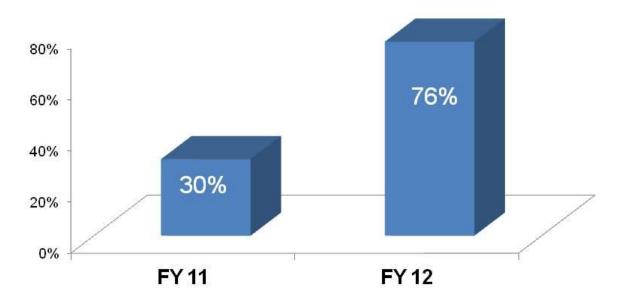
# STOP CODE IMPLEMENTATION IN THE EMU

# Data Source: VSSC Inpatient Cube and ECoE Site Self-Report

A Standard Operating Procedure (SOP) for Epilepsy Monitoring Unit (EMU) workload tracking was developed by the ECoE Clinical Procedures Workgroup and ECoE Workload Standardization Workgroup (project lead by Dr. Stephen Holloway, Jane Stolte, Rizwana Rehman, and Pamela Kelly). The SOP was rolled out and implemented at the ECoE sites in FY12. The SOP required the establishment of a EMU Clinic with 128 as primary stop code, and 345 secondary stop, a scheduled appointment for EMU inpatients, and 24 hr encounters using the appropriate cpt code for each 24 hrs.

The intent of the SOP is to have EMU workload accurately captured and accessible via data pulled from national VA database. ECoE aims to have all ECoE sites accurately capturing workload by the start of FY13, October 1, 2012. When comparing VSSC inpatient cube to site self report data, the workload capture in the EMU unique patient count improved from 30% in FY11, to 76% in FY12. By the last month of FY12, September 2012, 90% of EMU unique patient count workload was captured in the VSCC Inpatient Cube.

# **EMU Workload Capture Improvement**



Capturing approximately 90% of overall EMU workload in national databases in September 2012 (end of FY12)

Data sources: Comparing unique patient count in VSSC inpatient cube and sites self reported data

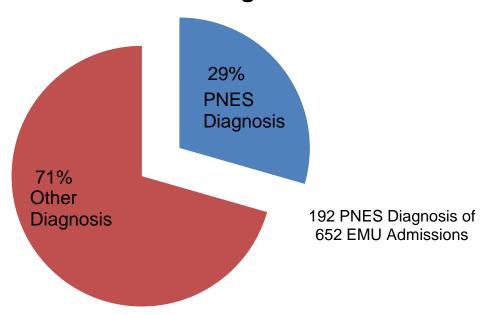
# PNES DIAGNOSIS / PROJECTED COST SAVINGS

Data Source: Self-Report

Data collected locally at each ECoE site

Psychogenic non-epilepsy seizures (PNES) are common in Veterans treated at the ECoE, and appear to be correlated with traumatic brain injury and post-traumatic stress disorder. In FY12, PNES accounted for 29% of all epilepsy monitoring unit discharges within the ECoE epilepsy monitoring unit (192 patients with confirmed PNES diagnosis of the 652 admissions). Veterans receiving care within the VHA have been shown by Dr. Martin Salinsky at the Portland ECoE to have a considerably longer delay over civilians in obtaining a correct diagnosis.

# **Confirmed PNES Diagnosis in ECoE EMU**



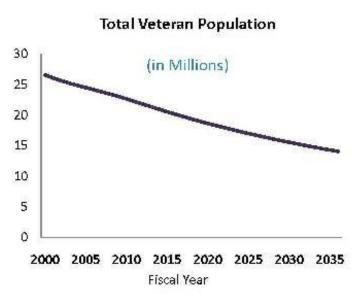
Early diagnosis of PNES can result in substantial healthcare cost saving over the life of the patient. Undiagnosed PNES may approximate the lifetime healthcare costs associated with the treatment of intractable epilepsy, about \$100,000 per patient. The 192 confirmed psychogenic non-epileptic seizures patient diagnosed in FY12, with a cost savings of \$13,750 per patient per year in healthcare costs, may equate to 2.6 million dollars cost savings per year to the VA healthcare system.

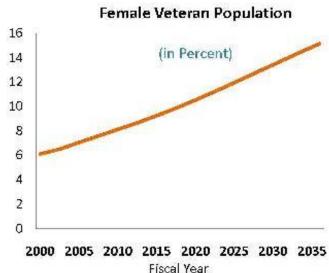
# References

- 1. Salinksy, M., Spencer, D., Boudreau, E., Ferguson, F. "Psychogenic Nonepileptic seizures in US Veterans." *Neurology*, November 13, 2012, 79 (20).
- 2. Martin, R., Gilliam, F., Kilgore, M., Faught, E., Kuzniecky, R. "Improved health care resource utilization following video-EEG-confirmed diagnosis of nonepilptic psychogenic seizures." *Seizure*. 1998; 7: 385-390.
- 3. Bageley, C., Annegers, J., Lairson, D., Reynolds, T., Hauser, W. "Cost of epilepsy in the United States: a model based on incidence and prognosis." *Epilepsia*. 1994, 35. 1230-1243.

# **VETERAN POPULATION DATA**

# Veteran Population Projections: FY2000 to FY2036



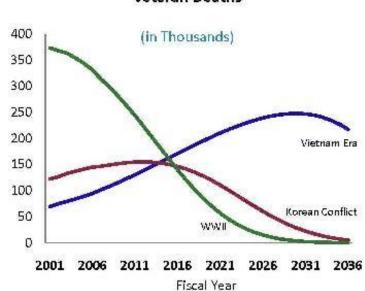


# Minority Veteran Population 18 (in Percent) 16 14 Black 12 10 8 Hispanic 6 4 All other races 2 0 2000 2005 2010 2015 2020 2025 2030 2035 Fiscal Year

# Note: Categories are mutually exclusive. 'Black 'and 'All other races' are not Hispanic.

'All other races' includes American Indian/Alaska Native, Asian, Pacific Islander, and Other.

# Veteran Deaths



Note: Veterans who served in multiple periods are shown in the most recent period in which they served.

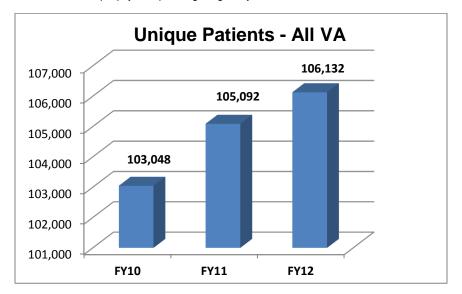
Source: Department of Veterans Affairs, Office of the Actuary, Veteran Population Projections Model (VetPop), 2007 tables 5L and 8D.

# VETERAN EPILEPSY, SEIZURE, OTHER EVENTS POPULATION DATA

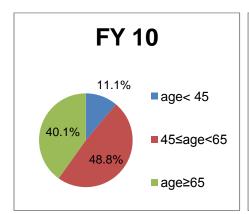
# Data Source: VSSC Diagnosis Cube\*

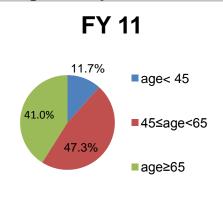
Data collected using ICD-09-CM codes:

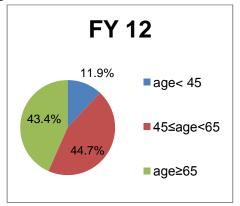
345.xx Epilepsy, 780.3x Convulsion, 649.4x Epilepsy Complicating Pregnancy, 780.02 Transient Alteration of Awareness, 780.09 Semicoma stupor



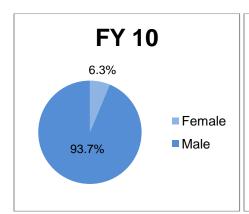
# **Age Group Distributions**

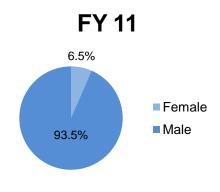


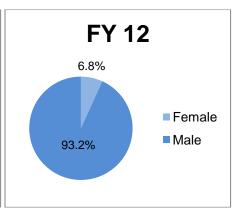




# **Gender Distributions**







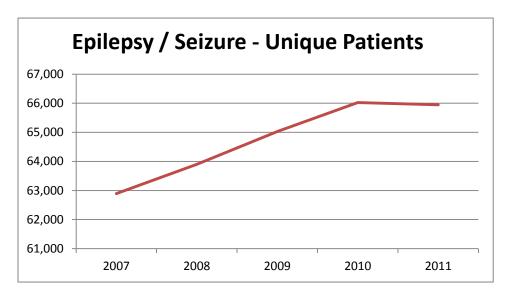
Numbers rounded to the nearest one decimal digit for percentages. Uniques with unknown ages/genders are not included in the analysis. \*Data are not comparable with FY 2011 ECoE Annual Report due to different data sources.

# VETERAN EPILEPSY AND SEIZURE POPULATION DATA

# **Data Source: VHA Corporate Data Warehouse (CDW)**

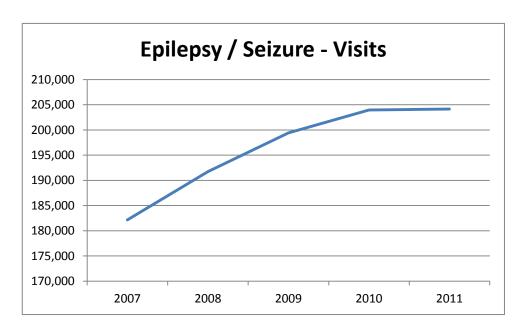
Epilepsy / Seizure Unique – The number of patients per fiscal year seen at least once with an epilepsy or seizure diagnosis (345.xx Epilepsy and 780.3x Convulsion) and having an outpatient prescription fill (drug class code = CN400 Anticonvulsants excluding clonazepam, diazepam, paraldehyde, paramethadione, phenacemide, phensuximide) within a year of the encounter.

Fiscal Year	2007	2008	2009	2010	2011
Seizures - Unique	62,896	63,901	65,030	66,026	65,946
All Unique	5,076,564	5,150,641	5,305,019	5,495,477	5,649,532



Epilepsy / Seizure Visits – The number of clinic visits per fiscal year for patients with an epilepsy or seizure diagnosis (345.xx Epilepsy and 780.3x Convulsion) and having an outpatient prescription fill (drug class code = CN400 Anticonvulsants excluding clonazepam, diazepam, paraldehyde, paramethadione, phenacemide, phensuximide) within a year of the encounter.

Fiscal Year	2007	2008	2009	2010	2011
Seizures - Visits	182,139	191,729	199,423	203,973	204,135
All Visits	66,416,750	71,236,629	77,631,674	83,564,066	87,954,600



# **INVENTORY OF SERVICES**

ECoE Inventory of Services - FY12		d													СТ	
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	Minneapolis, MN	ngel	San Francisco, CA	unos	Portland, OR	Albuquerque, NM	San Antonio, TX	Houston, TX	Madison, WI	Tampa, FL	Sainesville, FL	Miami, FL	Durham, NC	Baltimore HCS, MD	icut F	Richmond ,VA
	neap	os A	Fran	ıget (	ortla	enbn	Ant	onst	ladis	Татр	ines	Mian	urha	more	necti	chmc
	Mir	West Los Angeles, CA	San	VA Puget Sound, WA		Alb	Saı	-	2		ဗိ			Balti	VA Connecticut HCS,	Ξ
		>													^	
Outpatient EEG	х	х	х	Х	Х	Х	х	х	х	Х	х	Х	Х	Х	Х	Х
Specialty Epilepsy Clinics	х	Х	х	Х	Х	Х	х	х	х	Х	х	Х	Х	Х	Х	х
Epilepsy Video Telehealth Clinics	х	Х	х	Х		Х		х	х	Х	х	Х	Х	Х		х
eConsult	х			Х	Х	Х			х					Х		
Telephone Clinics	х			Х	Х	Х	х	х		Х	х		Х	Х	Х	х
Epilepsy Inpatient Consultation	х	х	х	Х	х	Х	х	х	х	х	х	Х	Х	Х	Х	х
Scalp Video-EEG Telemetry (Phase 1), # of Beds	2	2	4	2	3			4	3	1	2	2	3	1	2	3
Ability to Perform Wada Testing		х	х		Х			х	х		х		Х	Х		х
Ability for Pre-Surgical Neuropsych Testing	х	х	х	х	х	х	х	х	х	х	х	х	х	х		х
Placement of VNS	х	х	х		х	х	х	х	х		х	х	х	х		х
Epilepsy Surgery		х	х		х			х	х		х		х	х		х
Epilepsy Protocol MRI Imaging	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
PET Scanning	х	х	х		х	х		х	х	х	х	х		х	х	х
Intra-Operative ECOG		х	х		х			х	х		х		Х	Х		х
Invasive Monitoring (Phase 2) Subdural Grids/ Strips		х	х		х			х	х				х	х		х
Invasive Monitoring (Phase 2) Depth Electrodes		х	х		х			х	х				х	х		х
Deep brain stimulation		х	х		Х			х								х
Magneto encephalography																
Radio Surgery (Gamma Knife)								х								
Functional MRI (fMRI)								х		Х						х
Ambulatory EEG	х	х			Х			х	х		х	Х	Х	Х	Х	х
					0				œ							
					5833	2752			1772			2002			4724	3748
	36	95	66	92	62 x	11 X	61	35	01 ×	33	82	00 x'	82	4	11 ×	× 00
	7.42	8.35	9.55	7.42	0.82	5.17	7.51	4.88	6.19	2.76	4.60	5.70	6:29	741	2.57	5.50
	612.467.4236	310.268.3595	415.379.5599	206.277.4292	503.220.8262 x58330	505-265.1711 x2752	210.617.5161	713.794.8835	608.256.1901 x17728	813.972.7633	352.374.6082	305.575.7000 x7008	919.416.5982	410.60.7414	203.932.5711 x4724	804.675.5000 x3748
Primary ECoE Contact Phone Number	61	31	4	20	2(	50	2	71	)9	81	35	30	91	41	20	80

# **SOUTHWEST REGION**

# **Accomplishments:**

- Epilepsy telemedicine established at 4 out of 5 sites.
   Each of these sites involved with CBOCs.
- Outreach to Polytrauma Level I & II Centers:
  - San Antonio Level I Center Research and EEG referrals
  - San Francisco Referrals from Palo Alto Level 1 Center to EMU and Epilepsy clinic
  - Houston Level II Center Referrals to EMU and Epilepsy clinic
  - West LA Level II Center Referral to Seizure clinic
- Resource Mapping for Southwest Region completed.
   There are 38 VA Hospitals within 11 States.
   Resources mapped:
  - o EMUs 3 out of 5 ECoEs
  - Epilepsy clinics 12 out of 38 sites
  - o Epilepsy surgery on site 3 out of 38 sites
  - Epileptologist on staff 14 out of 38 sites
  - Neurologist on staff 31 out of 38 sites
  - VAs with no neurologist on staff 7 out of 38 sites
  - EEG lab on site 29 out of 38 sites
  - o MRI on site 33 out of 38 sites
- Remote EEG reading is operational at Houston, San Antonio and West LA ECoEs.
- Epilepsy surgeries performed:

# **Temporal Lobectomies**

- Houston 3
- San Francisco 1
- o West LA 1

# Vagus Nerve Stimulation (VNS)

- Houston 3
- o West LA 3
- EMU Hub and Spoke Activity: (October 2011 through August 2012)
  - o Total number of unique patients monitored by San Francisco, Houston and West LA EMUs = 230.
  - This includes 93 referrals from 26 VA sites in 14 States.
- Meeting of Southwest Advisory Board held by conference call in December 2011. Board has expanded to include additional advocacy members from the Epilepsy Foundation in California and Texas.
- Fellowships (FTEEs split or on rotating basis):
  - Clinical Neurophysiology Houston 1, San Antonio 1, West LA 2, San Francisco 1
  - Clinical Polytrauma/Epilepsy San Francisco 2, West LA 1
- Administrative Infrastructure
  - Regional AO position converted from rotating to permanent basis (term appointment).
- SW Regional Directors held their annual V-Tel conference call in April 2012.

# Outreach/Education:

- Continued educational lecture series for patients, caregivers and providers.
- Continued support groups for epilepsy patients and caregivers.
- Multiple educational venues for residents, fellows and nurses.
- Clinical Neurophysiology and Clinical Polytrauma/Epilepsy Fellowships.



# Research:

- Patients Like Me (POEM study: Policy for Optimized Epilepsy Management)
  - PI: John Hixson, MD
  - o Pilot project conducted in San Francisco.
  - Study team working to roll out nationally.
- Restructuring Epilepsy Care: Organizational Dynamics and Quality.
  - o PI: Mary Jo Pugh, PhD
  - Objective: Describe changes in quality of and access to epilepsy care before and after implementation of the ECoE initiative.
- Houston, San Francisco, San Antonio and West LA:
  - Eighteen active protocols dealing with seizures including Merit Reviews, VA HSR&D, Clinical Trials, NIH, DoD, EFA

# **Publications:**

• FY12 total publications = 30+ relating to seizures. Of these, 7 deal with seizures in the Veteran population (including PNES).

# **Challenges/Barriers:**

- Budget limitations, e.g. staff bonuses and raises
- · Cost of patient travel and family lodging
- ECoE funding for San Antonio
- Working with local site committees and resources to initiate V-Tel and remote EEG reading
- Administrative infrastructure rotating Regional Director vs. permanent Regional Director

# **Future Initiatives:**

- Expand Epilepsy telemedicine to other States and VISNs
- Enhance relationships with consortium members
  - Outreach to Regional Epileptologists and Neurologists
  - Monthly V-Tel Epilepsy conferences calls
- Collaborate in PNES research and treatment efforts
  - o Identify Psychologists or Mental Health personnel to promote this activity
- Enhance clinical and research relationships with Polytrauma Centers
- Establish remote EEG reading capability between ECoE sites
- Solidly establish the SW Region infrastructure
- Develop Quality Assessment of targeted group of VA Quality Indicators

# SAN FRANCISCO VA MEDICAL CENTER

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# **FY12 Accomplishments:**

- Epilepsy provider to provider referral and epilepsy education will begin in September of this 2012 under the VA SCAN-ECHO program (Specialty Care Access Network- Extension for Community Healthcare Outcomes). This program will utilize video Telehealth to communicate directly with referring providers about their epilepsy patients. We have hired a full time nurse practitioner and program analyst to launch the program.
- Ongoing Video Telehealth
   Epilepsy Clinic at 4 sites: Eureka,
   Ukiah, Clearlake, and Fresno



- Epilepsy counseling services expanded, including screening for depression at clinic visits, case management, one-on-one counseling, and a monthly support group.
- Updated trainings for video sitters in the EMU, and revised seizure safety protocols.
- Performed invasive LTM recordings on two patients, followed by surgical resections.
- Established referrals from two new sites through outreach.
- Hired an additional part-time epileptologist.

# **Education / Outreach Activity:**

- Continued educational lecture series for patients and caregivers: every other month, including video and slide
  archive on <a href="https://www.epilepsy.va.gov">www.epilepsy.va.gov</a>. Lectures are evaluated and continuing education credits are available.
- Veterans Living with Epilepsy monthly support group.
- Outreached to caregivers, offering support group, referrals for services and caregiver appreciation day.

# **Challenges / Barriers:**

- Patients reluctant to travel to SF due to high cost of lodging for caregivers.
- Ensuring adequate mental health follow-up for patients from other VA sites.
- Difficulty for veterans with epilepsy to access care and resources with limited transportation options.

# **Future Initiatives:**

- Implement SCAN ECHO video Telehealth program. Target psychiatry, neuropsychology and pharmacy departments for collaboration.
- Increase pre-surgical evaluations and surgical volume.
- Expand patient video Telehealth to additional sites (Reno, Sacramento, SF Downtown).

# **GREATER LOS ANGELES VA MEDICAL CENTER**

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Elvadaseleithia.Woods@va.gov

# **FY12 Accomplishments:**

Davidson, Tricia

Woods, Elvada-Seleithia

Nguyen, Viet

Vacant

- The WLAVA ECoE has operated the Epilepsy Monitoring Unit (EMU) with the state-of-the-art HD video EEG
  monitoring equipment for two monitoring inpatient beds with remote viewing capability.
- The ECOE offices, EEG laboratory, faculty offices, conference room and Fellows Room have been renovated and moved to a new location on 3North.
- We have set up regular referral channels between the following VAs and West LA for epilepsy monitoring: Loma Linda VA, Las Vegas VA, Long Beach VA and San Diego VA.
- We have dedicated weekly seizure clinics at West LA, Sepulveda ACC and Los Angeles ACC with a team
  approach philosophy. The patients are evaluated by a team of epilepsy fellows, attending epileptologist,
  neuropharmacist, psychiatrist, psychologist and EMU nursing coordinator in one visit. EEG study, if indicated, is
  completed in the same visit.
- We have completed one phase II study with implanted intracranial electrodes.
- We have implanted vagus nerve stimulator in three patients.

Program Assistant/Coordinator

Pharmacist

Database Technician

Monitoring Technician

- Temporal lobectomies were performed in two patients,
- One patient received cortical mapping with electrical stimulation using implanted electrodes. We have special equipment to perform cortical mapping with software controlled current stimulation.
- We have established a WADA service team at the WLAVA. The team includes a neurosurgeon/interventional neuroradiologist, neuropsychologists, epileptologists, clinical neurophysiology and epilepsy fellows, EEG technician and pharmacists.
- We have established a regular "Epilepsy Surgical Conference" at WLAVA to make a group decision on epilepsy related surgical procedures. This conference takes place 1-2 times per month.
- We have established two CPRS template based notes to convene all relevant information for seizure clinic and for EMU admission (Epilepsy Center Physician Monitoring Note).
- We have developed the role of the neuropharmacist in seizure clinic and in EMU admissions by having a
  neuropharmacist provide a detailed drug history including duration and adequacy of exposure to AEDs for each
  patient.

# **Education / Outreach Activity:**

- The education program is led by Dr. James Chen. He is the director of the WLAVA/UCLA ACGME accredited Clinical Neurophysiology Program with two PGY-5 trainees. He is also the mentor of a non-ACGME VA Advanced Fellow in Epilepsy Research. All three fellows continued academic activities after the end of their fellowships.
- The fellowship training program and the ECoE operation are fully integrated. The ECOE provides the
  infrastructure for the fellows' clinical training and the fellows have added service and emergency coverage
  improvements to the ECoE.
- The outreach activity is led by Dr. Christine Baca.
  - -Loma Linda Telemedicine Outreach: a system was established for telemedicine epilepsy consultations for potential EMU referrals between West LA and Loma Linda VAs.
  - -Polytrauma Centers: contacts were established for referrals of patients from level 2 Polytrauma Centers at West LA and Tucson.
  - -Veterans Outreach Project: We worked in partnership with the Epilepsy Foundation of Greater Los Angeles (EFGLA) to develop and implement an educational outreach program for veterans with epilepsy residing in rural areas, their families, in addition to primary care providers treating veterans in outlying GLA CBOCs.
- Outreach activities included the following:
  - 1) Visit to the following CBOCs to meet and give lecture to heath care providers about the relationship between epilepsy and traumatic brain injury and introduce the new ECOE in LA: Bakersfield, Lancaster, Santa Maria / Santa Barbara / San Luis Obispo at the quarterly meeting of providers. During our visits to CBOCs we also provided educational materials about epilepsy to veterans in the clinic.
  - 2) Webinars by Dr. Christine Baca to patients/families.
  - 3) Provided educational materials about epilepsy to patients taking buses from outlying remote clinics to VA.
  - 4) Media campaign on VA GLA Intranet, VA GLA Facebook and Twitter page about epilepsy and TBI.
  - 5) Website developed www.Veteransandepilepsy.org.
  - 6) Public service announcements of epilepsy by EFGLA and Women in Film tagged with VA logo.

# **Challenges / Barriers:**

- Lack of a funding mechanism to reward cooperation in basic and/or clinical research between ECoEs. A "Center without walls" concept would help create an ECoE community in which the whole could be "greater than the sum of its parts".
- Provide telemedicine care across state line and VISN line.

# **Future Initiatives:**

- Telemedicine, specialty-subspecialty epilepsy care: between WLAVA and other VA sites in VISN 22.
- Telemedicine: we plan to expand our services to outlying primary care facilities that do not have a neurologist.
- Develop referral channels for Level 2 Polytrauma Centers: WLA and Tucson.
- Establish screening method for the patients in Polytrauma Centers.
- Dr. Chen plans to establish EEG research for post-traumatic epilepsy using advance quantitative EEG analysis algorithms.
- Dr. Wasterlain is working on developing a model of blast injury-induced epileptogenesis, and on the role of hypothermia in the treatment of refractory status epilepticus, as well as on finding research projects that could involve many ECOEs.
- Dr. Baca, in collaboration with the Southern California Epilepsy Foundation, is working on expanding the outreach programs.
- Dr. Escueta is setting up an epilepsy database for genetic studies, which includes Veterans with primary generalized epilepsies.

# RAYMOND G. MURPHY VA MEDICAL CENTER

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# **FY12 Accomplishments:**

- #1 in the nation for VA tele-epilepsy visits (based on 6/1/11-5/31/2012 VACO data).
- Triangulated visits with our Neurology providers, our tele-epilepsy patients and IFC with Epileptologists in the SW region.
- Established teleneurology training videos for TMS.
- Assisted in creation of teleneurology VA handbook that includes tele-epilepsy.

# **Education / Outreach Activity:**

Consultation with other VAs for help in establishing tele-epilepsy program.

# **Challenges / Barriers:**

- Expansion of tele-epilepsy into West Texas VA Hospitals/CBOCs.
- Having a dedicated, available tele-presenter at each CBOC.
- Need a tele-epilepsy scheduling clerk.
- Need an Epileptologist to replace Dr. Padin.

# **Future Initiatives:**

- Early FY 2013, 6 hour video EEG capability (Screening for complex seizure patients and possible candidates for transfer to major SW region site for surgery work-up). EEG video reading to be done by West Los Angeles VA in order to expedite referral to appropriate facility.
- Establishing objective measures for tele-epilepsy patients to ensure care by telehealth is equal to face-to-face care.
- Hire an epileptologist.

# MICHAEL E. DEBAKEY VA MEDICAL CENTER

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# **FY12 Accomplishments:**

- Started telehealth epilepsy clinics with 3 CBOCs – Richmond, TX, Conroe, TX & Lufkin, TX.
- Started formal telephone clinics
- Continued the hub and spoke care model in epilepsy monitoring unit (EMU) - referrals accepted from Arizona, Texas, Oklahoma, Kansas, Arkansas, Louisiana, Mississippi, Alabama, and Florida
- Performed 3 epilepsy surgeries and 3 VNS procedures
- Remote EEG reading fully functional
- Continued monthly non-epileptic stress attack self-help support group meetings to promote mutual support, sharing of coping strategies and internalizing locus of control.
- Performed resource mapping for the Southwest ECoE Region



- Recruited ECoE Consortium members from Oklahoma, Arkansas and Arizona.
- Recruited additional board member for the Southwest ECoE Advisory Board
- Redesigned and finalized Houston ECoE website
- Filled long term monitoring tech vacancy

# **Education / Outreach Activity:**

- Baylor College of Medicine Epilepsy/Neurophysiology Lecture Series presented to neurology residents, and clinical neurophysiology fellows.
- Presentations on epilepsy topics at Baylor College of Medicine Neurology Grand Rounds.
- Weekly VA epilepsy teaching conferences with neurology residents, and clinical neurophysiology fellows.
- Provide training experience for Neuropsychology fellows administration of EMU neuropsychological instruments.
- Neuropsychology fellows case conference Presentation of epilepsy and pseudoseizure topics.
- Full- time Neurophysiology/Epilepsy fellow who participates in epilepsy care, interpretation of EEG and EMU studies and education activities.
- Presentations of VA surgical candidates at the biweekly Baylor College of Medicine Epilepsy Surgery Conference.
- Participation in Baylor College of Medicine bimonthly Epilepsy Journal Club.
- Monthly non-epileptic stress attack education class for patients and caregivers.
- Nurses completed Seizure Precaution Competency.
- Alvin Community College Electroneurodiagnostic Technology Program—Students rotated at the Michael E. DeBakey VA (Houston) for EEG and EMU training.

# **Challenges / Barriers:**

- Technologist staffing difficulty in getting vacant positions filled due to local FTE restrictions throughout most of the current fiscal year.
- Working through local V-tel committee.
- Improving remote reading functionality slow.
- Budgetary issues –personnel, equipment, supplies.
- Travel cost- COS approval required for all "out- of- VISN" patient travel.
- Evaluate cost of surgery for patients outside VISN 16.

# **Future Initiatives:**

- Expand tele-epilepsy to more CBOCs and across state and VISN lines, especially Louisiana.
- Will be collaborating with the Northeast ECoE to develop treatment of PNES patients (Cognitive Behavior Therapy vs. Traditional Therapy)
- Enhance relationships with consortium sites.
- Participate as a SCAN ECHO site if the program is initiated in the ECoE system.
- Establish Nurse Competency in Epilepsy.
- Recruit 2 remaining EEG tech positions.
  - -Cross train techs (ECoG)
- Plan to submit research proposal to the South Central MIRECC pilot study program "Usefulness of Home Video Assessment in the Diagnosis of Paroxysmal Neurobehavioral Events of Uncertain Etiology".
- Plan to submit research proposal to Network Research Grants program of South Central VA Health Care Network "Functional Connectivity in Patients with Temporal Lobe Epilepsies and Psychogenic Non-Epileptic Seizures".

# AUDIE L. MURPHY VA HOSPITAL

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Tolstykh, Gleb	Research Physiologist			0		

# **FY12 Accomplishments:**

- Level I Polytrauma Center has been opened.
- Neuro Seizure clinics and EEG codes are accurately reported into ECoE codes.
- Chart-checks and telephone clinics consolidated into a Wednesday afternoon ECoE AED monitoring clinic staffed by one fellow, one PA, and one NP. One attending available for case management discussion.
- New ECoE clinic slots were created for ECoE Polytrauma evaluations in the Thursday afternoon ECoE clinic staffed by one fellow and one attending.
- Expanded clinical services with new Tuesday AM clinic staffed by one fellow and one attending.
- One FTE for a Clinical Neurophysiology fellow started
- Created the 1<sup>st</sup> Information Security Document for Epilepsy Monitoring Units at the VA.
- About \$ 400 K of brand-new Nihon Kohden equipment was received by the STX VA warehouse in March '12. An
  approved dedicated IT server with SQL license was purchased.

# **Education / Outreach Activity:**

- Effective network with the Epilepsy Foundation of Central and South Texas.
- The 5<sup>th</sup> annual Epilepsy Diagnosis and Management Symposium was presented on Saturday November 19<sup>th</sup>, 2011 at the La Quinta Medical Center Hotel. This symposium is a collaboration of the South Texas Comprehensive Epilepsy Center, a level IV center, at the University Hospital and the San Antonio VA ECoE.
- Grant funding from the National Epilepsy Foundation (EF) for an application outreach to Veteran families in South Texas.

- A one day event for health care providers, Veterans and their families was organized at the St. Mary's University campus. The title of conference was "Connect to Caring: A Conference for Veterans, Families and Care Providers on Monday May 14, 2012. The San Antonio ECoE had an exhibit table where brochures were provided to Veterans, their families, and health care providers. The conference was associated with the Counseling Master's program at St. Mary's University. More details at: <a href="http://www.visitsanantonio.com/meeting/events/event-details/index.aspx?id=9985">http://www.visitsanantonio.com/meeting/events/event-details/index.aspx?id=9985</a>
- A lecture with seizures videos was presented by the San Antonio ECoE "Identifying TBI & Epilepsy" for the
  professional breakout session audience included MDs, Nurses, healthcare professionals, Mental Health
  providers (LMFT, LPC, LMSW, LCDC, Psychologists) and clergy members targeted audience was providers
  working with Veterans and their families.

#### **Challenges / Barriers:**

- Institutional inertia
- Lack of ECoE funding
- Equipment was funded and arrived in March '12. It sits unpacked waiting for administrative approvals including IT and biomedical.
- Old video EEG equipment (c. 2002) with repeated times been in-service.
- We are down to a single EEG technician. Out of 20 applicants to fill a single approved

#### **Future Initiatives:**

- Installation of a 3-bed Epilepsy Monitoring Unit at the Progressive (Intermediate) Care Unit.
- Installation of 2 portable ambulatory video EEG units for the Polytrauma apartment units.
- Installation of 3 portable video EEG machines for routine and inpatient portable studies.
- Installation of 1 evoked potential machine.
- Installation of 2 review stations.
- Hiring of 2 EEG technicians
- Training of Nursing staff at the PCU for EMU deployment
- Hiring of a 0.625 FTE Epileptologist (with 0.375 at University)
- Request 1 FTE for program manager and 1 FTE for physician assistant.
- Conduct chart abstractions to validate and refine epilepsy identification algorithms using VA data.

#### NORTHEAST REGION

#### **FY12 Accomplishments:**

Maintained 2011 program accomplishments

#### Richmond

- Telemental Health established with West Haven
- Provided intra-operative monitoring for Neurosurgery operative cases
- Increased VNS referrals
- VHA Neurosurgery/Neurology Conference, Washington, DC
- Established a Director of Clinical Research Workgroup, Epilepsy Centers of Excellence

#### **Baltimore**

- Began CVT at two local CBOCs (Cambridge & Glen Burnie, MD)
- EMU expanded to two beds
- ECoE moved into new offices at the VAMHCS.
   This is the first time that ECoE has had its own office space
- Epilepsy Home Automated Tele-management (E HAT), a program for remote management of epilepsy patients, was begun in partnership with the MS Center of Excellence and their MS-HAT project



- Continue to enhance outreach to the New England region
- Piloted SCAN ECHO Program
- Began certification process for Psychogenic Non-Epileptic Seizures Cognitive Behavioral Therapy(PNES CBT)
- Awarded research grant to study epilepsy depression

#### **Future Initiatives:**

- Expand and strengthen regional network
- Maintain and expand on accomplishments of FY12
- Hold an ECOE NE advisory board meeting in October

#### Richmond

- Open 2 additional EMU beds in expanded polytrauma unit
- Establish Epilepsy/Polytrauma Fellowship
- Hire Tech, Epileptologist & Program Specialist
- Initiate SCAN ECHO

#### **Baltimore**

- Co-sponsor Epilepsy Symposium with UMD, JHU & Lifebridge Health in October
- Expand CVT & develop eConsults
- Continue to develop and expand E HAT

#### **West Haven**

- Seek extramural funding for research
- Expand CVT & SCAN ECHO
- Expand CBT for PNES



# HUNTER HOLMES McGUIRE RICHMOND **VA MEDICAL CENTER**

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Vacant	NP			0.500
Vacant	Medical Instrument Tech			1.000

#### **FY12 Accomplishments:**

- Telemental Health established with West Haven VAMC.
- Provided intra-operative monitoring for Neurosurgery operative cases.
- Increased VNS referrals.
- VHA Neurosurgery/Neurology Conference, Washington, DC.
- Established and Director of Clinical Research, Epilepsy Centers of Excellence.

#### **Education / Outreach Activity:**

- Richmond hosted the Northeast ECOE regional meeting.
- Richmond ECOE in conjunction with Virginia Commonwealth University hosted the 28th Annual Hans Burger Day Symposium on May 21 and 22, 2012.
- Invited Faculty, Epilepsy Skills Pavilion. (Course #1NP.001) American Academy of Neurology Annual Meeting, New Orleans, LA.

#### **Challenges / Barriers:**

- Hiring delays of Epileptologist, Surgical/Supervisory EEG Technologist, and Program Specialist.
- Limited access to EMU beds, currently limited to one admission/month.

#### **Future Initiatives:**

- Two Additional EMU beds are in the process of being built in the expanded polytrauma unit.
- First Epilepsy/Polytrauma Fellowship established.
- Hiring of an additional epileptologist.
- Hiring of an additional technologist for OR monitoring and seizure surgery.
- Initiating Scan Echo.
- Hiring a Program Specialist to assist in creating/initiating new projects for National ECOE Research Program.

#### **Other Information:**

- VHA Neurosurgery/Neurology Conference, Washington, DC- Collaborative Program between the VHA National Surgery Office and National Neurology Office- April 12-13, 2012.
- The Hans Berger Lecturer Award: for Outstanding Contributions in Electrophysiology, Epilepsy, and Neuroscience - award to Alan Towne, MD, May 2012.

- Purchase of Dense Array EEG.
- Section Editor (Epilepsy), Current Treatment Options in Neurology. Volume 15:3, 2013. Section Editor (Epilepsy), Current Treatment Options in Neurology. Volume 14;4, 2012.

#### VA MARYLAND HEALTH CARE SYSTEM

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Vacant	Program Asst			0.500
Vacant	Medical Instrument Tech			1.000

# **FY12 Accomplishments:**

- ECoE moved into new offices at the VAMHCS.
   This is the first time that ECoE has had its own office space.
- The first patient was seen via Clinical Video Telehealth (CVT) at the local Cambridge, MD CBOC. CVT has also been established with Glen Burnie CBOC.
- Epilepsy Home Automated Tele-management (E-HAT), a program for remote management of epilepsy patients, was begun in partnership with the MS Center of Excellence and their MS-HAT project.
- Epilepsy monitoring unit was expanded to two beds.



# **Education / Outreach Activity:**

- Nurse Case Manager developed ECoE NE brochure with information on services available at the three NE CoEs. Brochure was distributed to all facilities in the Northeast.
- Letters, Consortium applications and ECOE brochures have been mailed to all facilities within the NE region.
   Chiefs of Staff and Neurology were asked to forward to all interested clinicians in their facility.
- Planning for the FY13 Epilepsy Symposium include the offer to cover registration costs for any VA clinician in the ECOE – NE network.

#### **Challenges / Barriers:**

- Limited space for clinics, long term monitoring and other activities.
- Resources for innovative clinical research/outcomes programs such as E-HAT (Epilepsy Home Automated Telehealth and PNES.
- VISN and facility resources for Baltimore telehealth expansion into CBOCs.

#### **Future Initiatives:**

- Expansion to two-bed EMU with construction of Progressive Care Unit.
- Expansion of research initiatives to include clinical research.
- Exploration of CVT (Clinical Video Telehealth) to expand clinical expertise into geographically underserved areas.
- Expansion of clinical network for referrals and consultations.

## **Other Information:**

- In February 2012, Dr. Krumholz gave an ECoE national web-conference for health professionals on Intractactable Epilepsy.
- Dr. Krumholz was interviewed in Epilepsy Advocate in a piece titled "Sleep and Epilepsy".
- Published an online update on Epilepsy and Driving (Krumholz A, Hopp J. Epilepsy and Driving. UpToDate 2011 and 2012).

#### VA CONNECTICUT HEALTHCARE SYSTEM

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Recruiting	APRN			1.000
Recruiting	RN			0.500

## **FY12 Accomplishments:**

- Continue to enhance outreach to the New England region.
- Piloted ECHO Scan Program.
- Began certification process for Psychogenic Non-Epileptic Seizures Cognitive Behavioral Therapy (PNES CBT).
- Awarded research grant to study epilepsy depression.

#### **Education / Outreach Activity:**

- Epilepsy Conference with the Epilepsy Foundation, November 3, 2012.
- Received grant with Epilepsy Foundation to educate clinicians and patients throughout New England.
- Dr. Hamid has given lectures CME SCAN ECHO for CME credits.
- Dr. Hamid lectured on PNES and Mood disorders at the Annual Yale University Epilepsy CME Program.

#### **Challenges / Barriers:**

- Beds.
- Recruitment for EEG Tech.
- Recruitment Epileptologist.
- New Travel Restrictions.

#### **Future Initiatives:**

- Seeking extramural funding for research.
- Expand ECHO SCAN/Telemedicine.
- Expand CBT for PNES.

#### **Other Information:**

 Received Veteran and Urban Outreach Grant from Epilepsy Foundation to coordinate outreach efforts to rural New England veterans.

#### NORTHWEST REGION

#### **FY12 Accomplishments:**

- Portland began remote EEG service to Boise.
- Tele epilepsy began in Madison.
- Dr. Salinsky awarded VA Merit grant on Epilepsy/PNES.
- Research Career Development award to Dr. Ransom.
- Portland graduated first VA fellow and now a VA employee.
- Veteran on advisory board and advisory board met with report generated.
- Rural health grant for tele-medicine at Madison.
- EEG technologists meeting at annual ASET.
- Meeting to plan TBI/PTE data base at AES at 2011 meeting.
- EMU safety video produced at Puget Sound VA.
- Provider satisfaction survey developed.
- Consortium sites in all states of region.



#### **Education / Outreach Activity:**

- July 2012: patient and caregiver phone conference "Epilepsy Medication"; Barry Gidal, Pharm.D.
- February 2012: Epilepsy Update Dinner Meeting, UW Platteville; Barry Gidal, Pharm.D.; 56 attendees.
- November 2011: Epilepsy Foundation Annual Dinner, Keynote address, "After the War, the Battle has Just Begun"; Paul Rutecki, MD; 69 attendees.
- Ongoing nursing in-services.
- Dr. Salinsky has visited and/or presented epilepsy educational programs at Seattle VAMC, Roseburg VAMC and Boise VAMC.
- Dr. Salinsky presented a National Provider Education Audio Conference on "Psychogenic Seizures in Veterans".
- Dr. Salinsky attended and presented at the NW ECoE annual meeting, Seattle, Wa.
- Ms. Evrard presented a National Patient Education Audio Conference on "Epilepsy in the Geriatric Population"
- Dr. Boudreau presented a National Patient Education Audio Conference on "Sleep and Epilepsy"
- Ms. Evrard is collaborating with the ECoE Nursing Workgroup to create an EMU Safety Video, developing a script for this project and (in Washington, DC and Seattle) filming the video.
- Completion of our first VA epilepsy research fellowship (A. Gilkey MD). Dr. Gilkey has now taken an epileptologist position with the VA (Indiana).
- August 23,2012, Seizures in the ICU, for Critical Care Consortium, Swedish Medical Center, Seattle (Ozuna).
- September 6, 2012 Patient and Caregiver Education Phone Conference: "Medication Compliance" (Ozuna).
- Jan. 12, 2012: Seizure Disorders, for CNRN (Certified Neuroscience Registered Nurse) Review Course, Swedish Medical Center, Seattle (Ozuna).
- Interview with Dr. Ransom on Northwest Cable News June 13, 2012.
- Collaboration between the ECoE in Seattle and Portland and the Northwest Epilepsy Foundation: 400 infomercials (30 seconds each) were aired on the Northwest Cable News Network. They were directed to the general population, members and former members of the Armed Forces who are, or may know, someone who has suffered from head injury, seizures, and epilepsy during or after their service in the military. ECoE contact info in Seattle and Portland was provided.

 During the month of September, the Puget Sound Health Care System ECOE taped a thirty minute radio interview show to be featured on Clear Channel Radio which will be aired on six of their seven stations covering multiple counties and the entire genre of listening audiences in the Puget Sound area. The interviewees will consist of Seattle ECoE faculty and a representative for Operation Enduring Freedom." Topics to be discussed are TBI, seizures, epilepsy, the various ECOE site, it history and current trends and the future of the ECOE.

#### **Future Initiatives:**

- Develop administrative infrastructure.
- Increase consortium and offer E-consults.
- Establish tele-epilepsy at all NW sites.
- Increase tele-EEG (Roseburg).
- Increase patient and provider feedback.
- Decrease fee-based service.
- Improve EEG technologist retention and promotion.
- Develop strong ECoE EEG technologist consortium.
- Continue educational efforts and develop novel patient educational tools.
- Develop mini fellowships.
- Consortium CME meeting.
- Grow research fellowships.

#### WILLIAM S. MIDDLETON VETERANS HOSPITAL

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#### **FY11 Accomplishments:**

- Continued EMU service with 40 patients YTD studied from 5 VISNs and 11 medical centers.
- Established a Tele-epilepsy clinic with Madison VA supported by telehealth award for rural health from VA.
- Coordinated meeting on posttraumatic epilepsy and how VA/DoD databases could be used to screen for the development of posttraumatic epilepsy.
- Enrolled 11 centers into consortium.
- Developed provider satisfaction survey.

#### **Education / Outreach Activity:**

- July 2012: patient and caregiver phone conference "Epilepsy Medication"; Barry Gidal, Pharm.D.
- February 2012: Epilepsy UpDate Dinner Meeting, UW Platteville; Barry Gidal, Pharm.D.; 56 attendees.
- November 2011: Epilepsy Foundation Annual Dinner, Keynote address, "After the War, the Battle has Just Begun"; Paul Rutecki, MD; 69 attendees.
- Ongoing nursing in-services.

#### **Challenges / Barriers:**

- Maintaining and recruiting personnel.
- Accounting and prioritizing our budget.
- Improving work load capture.

#### **Future Initiatives:**

- Replacing Joann Jastrab, Administrative Officer.
- Growing tele-epilepsy clinic.
- Establishment of electronic epilepsy consults offering chart review consults for consortium members.



- EEG Lab Accreditation.
- ECoE EMU Safety publication in ASET Journal.
- Committee Chair for ECoE EEG ASET Conference Meeting 2013.

# **Other Information:**

- MIT Title Hybrid and EEG Lab Accreditation Presentation at Seattle Washington regional annual ECoE meeting.
- Dr. Rutecki member of national Tele-neurology work group, development of Tele-neurology operations manual.

#### MINNEAPOLIS VA HEALTH CARE SYSTEM

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Vacant	Neurologist			0.800
Vacant	Neurologist			0.300
Vacant	Nurse Practitioner			0.500

#### **FY12 Accomplishments:**

- Established tele-health clinic and service agreements with CBOCs (Community based outpatient clinics)
- Tele-health equipment acquired and located in neurology
- EEG technologist upgraded from GS 8 to GS 9
- Continue improvement of workload capture
- Updated EMU procedures and order set.
- Upgraded EMU equipment including seizure detection software and high-definition cameras.

#### **Education / Outreach Activity:**

- Clinical neurophysiology fellow received extensive training in EEG during their VA rotation.
- All neurology residents have a 4 week rotation in EEG and clinical neurophysiology at the VA
- All medical students rotation on Neurology received training in EEG basics.
- All EMU nurses received education in seizure management, identification, safety and procedures including live simulation on manikin.
- Continued training of nursing assistants / EMU monitor technologist

#### **Challenges / Barriers:**

- Unable to hire a nurse practitioner assigned to the ECoE.
- Unable to recruit an additional epileptologist.
- Remodeling of EMU not prioritized
- Resistance to implementation to team work approach.
- Poor salary support for EEG technologist.

## **Future Initiatives:**

- Replace Nurse Practitioner
- Hire an additional epileptologist.,
- Expand and increase utilization of tele-health clinical services to CBOC's and to other facilities in VISN.
- Increase collaboration with polytrauma and DVBIC.
- Implement CITRIX server for off-site review.
- Hire and train an additional nursing assistant / EMU monitor technologist
- Expand epilepsy nursing education to other hospital units and polytrama center
- Remodel EMU to a four bed unit with a central patient lounge area and dedicated nurse station.
- Implement a 3 month rapid process improvement workshop for EMU focused to achieve high quality patient care
- Work with human resources to increase the grade level of two EEG technologists from an GS8 to GS9 and another from a GS9 to a GS10.

#### PORTLAND VA MEDICAL CENTER

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Portland VA Medical Center

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#### **FY12 Accomplishments:**

- Successful implementation of remote Tele-EEG link with Boise VAMC; over 100 procedures projected for this FY.
- · Recruitment of program administrator.
- Funding of VA Merit Review research study (multicenter) on Psychogenic Non-epileptic Seizures.
- Infrastructure for telemedicine seizure outpatient clinics created. Implementation to begin 10/12.
- Established citrix based remote access to completed and ongoing studies within the Epilepsy Monitoring Unit (EMU).
- Completed remodel of EMU unit rooms.
- Completed updated training module for EMU nurses at Portland VA.

#### **Education / Outreach Activity:**

- Dr. Salinsky has visited and/or presented epilepsy educational programs at Seattle VAMC, Roseburg VAMC and Boise VAMC.
- Dr. Salinsky presented a National Provider Education Audio Conference on "Psychogenic Seizures in Veterans"
- Dr. Salinsky attended and presented at the NW ECoE annual meeting, Seattle, WA.
- Ms. Evrard presented a National Patient Education Audio Conference on "Epilepsy in the Geriatric Population,"
- Dr. Boudreau presented a National Patient Education Audio Conference on "Sleep and Epilepsy".
- Ms. Evrard is collaborating with the ECoE Nursing Workgroup to create an EMU Safety Video, developing a script for this project and (in Washington, DC and Seattle) filming the video.
- Completion of our first VA epilepsy research fellowship (A. Gilkey MD). Dr. Gilkey has now taken an epileptologist position with the VA (Indiana).



#### **Challenges / Barriers:**

- The lack of an administrative assistant has hampered our ability to forward planned programs. We were unable
  to hire for the last 18 months due to a freeze. As a result patient education programs were cancelled and rollout
  of telemedicine was delayed. The position was filled 4th Q.
- An increase in outpatient clinic referrals has challenged our provider capacity. We have restructured for FY13 in order to better meet demand.
- An EEG technologist retired and has not yet been replaced.

#### **Future Initiatives:**

- Remote tele-EEG network will expand to the Roseburg VAMC (as of 10/12). Equipment has been obtained.
- Telemedicine outpatient clinics to Roseburg VAMC and to Boise VAMC will begin (tentative 1st Q).
- Initiation of multicenter Merit Review funded research study on 'Psychogenic Seizures in Veterans (with Madison, WI. VA and San Francisco Ca. VAMC); scheduled 1st Q.
- Restart local patient education presentation series.
- Begin 'mini-fellowships'; bringing providers (epilepsy champions) from remote VAMCs (Roseburg, White City, Boise, others) to Portland for 1 week of intensive experience within the epilepsy center.

#### **Other Information:**

- Outpatient clinic with projected (annualized) 881 visits this FY (301 new consultations).
- Epilepsy monitoring Unit with projected (annualized) 48 veterans admitted (232 days of inpatient monitoring.
- >400 EEG studies.
- >100 EEG studies interpreted through the Boise VA Tele-EEG link.

#### PUGET SOUND VA HEALTHCARE SYSTEM

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www.pugetsound.va.gov/services/epilepsv.asp



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### **FY12 Accomplishments:**

- Our EMU has been converted so that we can now monitor two patients instead one. This includes dual internet access for the patients as well a dual individual televisions. This should greatly reduce our admission wait times which have been up to about eight weeks. We have also added a nursing computer in the room for instant charting as needed.
- VA Puget Sound ECoE staff and EMU was featured in a VA nursing educational video on "Patient safety in the epilepsy monitoring unit" that will be distributed nationally.
- Puget Sound Health Care System hosted the Northwest Regional ECoE conference held on the 3rd and 4th of May. Directors from the regional medical centers, nurses and administrative officers were in attendance.
- The ECoE Telemedicine clinic is on schedule to start accommodating patients by the end of summer 2012. All the administrative and technical issues have been resolved. The first site we will connect with is the CBOC in Yakima, Washington followed by VA Anchorage, Alaska.
- Due to our continuing education with the nurses on our inpatient unit, we now have four nurses on that unit who
  are close to obtaining their Certification in Neurology (classes are completed and they now are working on their
  required hours.) These dedicated nurses will be the first group of cohorts to champion Neurology and the ECOE
  at the Puget Sound Health Care System.
- VA Puget Sound has ongoing, funded research projects that have led to peer-reviewed publications and presentations at international meetings.

#### **Education / Outreach Activity:**

#### **Nursing Education**

- Weekly meeting with the Nurse Manger or the assistant nurse manager of the Neurology unit with respect to upcoming admission, patient safety, room setup and compliance with ECOE standards of care. (Flaherty).
- Nurse Ozuna chaired monthly meetings of the ECoE Nursing Workgroup. The group developed safety guidelines and nurse competencies for the epilepsy monitoring unit.
- Planning and participation in producing educational video program for nurses "Safety in the Epilepsy Monitoring Unit" sponsored by ECoE (production took place at Seattle VA, Aug. 15-16, 2012) (Ozuna).

- Oct. 31: Seizures in Critical Care, for Northwest Critical Care Consortium Evergreen Medical Center, Redmond, WA (Ozuna).
- Nov. 16: Seizure First Aid to nursing staff, 4 East (two presentations to cover all shifts) (Ozuna).
- Nov 16, 2011 Class on New Seizure Template Early AM for nights and day's afternoon class for Evening shift. (Flaherty).
- Nov. 17: Seizure First Aid to nursing staff, 6 West, night and day shift staff (Ozuna).
- Nov. 18: Seizure First Aid to nursing staff, 6 West, day and evening staff (Ozuna).
- March 16, 2012 educational meeting with the four nurses who are becoming certified in Neurology. (Flaherty).
- Jan. 12, 2012: Seizure Disorders, for CNRN (Certified Neuroscience Registered Nurse) Review Course, Swedish Medical Center, Seattle (Ozuna).
- Feb 15, 2012: Class on Standardized policies and procedures for EMU. (Flaherty).
- March 7, 2012 Lectures on seizure classification given to VA nursing staff (4 east) (Ransom).
- August 23,2012, Seizures in the ICU, for Critical Care Consortium, Swedish Medical Center, Seattle (Ozuna).
- September 6, 2012 Patient and Caregiver Education Phone Conference: "Medication Compliance" (Ozuna).

#### **Physician Education**

- Bi-Weekly patient based teaching (to neurology residents and medical students assigned to Epilepsy Clinic) on the diagnosis and treatment of epilepsy (Ransom and Spain).
- Weekly instruction and review of EEG interpretation and LTM data with inpatient neurology residents. (Ransom).
- Lecture on seizure classification given to Internal Medicine residents and attendings at their "Chief of Medicine Conference." (Ransom).
- UW Neurology Grand Rounds, didactic on "Basic Neurophysiology" (Ransom).
- UW Neurology Grand Rounds, research seminar titled "Tuning the tone of extrasynaptic GABAA receptors in health and disease." (Ransom).
- Jan, 2012, ""Rapid regulation of tonic GABA currents in hippocampal neurons" presented to ECoE Basic Science Research Group (Ransom).
- Dec, 2011, "Resonant firing in cortical neurons" presented to ECoE Basic Science Research Group (Spain).

#### **Community/Patient Education and Outreach**

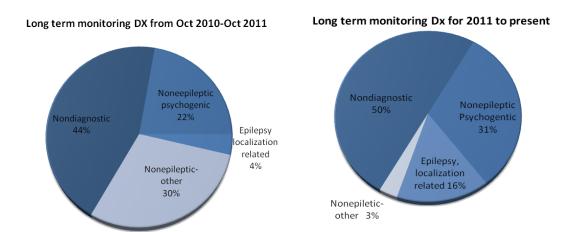
- Interview with Dr. Ransom on Northwest Cable News June 13, 2012.
- Collaboration between the ECoE in Seattle and Portland and the Northwest Epilepsy Foundation: 400 infomercials (30 seconds each) were aired on the Northwest Cable News Network. They were directed to the general population, members and former members of the Armed Forces who are, or may know, someone who has suffered from head injury, seizures, and epilepsy during or after their service in the military. ECoE contact info in Seattle and Portland was provided.
- During the month of September, the Puget Sound Health Care System ECOE taped a thirty minute radio interview show to be featured on Clear Channel Radio which will be aired on six of their seven stations covering multiple counties and the entire genre of listening audiences in the Puget Sound area. The interviewees will consist of Seattle ECoE faculty and a representative for Operation Enduring Freedom." Topics to be discussed are TBI, seizures, epilepsy, the various ECOE site, it history and current trends and the future of the ECOE.

#### CME by ECoE staff

• Debbie Perkins, R.EEGT, attended the first ECOE-EEG conference which was held in St. Paul, Minnesota on the 1st of August 2012.

#### **Challenges / Barriers:**

- Hiring additional EEG technologists has not been possible to date. Our capacity to monitor multiple patients in the EMU has been limited by the workload constraints of our EEG technologists.
- Progress has been made towards establishing tele-medicine for epilepsy patients but implementing an effective system for this, identifying appropriate patients, and establishing local "champions" is an ongoing challenge.
- A large number (50%) of monitored patients are discharged without the etiology of their spells being established (nondiagnostic). (See chart below which shows the discharge diagnosis based upon video-EEG data).



## **Future Initiatives:**

- Transition from permanent EEG leads to disposable leads to ensure sterility and reducing infection risk.
- Working with local IT department to establish Telehealth network in Anchorage, Alaska.
- We have established a working group to review our EMU admissions over the prior 5 years to evaluate ways to increase diagnostic yield for EMU admissions.
- Continue to find creative and informative ways to improve our educational outreaches to the community, veterans and staff we serve.

#### SOUTHEAST REGION

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#### **FY12 Accomplishments:**

- HL 7 Installation completed at all 4 sites.
- Expansion of tele-epilepsy. Clinics operational at 3 out of 4 sites.
- Epilepsy Clinical Template approved as National Patch. Tentative date for piloting is September, 2012
- Strategic Planning (to include grass roots campaign) was successful in engaging regional epileptologist (ECoE and non-ECoE) in collaboration.
- SE ECoE education and instructional video completed.
- National ECoE education and instructional video completed.

# **Education / Outreach Activities:**

- Participated as vendor in the Florida Epilepsy Foundation legislation day.
- Participated as vendor in the Durham, NC homeless event.
- Completed mail notification project. All 35 VA medical centers and the state epilepsy foundation organizations in the southeast region received information packets on the ECoE.
- ECoE website was added as a link on the websites for affiliated state epilepsy foundations in the southeast region.
- Co-Sponsored booth with Duke at Durham VA Medical Center for Epilepsy Awareness Day.
- Facilitated 2nd Annual National ECoE EEG face-to-face meeting at ASET conference.
- National course Statistics in Evidence Medicine course www.epilepsy.va.gov/Statistics
- VERA Epilepsy Re-classification Proposal white paper.
- Provided National Instructional guide for telephone encounters (ECoE Workload workgroup).
- Assisted in drafting the National Instructional guide for prolonged video monitoring (ECoE Workload Workgroup).

## **Challenges/Barriers:**

- National prioritization and support required for Clinical Templates may result in additional delays. This includes SQL Programmer needed to manage data generated from using Template in CPRS.
- Uneven distribution of the SE ECoE's in the region.





# **Future Initiatives:**

- Working on proposal for contracted remote long-term monitoring sitters.
- Expansion and enhancement of the Tele epilepsy consultation calls to include education and training components.
- Implement Scan -ECHO processes.
- Tele-epilepsy between ECoE and non ECoE sites.
- Expand attendes in Monthly consultation call.
- Collaborations with PADRECC and MSCOE.
- Enhance the referral process encompassing the physical movement of patients.
- Implement Clinical Template Nationally.
- Offer an additional Statistics Course.
- Complete Marketing blitz with video packet distributions.
- Epilepsy prevelance & incidence study for annual report.

#### **DURHAM VA MEDICAL CENTER**

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Durham VA Medical Center

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#### **FY12 Accomplishments:**

- Tele-epilepsy clinics set-up.
- Referrals process utilized to provide specialized services to Veterans outside Durham general catchment area
- Updated encounter forms to improve accurate workload capture.
- Wiring project for LTM beds completed to allow for continuous submission of data and eliminating the delays associated with having to download data following the completion of the LTM multi-day monitoring.
- HL7 Implemented.
- Hired Epileptologist.
- New additional fellowship program.

## **Education / Outreach Activity:**

- Lead training for appropriate coding on encounters SE ECoE.
- EEG Techs co-chaired the National EEG Workgroup.
- Participated in the SE ECoE education and instruction video project.
- NP's co-led bi-monthly support group for veterans living with epilepsy.

#### **Challenges / Barriers:**

- Acquiring appropriate qualified sitters for

  ITM
- Recruitment as pool of specialized epilepsy clinicians is limited.
- Telehealth staffing at remote sites.
- Lack of EEG tech on-call pay.



# **Future Initiatives:**

- Increase tele-epilepsy clinics.
- Referral bases with additional medical centers.
- Enhance / Improve referral process.
- Scan Echo.

# **Other Information:**

• Durham Leadership approved conversion of TERM regional positions to Permanent.

# BRUCE W. CARTER DEPARTMENT OF VA MEDICAL CENTER

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## **FY12 Accomplishments:**

- Continuation of EcoE tele-epilepsy services.
- Equipment upgrade for EEG outpatient and inpatient telemetry.
- Growth in IOM surgeries.
- Recruitment of IOM/EEG fee-basis techs.
- Institution of new coding system for technicians and physicians.
- Creation of Epilepsy Clinic template with database/registry capabilities.
- Access to diagnostic procedures and Epilepsy clinics have been improved to meet the target of scheduling patients within 14 days of desired date
- Establishment of clinical practice guidelines in CPRS
- Status Epilepticus and seizure treatment quidelines in CPRS.
- Nurse and technician note templates for EMU.
- On-call coverage has been expanded to cover at all times to include weeknights and weekends.
- IOM course Educational course given to epileptologist and technicians in May 2011.
- Full implementation of HL-7 system.
- · Remote EEG viewing capabilities achieved.
- Development and implementation of computerized physician order entries for status epilepticus treatments following evidence-based medicine.
- Full conversion of brand to generic antiepileptic drugs for levetiracetam topiramate and lamotrigine following a hospital-wide protocol developed in coordination with pharmacy services.



- Use of telephone encounters to improve workload.
- Full implementation of communication of test results (EEG) to all patients within seven days of the study.
- Increase in number of EMU procedures done weekly.

#### **Education / Outreach Activity:**

- Educational lectures given to the sitters and nurses: Early recognition of seizures at the EMU and plan of action. Lectures provided by Dr. Lopez.
- 4 lectures per year give to the Fellows and Residents.
- Weekly surgical/management of intractable epilepsy attended by multidisciplinary care of Neuropsychologist, Surgery and Epileptologist, residents and Neurophysiology fellow.
- Conference cases and case discussion with Puerto Rico or Dr. Naselli.

#### **Challenges / Barriers:**

- Bureaucratic processes and delays.
- Budgetary constraints.
- Limited amount of space.

#### **Future Initiatives:**

- Grow to a level of tertiary care that can do phase 2 evaluation. That will imply having a neurosurgeon trained in epilepsy surgery, capacity to perform WADA test and SPECT.
- Increase area of research involving epilepsy and sleep disorders as well as epilepsy and depression.
- Accreditation of the EEG lab by ABRET (American Board of Registration of electroencephalographic and evoked potential technologist.
- Increase research activity investigating topics in Epilepsy and Sleep; Epilepsy and Depression and Epilepsy and TRI
- Dr. Andres Kanner, known epileptologist will join the Miami VAHCS effective December 1, 2012. This will expand the research initiatives in our ECOE.

#### **Other Information:**

- Dr. Lopez is a co-investigator of the following studies at University of Miami.
- A Multicenter, Open label, Long Term, Safety, Tolerability and Efficacy Study of retigabine in Adult Epilepsy Patients with Partial Onset Seizures
- Assessment of Suicidality in Epilepsy- Rating Tools (ASERT)
- Efficacy and safety of the use of Memantine for preserving cognition in adult patients with epilepsy.

#### MALCOM RANDAL VA MEDICAL CENTER

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Welcome to the North Florida/South Georgia Veterans Health System

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#### **FY12 Accomplishments:**

- Participation in production of ECOE video
- Participation in production of <u>Safety in the EMU</u> video
- Increased number of patients participating in telemedicine clinics
- Installed all equipment for two additional EMU EEG monitoring rooms in the new bed tower
- Moved all equipment from ward 2D to the new tower for two EMU EEG monitoring rooms
- Capturing workload credit for video EEG Monitoring
- Reduced number of No Shows by calling the Friday before admissions to remind patient of apt
- Have coordinated studies needed during hospital admission for Video EEG Monitoring (PET-MRI)
- Updated patient/family information letter to simplify it and made it more clear regarding expectations upon admission

# **Education / Outreach Activity:**

- Epilepsy presentations to VA Nursing Academy students
- ECOE presentation to VA Advanced Practice Nursing forum
- Epilepsy presentations to N. Central Florida Epilepsy Foundation support group
- EEG Recording Strategy formal lecture to the Neurology Residents

# **Challenges / Barriers:**

• Unable to admit seven ECoE patients due to lack of sitters by the nursing unit.

## **Future Initiatives:**

- QA/QI Project: Telemedicine in the Care of Veterans with Epilepsy
- Training all personnel on correct workload capture procedures
- Providing sitters for LTM patients that do not have someone accompanying them

#### **Other Information:**

 Scott Bearden was the recipient of the 2012 Maureen Berkeley Award for his "Utility of EEG in Differential Diagnosis of Adults with Acute Alteration of Mental Status" article that was published in the Am J Electroneurodiagnostic Technol.

# JAMES A. HALEY VETERANS HOSPITAL

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Vacant	Administrative Officer				

# **FY12 Accomplishments:**

- Obtained Clinical Neurophysiology Fellow funded by VA
- Expanded Long-term Video-EEG monitoring services
- New Video Teleconference/Tele-Health and Ambulatory Video-EEG equipment
- Established telemedicine (telephone) clinic
- Re-classified EEG Techs' Grade/Step to ensure more competitive compensation

#### **Education / Outreach Activity:**

- Established local monthly patient/caregiver lecture series
- Participate in monthly surgical case conferences via V-Tel with other SE ECoE sites

#### **Challenges / Barriers:**

- Lead EEG technologist retired, await start of replacement 9/2012
- · Limited night and weekend EEG technician availability
- No consistent standard for patient observation
- Not accurately capturing workload
- Limited space and outdated facilities
- No dedicated LTM/EMU patient rooms (use portable equipment for floating bed assignments)
- Limited administrative support

#### **Future Initiatives:**

- Establish Tele-Health clinic to improve outreach/patient access
- Beta test using telemetry techs for video observation of EMU patients
- Hire dedicated ECoE administrative assistant
- Expand longterm video EEG monitoring services
- Ensure complete workload capture
- · Acquire remote EEG reading capabilities

#### **Other Information:**

 Difficulty capturing workload for epilepsy patients seen with residents in General Neurology clinic (2 half day clinics per week).

## NATIONAL WORKGROUPS

# **CLINICAL PROCEDURES**

#### **FY12 Progress and Accomplishments:**

- EEG Technicians
  - Guidelines for recruitment/promotion developed in FY11 and distributed nationally. Feedback received in FY12 from ECoE sites:
    - Each site must work with local HR policy (differs per site).
    - Information being shared/discussed among sites is ongoing.
- Pharmacy
  - o Consensus of group not to establish separate workgroup due to time constraints.
  - Kathy Tortorice continues as liaison to ECoE.
    - Provides guidance and updates on formulary issues, reports, medication shortages, etc.
- E-Consult (Provider to Provider consult credit)
  - Definition and workload specifications from VACO distributed to ECoE sites.
- Hub and Spoke Activity
  - o Consortium network continues to grow.
  - Current membership = 58 nationally.
    - Invitations extended to members to attend National VA Epilepsy Consortium Reception on 12/2/2012 in San Diego at AES.
  - Telehealth continuing to expand
    - Toolkit document by Andrew David distributed to all sites as resource.
    - Each site working with local policies and resources.
- Patient Travel Memo approved by VACO effective 01/12/2012
  - The purpose of this memo is to ensure consistency in determining responsibilities for costs associated with travel of Veterans to and from the VHA ECoEs.
  - The (parent) referring facility is responsible for the costs for the Veteran to be transferred for care to the ECoE; while the ECoE is responsible for the costs associated with the Veteran to return to their parent VAMC.
- National Patient Satisfaction Survey Developed
  - Approval in progress
- ECoE EMU Referring Provider Survey
  - o Pilot done at Madison site
  - Rolled out nationally in August 2012

# FY13 Goals and Initiative:

- EEG Tech classification upgrades Continue development and improvement of process.
  - Explore issues related to recruitment/retention bonus.
  - Review policies for OT, CT and On-Call pay variation among sites.
  - Local (VISN) Review Board vs. National Review Board.
    - Boarding process.
- Pharmacy
  - Develop medication treatment guidelines for: early onset patients, elderly patients and female patients.
- Roll out national Epilepsy Patient Satisfaction Survey when approved.

## WORKLOAD STANDARDIZATION

#### **FY12 Progress and Accomplishments:**

- Workload Capture continues to improve.
- · Provided list of accurate CPT codes and clarified use
  - Workload Standardization Clinic Set Up Stop Codes
    - Outpatient Clinic 345 Primary
    - EEG 106 Primary, 345 Secondary

- Telehealth 345 Primary, Secondary 690 originating site, 692/693 distance site
- Telephone Clinic 325 Primary, 345 Secondary
- EMU 128 Primary, 345 Secondary
- Group Education/Support Groups 345 Primary, 720 Secondary
- Individual Education 345 Primary, 714 Secondary
- E-Consult 345 Primary, 697 Secondary
- Telehealth guide
- Standardized EMU/Telephone clinic protocols
- VERA Classification for Epilepsy Diagnosis FY13 changes Creation of new classification in Group 4. Previously, most epilepsy diagnosed patients are in Group 2.

#### **FY13 Goals and Initiative:**

- · Capture all workload
  - o Patient education
  - o CPT workload credit for Physicians
  - o Tele-Epilepsy clinics improve and define workload capture
  - Continue making plans for rollout of ICD-10
  - Complete workload guidebook
  - o Completion of E-Consult for provider consultation calls
- VERA re-classification and reimbursements for Epilepsy
  - o Include secondary diagnosis
  - Cost of ECoEs vs. non-ECoEs
  - EMU visits
  - o TBI
- DSS labor mapping continuation
- Uniformed CPT coding through development of National Standardized Encounter Form

#### **DATABASE**

#### **FY12 Progress and Accomplishments:**

- Usability Testing completed.
- Template updated based on feedback from usability testing.
- Template checked and revised for AAN & NIH CDE alignment.
- HIMS and NTRT approvals received.
- Approval for release as a National Patch Priority 2 for release.

#### **FY13 Goals and Initiatives:**

- Templates installed via National Patch at all VAMC sites (Timetables and ability to meet goals and initiatives will be dependent on OI&T and CAC support schedules).
- Pilot template (first phase Durham, Miami & Gainesville).
- Training sessions for expected use of templates.
- Activate template at the 16 ECoEs.
- Create database on SQL server.
- Identify database support options.
- Build SAS database.

# **CLINICAL RESEARCH**

#### **FY12 Progress and Accomplishments:**

- TBI/database meeting in Baltimore Dec. 6-7, 2011
- Reorganization of Research Work Group, January 2012, into clinical and basic science groups
- QI/Research Project (MJ Pugh)

- Office of Rural Health RFP submitted by several ECOE sites. None were funded.
- In March 2012, the ECOE participated in planning for CURE (Curing Epilepsy) Conference to be held on March 27-29, 2013 to assess progress and new directions in epilepsy research.
- Epilepsy Phenome/Genome Project (EPGP) was presented by Dr. Dan Lowenstein
- EMU diagnostic classifications were developed to ensure consistent data collection out of EMU across pilot sites.
- Million Veteran Program (MVP) is a national VA ORD voluntary research program to partner with Veterans was introduced to the Research group as a potential long range data source.
- NIH ICARE conference June 2012: Overview of PTE research projects now and planned. Benefit of partnership outside VA/DoD.
- PNES Research subgroup formed.

### **FY13 Goals and Initiatives:**

- Development of prospective EMU database across all sites to begin January 2013
- Meet at AES conference in December 2012 to finalize database and other discussions
- CURE (Curing Epilepsy) Conference to be held on March 27-29, 2013 to assess progress and new directions in epilepsy research.
- Collaboration with pharmaceutical and device companies
- Explore implementation of home management options
- Continue Outcomes Research (Pugh)
- Continue Prevalence Research (Rehman)
- Explore data concerning seizures in the elderly
- Continue from FY12:
  - Collaborative spoke and hub organization across VA for researchers in epilepsy that includes both basic and clinical research
  - Define the diagnoses of patients evaluated at EMU and at ECoEs to determine potential collaborative projects (this would be the classification system proposed for the EMU outcomes).
  - o Consider multi-site pharmacy research initiative on AEDS in partnership with pharmacy service.
  - Develop a relationship with DNA banking centers in the VA for potential genomic studies.
  - Monitor ongoing research projects and opportunities for new projects.

#### **BASIC SCIENCE RESEACH**

#### **FY12 Progress and Accomplishments:**

- Virtual Seminar series done over conference call line: Presentations by Drs. Ransom, Rutecki, Spain, Tang, Wasterlain.
- Formulation of basic science agenda for future research presented at ICARE conference.

## FY13 Goals and Initiatives:

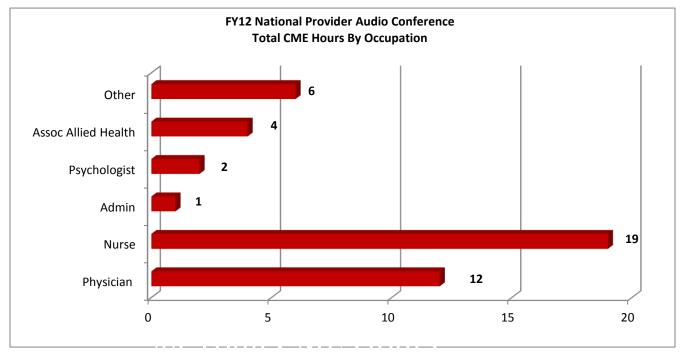
- Develop conference call series on models of posttraumatic epilepsy.
- Increase collaborative research.

#### **EDUCATION**

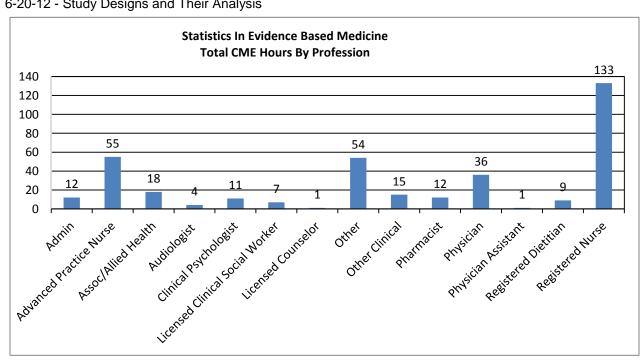
# **FY12 Progress and Accomplishments:**

- National Patient Education Audio Conferences
  - 1-5-12 Eilis Boudreau, MD, Portland VAMC "Epilepsy and Sleep" 87 VANTS
  - 4-5-12 Collette Evrard, NP, Portland VAMC "Epilepsy In The Geriatric Population" 26 VANTS
  - 7-12-12 Barry Gidal, PharmD, Madison VAMC "Epilepsy Medication" 23 VANTS
  - 9-6-12 Judy Ozuna, NP, Seattle VAMC "Medication Compliance" 14 VANTS

- National Provider CME Education Audio Conferences
  - 11-2-11 Claude Wasterlain, MD, LAVAMC "Treatment of Acute Seizures and Status Epilepticus" 27 VANTS
  - 3-7-12 Allan Krumholz. MD, Baltimore, VAMC "Intractable Seizures" 32 VANTS
  - 5-2-12 Olujimi Faminu, RN, LAVAMC "Safety in the Epilepsy Monitoring Unit" 33 VANTS



- 5-2-12 James Chen, MD, LAVAMC "Posttraumatic Epilepsy and Treatment" 41 VANTS
- 8-1-12 Hamada Hamid, DO, MPH, West Haven VAMC "Epilepsy and Depression" 25 VANTS
- "Statistics In Evidence Based Medicine" presented by Rizwana Rehman, PhD, Statistician, SE ECOE
  - 5-2-12 Identifying Statistical Spin in Research Papers
  - 5-9-12 Descriptive Statistics
  - 5-16-12 Graphical Representation of Data
  - 5-23-12 Vocabulary of Inferential Statistics
  - 5-30-12 Hypothesis Testing
  - 6-6-12 Research Questions for One Group
  - 6-13-12 Research Questions for Two Group
  - 6-20-12 Study Designs and Their Analysis



- Development of National ECoE promotional materials, including brochure, business cards, logo stickers, lapel pins, seizure first aid postcard, and national video.
- www.epilepsy.va.gov and national ECoE SharePoint portal.

## **FY13 Goals and Initiatives:**

- Completion and distribution of ECoE Patient Education QuickSeries Handbook.
- Neurology CME Symposium in March in San Diego, CA in conjunction with AAN.
- Support local/regional educational offering and collaborations with Epilepsy Foundation and University affiliates.

## **NURSING**

## **FY11 Progress and Accomplishments:**

- Production of nurse training video: "Safety in the Epilepsy Monitoring Unit" final version will be placed on the national TMS website
- Finalized Nurse Competency Checklist for the epilepsy monitoring unit (EMU)
- Developed draft of LPN/CNA Competency Checklist for the EMU

#### **FY12 Goals and Initiatives:**

- Develop nurse training videos for
  - a. Special situations: intracranial electrodes, postictal psychosis
  - b. What not to do in caring for patients having seizures in the EMU (examples from real situations)
- Develop a standard EMU consent form
- Nursing Workgroup leader to participate in ECoE Directors National Meeting.
- ECoE Nursing Meeting in conjunction with the American Association of Neuroscience Nurse Annual Meeting.

## **EEG TECHNOLOGISTS**

#### **FY12 Progress and Accomplishments:**

- Implementation of bi-monthly conference calls.
- Review and analysis of Non-ether collodion.
- Review and assessment of disposable electrodes.
- 2nd annual national face-to-face meeting.
- Education and marketing Booth at ASET.

#### **FY13 Goals and Initiatives:**

- SharePoint folder for continuous communication and sharing of documents.
- Review Policies and Procedures for standardizations (specifically those related to safety).
- Proposal for disposable electrodes.
- 2013 Networking and marketing booth at ASET.
- EEG Technologists Workgroup leader to participate in ECoE Directors National Meeting.

# PHARMACOTHERAPY

#### **FY13 Goals and Initiatives:**

- Form Workgroup with Dr. Aatif Husain to Chair.
- Utilize VA doctors input for drug reaction.
- Develop Indication for use guidelines (new onset, women, elderly)



# **PUBLICATIONS / MANUSCRIPTS / CHAPTERS**

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# **ABSTRACTS / POSTERS / PRESENTATIONS**

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Krumholz A. "My First 40 Years in Neurology: Lessons Learned." Special Lecture for Resident Graduation Dinner, Baltimore, MD; 2012. Sanchez A. "Sleep studies" video segment for VAMHCS broadcast on local cable channel, 2011.

Sanchez A, Krumholz A, Hopp J. "Acute Clinical and EEG Responses to Intravenous Benzodiazepines Predict Subsequent Outcomes in Suspected Nonconvulsive Status Epilepticus." International League Against Epilepsy. Sept 2011 Published as an abstract in Epilepsia.

Krumholz A. "Status Epilepticus Update." University of Maryland Department of Neurology Annual Town Gown Conference, Baltimore, MD; June, 2012.

Krumholz A. "When Posttraumatic Epilepsy Becomes Intractable" Hans Berger Symposium, Virginia Commonwealth University Medical School, Richmond, VA; May 2012.

#### Durham, NC

AES Poster authored by Schooff & Hegermiller-Smith, Differences in Psychiatric co-morbidities between Epileptic and Non-epileptic Seizures Among the Veteran Population: A study conducted at the Durham VA.

#### Houston, TX

Abuelem T, Agashi S, Friedman DS, Yoshor D: Interhemispheric Subdural Electrodes (IHSE): Utility, Technique and Safety; Annual Meeting of the Congress of Neurological Surgeons, October 2011, Washington, D.C.

Haneef, Z. Stimulation of Human Entorhinal Area Enhances Memory and Resets Hippocampal Theta. Annual meeting of the Society for Neuroscience. November 2011, Washington DC.

Livesay, S., Bershad, E., Suarez, J., Hrachovy, R.A., Manian, P., Herlihy, P., Meade, A. Cushman, L., Hunt, Y. Clinical Utility of Continuous Electroencephalogram (CEEG). Monitoring in Hypothermia after Cardiac Arrest Neurocritical Care (2011) 15:S42.

Poostizadeh MJ, Agadi S, Yoshor D, Wilfong AA; Epilepsy Surgery In Children With Coagulation Disorders; Annual Meeting of the American Epilepsy Society, December 2011, Baltimore, MD.

Patil V, Agadi S, Yoshor D, Curry D, Brewster A, Bhattacharjee M, Adesina A, Wilfong A, Riviello J, Quach M, Malphrus A, Owens J, Masters L, Hunter J, Chapeski L, Swann J, Anderson A; ERK And mTor Pathway Activation And Interaction In Cortical Dysplasia And Epilepsy; Annual Meeting of the American Epilepsy Society, December 2011, Baltimore, MD.

Agadi S, Tsoi H, Curry D, Yoshor D, Riviello J: An Inverted Subgaleal Reference And Ground Recording Electrode Method For Electrocorticography: An Alternative To The Standard Surface And Ground Electrode Method; Annual Meeting of the American Epilepsy Society, December 2011, Baltimore, MD.

Chapieski, et al. Collins, R.L. Does Memory Test Performance Have Localizing Significance in Pediatric Epilepsy? Presentation at the 65th Annual Meeting of the American Epilepsy Society in Baltimore, MD. (December 2011).

Izadyar S, Franks R, Chen DK, and Hrachovy RA. Intact vs. Impaired Ictal Sensorium: Does it Affect Outcome of Psychogenic Non-Epileptic Events Following Disclosure of Diagnosis. Poster presented at the 65th American Epilepsy Society meeting in Baltimore, MD. (December 2011).

Collins RL, Wisdom NM, Sestito N, Chen DK. Use of the Health Attitude Survey (HAS) to Detect Patients Experiencing Psychogenic Non-Epileptic Events (PNEE) on a Long-Term Monitoring Unit. Poster presented at the Annual Meeting of the International Neuropsychological Society (2012 February), Montreal.

Haneef, Z. Functional Connectivity MRI Asymmetries in Lateralized Temporal Lobe Epilepsy. American Academy of Neurology (AAN) Annual meeting in New Orleans, April 2012. Also selected for highlights presentation sessions in Neuroimaging and in Epilepsy.

Yoshor, D. The Role of Surgical Ablation, Radiosurgery, and Neuromodulation in the Treatment of Epilepsy. Invited Speaker. Annual Meeting of the Congress Neurological Surgeons, Chicago. \_Scheduled for October 9, 2012.

Pacheco, V.H., Cherian, V., Izadyar, S., Hrachovy, R.A. Can EEG Sampling be Used as an Effective Tool for Detecting Clinically Significant Seizures? J. Clin Neurophysiol. In Press.

#### Los Angeles, CA

Wasterlain CG, Thompson KW, Suchomelova L, Niquet J. Energy metabolism during neonatal seizures. 44th Winter Conference on Brain Research, 2011.

Wasterlain CG3, Baldwin RA, Naylor DE, Thompson KW, Suchomelova L, Niquet J, Rational polytherapy in the treatment of acute seizures and status epilepticus. Proc. Colloquium on Status Epilepticus, Oxford, 2011.

Wasterlain CG. Trafficking of glutamate receptors during status epilepticus Proc. European Winter Conference on Brain Research, 31:S11, 2011.

Wasterlain CG, Baldwin RA, Suchomelova L, Niquet J. Mono-versus polytherapy in the treatment of status epilepticus. Epilepsia 2011.

Wasterlain CG, Baldwin RA, Niquet J, Suchomelova L, Ratronale for polytherapy im the treatment of status epilepticus. WFN Abstracts, 73.74, 2011.

Wasterlain CG, Baldwin RA, Suchomelova L, Niquet J. Treatment of status epilepticus: mono- or polytherapy? Neurology 2012.

Wasterlain CG, Baldwin RA, Naylor D, Thompson KW, Suchomelova L, Niquet J. Mono-versus polytherapy in the treatment of status epilepticus. Epilepsia, in press.

Wasterlain CG, Baldwin RA, Naylor DE, Thompson KW, Suchomelova L, Niquet J. Mono- or polytherapy in the treatment of acute seizures and status epilepticus. 45th Winter Conference on Brain Research, 2012.

Baldwin RA, Niquet J, Suchomelova L. Treatment of Status Epilepticus: Mono- or Polytherapy? (P06.094) Neurology. 78:P06.094, 2012.

Huy Tran, JWY Chen (2011) Using Independent Component Analysis of EEG to Quantify Treatment Effect of Anticonvulsants, American Academy of Neurology 2011 Annual Meeting, Honolulu, Abstr.

M Lee, JWY Chen (2011) Ambulatory but Refractory Complex Partial Status Epilepticus, American Clinical Neurophysiology Society 2011 Annual Meeting, New Orleans, Abstr.

V Shvarts, JWY Chen (2011), American Clinical Neurophysiology Society 2011 Annual Meeting, New Orleans, Abstr.

Baca CB, Vickrey BG, Vassar S, Berg A. The association of current and remote seizure burden with quality of life in children with epilepsy. Accepted to American Epilepsy Society Annual Meeting, December 2-6, 2011.

Chen LL, Choe J, Baca CB, Chen J, Cheng E. Characteristics of Operation Iraqi Freedom/Operation Enduring Freedom veterans with head trauma and post-traumatic seizures (accepted to American Epilepsy Society Annual Meeting, December 2-6, 2011.

# Madison, WI

Y. Z. PAN; P. A. RUTECKI Transient group I metabotropic glutamate receptor activation causes long-lasting changes in CA3 synaptic network activity. Soc. Neurosci., 2011.

R. A. PIZARRO1, V. A. NAI, R. HOLDSWORTH, E. TUNNEL, P. RUTECKI, K. SILLAY, B. MEYERAND, V. PRABHAKARAN Default mode network differences in epilepsy patients and healthy volunteers using independent component analysis. Soc. Neurosci., 2011.

EMU Safety Presentation for ECoE, Ronda Tschumper, EEG Technologist, ASET conference at St. Paul, MN, August 1, 2012.

ECoE Booth/Poster Board Presentation, Ronda Tschumper, EEG Technologist, ASET conference at St. Paul, MN, August 2-3, 2012.

#### <u>Miami, FL</u>

Diamond JA, Lopez MR, Carlho DZ, Chen JY, Wallace DM. Insomnia Complains in a veteran epilepsy clinic. Presented at annual AASM meeting 2012.

#### Portland, OR

Salinsky MC, Evrard C. Psychogenic Seizures in Veterans: Psychiatric diagnoses. 2011 meeting of the American Epilepsy Society, Baltimore, Maryland (poster).

Ionita R, Cameron MH, Boudreau E, Vingara L. Fatigue, Mechanisms Underlying Imbalance and Falls in Multiple Sclerosis. Sleep 2012 Meeting, June 11th, Boston, MA. (poster).

#### Richmond, VA

2/3/2012 National Polytrauma Grand Rounds 'The Role of the ECOE with the National Polytrauma Center' -Heather Hodges, RN.

3/2/2012 National Polytrauma Grand Rounds 'Neurological Sequelae of Traumatic Brain Injury' - Alan Towne, MD.

5/22/2012 Hans Berger Symposium 'TBI and Epilepsy' - Alan Towne, MD.

5/22/2012 Hans Berger Symposium 'Creating an Epilepsy Center of Excellence' Heather Hodges, RN.

5/22/2012 Hans Berger Symposium 'EEG Pattern Recognition-Self Assessment' Elizabeth Waterhouse, MD.

6/27/2012 National Institute of Neurological Disorders and Stroke (NINDS) 'Post-Traumatic Epilepsy Research' Alan Towne, MD.

S. N. Gowda, S. J. Borad, L. D. Morton, L. Kernitsky, S. A. Vota, A. R. Towne, R Delorenzo . Significance of elevated troponins in patients with status epilepticus. Epilepsia, 2011, Vol. 12 (1).

Neurological Sequelae of Traumatic Brain Injury, American Epilepsy Society Meeting, Baltimore, MD, December 7, 2011. Alan Towne, MD.

Clinical Semiology and Classification. Department of Neurology, Clinical Neurophysiology Lecture Series, VCU Medical Center. 8/23/12.

Clinical Semiology and Classification. Department of Neurology, Clinical Neurophysiology Lecture Series, VCU Medical Center. 8/7/12 Elizabeth Waterhouse, MD.

Clinical Semiology and Classification. Department of Neurology, Clinical Neurophysiology Lecture Series, VCU Medical Center. 7/12/12 Elizabeth Waterhouse, MD.

The Evaluation and Management of Headache Disorders, M-2 Neuroscience Course, VCU School of Medicine. 5/2/12 Elizabeth Waterhouse, MD EEG Montages and Localization, Department of Neurology, Clinical Neurophysiology Lecture Series, VCU Medical Center. 10/31/12 Elizabeth Waterhouse, MD.

Ham C. Waterhouse E. Treatment approaches in non-convulsive status epilepticus. Presented at the American Academy of Neurology Annual Meeting, New Orleans, LA. Neurology 78 (suppl 1) April, 2012.

Ham C. Waterhouse E. Treatment approaches in non-convulsive status epilepticus. American Clinical Neurophysiology Society Annual Meeting, San Antonio, TX, February, 2012.

### San Antonio, TX

Pugh MJ, Amuan ME The Nexus of TBI and Epilepsy in Veterans from Afghanistan and Iraq. Paper presented at the 2012 American Academy of Neurology Annual Meeting, New Orleans, LA. April 24, 2012.

Pugh MJ, Amuan ME The Nexus of TBI and Epilepsy in Veterans from the Afghanistan and Iraq Wars. Paper presented at the VA Health Services Research and Development Research Conference, National Harbor, MD. July 18, 2012.

Pugh MJ, Finley EP, Copeland LA, Noel PH, Pugh JA. Complex Comorbidity Clusters in Veterans from the Afghanistan and Iraq Wars. Paper presented at the VA Health Services Research and Development Research Conference, National Harbor, MD. July 19, 2012

A. Velez, L. Morgan, K. Karkar, E. Gherman, J. Cavazos, C. A. Szabo. Does Treatment of Depression Before Neurosurgical Intervention For Epilepsy, Improves Surgical Outcome? Epilepsy Currents, 2012 Suppl. 1. Poster presented at the American Epilepsy Society Annual Meeting, December 1-5, 2011, Baltimore, MD.

- J. E. Cavazos, S. Jaime, G. P. Tolstykh. Increased Interconnectivity between Hippocampal Lamellas induced by Seizure-induced Sprouting leads to Circuitry Hyperexcitability in Experimental Temporal Lobe Epilepsy. Epilepsy Currents, 2012 Suppl. 1. Poster presented at the American Epilepsy Society Annual Meeting, December 1-5, 2011, Baltimore, MD.
- J. R. Labault, G. M. Jetter, L. M. Moreno, S. Rogers, , W. Gentry, , S. Carlson, , S. Lee, J. M. Bruder, J. E. Cavazos. Update on a Cohort: Changes in Vitamin D Levels Associated with Enzyme-Inducing AEDs in Male Epilepsy Patients. Epilepsy Currents, 2012 Suppl. 1. Poster presented at the American Epilepsy Society Annual Meeting, December 1-5, 2011, Baltimore, MD.
- G. M. Jetter, L. A. Birnbaum, , E. Ntsoane, J. E. Cavazos, K. Karkar, L. Morgan, J. L. Caron, A. M. Papanastassiou, C. A. Szabo. Fetal PCAs in Medically Refractory Partial Epilepsies. Epilepsy Currents, 2012 Suppl. 1. Poster presented at the American Epilepsy Society Annual Meeting, December 1-5, 2011, Baltimore, MD.

S. Jaime, J. E. Cavazos, G. Tolstykh. Neuronal loss in the NTS induced by KA induced Status Epilepticus Rats while sparing other Brainstem Nuclei – Predisposition to SUDEP. Epilepsy Currents, 2012 Suppl. 1. Poster presented at the American Epilepsy Society Annual Meeting, December 1-5, 2011, Baltimore, MD.

#### San Francisco, CA

ISMRM 2012, Melbourne, Australia: Mueller SG, Young K, Weiner MW, Laxer KD. Evidence for typical and atypical gray and white matter pathology in frontal lobe epilepsy and different types of temporal lobe epilepsy. Abstract.

September 2012. ILAE 10th European Congress on Epileptology, London, UK. "Addressing the Treatment Gap in Underserved Populations." Parko K. Invited speaker.

June 2012. NINDS: Interagency Collaborative to Advance Research in Epilepsy (iCARE). Parko K. Post-traumatic Epilepsy Research within the VA and DoD, Program Chair

March 2012. American College of Health Care Executives (GHATP VA poster fair). Establishing clinical video Telehealth in neurology special programs. J. Andrew David. Poster.

Nov 2011. California Pacific Medical Center Patient Conference. Living well with epilepsy: Elderly Issues. Garga N. Invited speaker and moderator.

June 2011. Institute of Medicine of the National Academies: Committee on Public Health Dimensions of the Epilepsies: Workshop on Quality, Access, and Education for the Epilepsies. Parko K. Invited speaker and panel member.

#### Seattle, WA

Ransom CB, Ye ZC, Lam P, Richerson GB. Modulation of tonic GABA currents by connexin hemichannel blockers. Winter Conference on Brain Research, Keystone, CO, 2011.

Ransom CB. TBI, epilepsy, and the VA. Behavioral Aspects of Neurological Disease Conference, Sun Valley, ID, 2011.

Ransom CB, Wu Y, Richerson GB. Rapid regulation of tonic GABA currents in hippocampal neurons, Society for Neuroscience, Washington D.C., 2011.

Ronich L, Perkins D. Remote access of EEG data via VA citrix farm. Northwest ECoE Regional directors meeting. VA Puget Sound, 4/2011.

Ransom CB. Rapid regulation of tonic GABA currents in hippocampal neurons. UAB Neuroscience Day Keynote address, Birmingham, AL. 2/15/2012.

#### **Southeast Region**

Presented National ECoE/ SE update to Principal Deputy Undersecretary in January 2012.

Presented SE ECoE update to Southeast Region Chief Medical Officers.

#### West Haven, CT

"Neuropsychiatric Symptoms, Seizure Severity, Employment, and Quality of Life of Jordanians With Epilepsy" American Epilepsy Society, Baltimore, MD, December, 2011.

# **RESEARCH**

# **ECoE Collaborative Research Projects Funded (shown highlighted in table):**

- RECORD (Mary Jo Pugh, PI)
   Quiet Indicators (Mary Jo Pugh, PI)
   Psychogenic Seizures (Martin Salinsky, PI)

	EPILEPSY CENTERS OF EXCELLENCE - RESEARCH					
VA Site City	Principle Investigators Last, First, MI	Grant/Study Title	Project Start Date mm/dd/yyyy	Project End Date mm/dd/yyyy	Name of Funding Source	
Baltimore	Krumholz, Allan; Barry, Elizabeth - Co- Investigators	A double-blind randomized clinical trial of the efficacy of IM midazolam versus IV lorazepam in the pre-hospital treatment of status epilepticus by paramedics (RAMPART)	October-09	present	Multicenter NIH	
Baltimore	Krumholz, Allan - Co- Investigator	"A historical-controlled, multicenter, double-blind, randomized trial to access the efficacy and safety of conversion to lacosamide 400mg/day monotherapy in subjects with partial-onset seizures."	2009			
Baltimore	Krumholz, Allan - Co- Investigator	"A multicenter, open-label extension trial to access the long-term use of lacosamide monotherapy and safety of lacosamide monotherapy and adjunctive therapy in subjects with partial-onset seizures."	2009			
Baltimore	Krumholz, Allan - Co- Investigator	"Progesterone therapy for women with epilepsy"	2009		Multicenter NIH protocol	
Baltimore	Krumholz, Allan - Co- Investigator	"Psychosocial Status and Health Related Outcomes in Patients with Psychogenic Seizures Compared with Psychogenic Movement Disorders",			Collaborative project involving University of Maryland Epilepsy Center and Movement Disorders Center, Department of Neurology.	
Baltimore	Barry, Elizabeth - Co-PI	"Pharmacokinetic Studies of Epileptic Drugs: Evaluation of Brand and Generic Antiepileptic Drug Products in Patients"	September-10	Sept 2013	DHHS/FDA/OAGS/DCG M	
Baltimore	Tang, Cha- Min - PI	"Injury Induced Neuronal Hyperexcitability" To better understand how deafferentation result in dendritic hyperexcitability and post-traumatic epilepsy	June-08	May-12	VA Merit Review	
Baltimore	Tang, Cha- Min - Co- Investigator	"Pre- and Postsynaptic Consequences of Traumatic CNS Injury" To provide techical assistance in the optical aspects of this project (i.e. photolysis and imaging)	December-07	Nov-12	NINDS RO1	
Baltimore	Tang, Cha- Min - PI	"A computer vision system for the blind veteran" To develop a computer vision system for the blind	April-09	Mar-12	VA RR&D	
Durham	Everhart, Amanda D; Schooff, David M.	Prevalence and Predictors of PNES among Women in a US Veterans Affairs Population	6/2012		N/A	

Durham	Rehman, Rizwana, Everhart, Amanda D., Schooff, David, M., Husain, Aatif M. & Kelly, Pamela R.	Trends Among VA Medical Center Providers for utilization of <b>ICD-</b> 09-CM 780.39	10/2012 (tentative)		Pending IRB approval
Houston	Haneef, Zulfi Principal Investigator	Lateralization of TLE using fcMRI and DTI	01/01/2012	12/31/2012	Epilepsy Foundation of America (Research Grants Program)
Houston	Hrachovy, Richard Co- Investigator	Mission Connect Mild TBI Translational Research Consortium (DAMD W81XWH-08-2- 014)	09/01/2008	08/31/2013	US Army Medical Research and Materiel Command (USAMRMC), Office of the Congressionally Directed Medical Research Programs (CDMRP)
Houston	Hrachovy, Richard Co- Investigator	Infantile Spasms: Tools for Therapies (1 R21 NS062992-01A1)	02/01/2010	01/31/2013 (no cost extension)	National Institute of Neurological Disorders and Stroke
Houston	Yoshor, Daniel Principal Investigator	Neural Mechanisms of Rapid Recognition in Human Ventral Temporal Cortex	10/01/2010	09/30/2013	VA Merit Review Award
Houston	Yoshor, Daniel Co- Investigator	Responsive Neurostimulator System (RNS) Clinical Investigation	12/01/2005	11/30/2014	Neuropace Corporation
Los Angeles	Claude Wasterlain, Principle Investigator	Neurochemistry of Epilepsy	04/01/09	03/31/13	VA Merit Review
Los Angeles	Claude Wasterlain, Principle Investigator	Rational polytherapy in the treatment of cholinergic seizures	07/01/2011	06/30/2016	NIH1 UO1 NS074926- 01
Los Angeles	Claude Wasterlain, Principle Investigator	Rational polytherapy in the treatment of cholinergic seizures: additional candidates	07/01/12	08/31/13	3UO1 NS074926-01S1
Los Angeles	Antonio Delgado Escueta, Principle Investigator	Persisting Grand Mal and Myoclinic Seizures in JME	2007	2012	VA Merit Review
Los Angeles	Antonio Delgado Escueta, Principle Investigator	Discovering more Juvenile Myoclonic Epilepsy Genes by a Consortium	2010	2015	NIH, 5R01NS055057
Los Angeles	Christine Baca, Co- investigator	"Long-term outcomes of childgoohd-onset epilepsy"	6/1/2011	5/1/2014	NIH
Los Angeles	Christine Baca, Principle- investigator	"Risk factors for delayed pediatric resective epilepsy surgery over time"	7/1/2011	6/1/2012	Epilepsy Foundation of America Targated Research Initiative for Youth Grant
Madison	Rutecki, Paul	Group I metabotropic glutamate receptors and epileptogenesis	10/1/2009	9/30/2013	VA research

Madison	Rutecki, Paul	Traumatic Brain Injury and Posttraumatic Epilepsy: A Prospective Study	1/1/2011	9/30/12	American Epilepsy Society and Epilepsy Foundation
Madison	Rutecki, Paul (Co-PI)	Prediction, Detection, and Prevention of epilepsy and PTSD in genetically susceptible rats	7/1/2010	8/30/2012	DoD
Madison	Rutecki, Paul (Co-PI)	Psychogenic Non-epileptic Seizures in U.S. Veterans	10/1/2012	9/30/2016	VA Research
Madison	Rutecki, Paul	Responsive Neurostimulation Study	1/1/2008	1/1/2033 (ongoing open observation)	Neuropace
Miami	Lopez, Maria R, MD	Insomnia complaints in a veteran epilepsy clinic population	11/23/2011	5/10/12	No funding
Portland	Salinsky, Martin C.	Psychogenic Non-epileptic Seizures in U.S. Veterans (multi-site study with Madison WI. And San Francisco AA.; Portland is the coordinating center)	Tentative start date of 11/1/2012	10/30/2016	VA Merit Review
Portland	Salinsky, Martin C.	Characteristic of Veterans with Psychogenic Non-epileptic Seizures	9/3/2009	In progress	Unfunded research
Richmond	Towne, Alan	Rapid Anti-Epileptic Medication Prior to Arrival Trial (RAMPART) Neurological Emergencies Treatment Trials (NETT) Network Clinical Site Hubs	07/01/2008	12/30/2012	NIH
Richmond	Towne, Alan	Neurological Emergencies Treatment Trials (NETT) Network Clinical Site Hubs	07/01/2008	ongoing	NIH
Richmond	Towne, Alan	A pilot and feasibility study: Seizure Monitoring for Veterans from the OEF/OIF cohort with a history of Blast- Associated mild TBI	10/1/2012	TBD	unfunded
Richmond	Towne, Alan	A Randomized, Double Blind, Parallel, Placebo-Controlled Multicenter Study, with Optional Open-Label Continuation, of the Efficacy and Safety of Vanquixtm Auto-Injector (Diazepam Injection) for the Management of Selected, Refractory, Patients with Epilepsy who Require Intermittent Medical Intervention to Control Episodes of Acute Repetitive Seizures	10/1/07	ongoing	Pfizer
San Antonio	Pugh, Mary Jo	Identifying and Validating Complex Comorbidity Clusters in OEF/OIF Veterans	10/1/2010	9/30/2014	VA HSR&D
San Antonio	Pugh, Mary Jo	Developing Quality Indicators for Epilepsy Treatment in the VA: QUIET VA	07/01/2010	06/30/2011	VA HSR&D
San Antonio	Pugh, Mary Jo	Restructuring Epilepsy Care: Organizational Dynamics and Quality: RECORD Quality	05/01/2012	04/30/2016	VA HSR&D
San Antonio	Cavazos, Jose E Principal Investigator	A Retrospective, Prospective Study of How AEDs Impact Bone Health in Men	2004	present	U Texas Dept. Neurology
San Antonio	Cavazos, Jose E Principal Investigator	Effects of CYP450 – Inducing AEDs on Cholesterol Levels in Patients on Statin Therapy for Hyperlipidemia	2005	present	U Texas Dept. Neurology
San Antonio	Cavazos, Jose E Co- Principal Investigator	Efficacy of Certain Dual Therapy Combinations of Anti-epileptic drugs (AEDs) in Patients with Epilepsy	2006	present	U Texas Dept. Neurology
San Antonio	Cavazos, Jose E Principal Investigator	Pharmacogenomics of Hepatic Metabolism in Elderly Patients with Epilepsy	2006	present	U Texas Dept. Neurology

San Antonio	Cavazos,	Hippocampal Neuronal Injury after Status	Jan.2005	present	U Texas Dept.
	Jose E Principal Investigator	Epilepticus during Development			Neurology
San Antonio	Cavazos, Jose E Principal Investigator	Seizure-induced Synaptic Reorganization in CA1 Projection to Subiculum	Sep.2008	Sep. 2011	VA Merit Award
San Antonio	Cavazos, Jose E Co- Principal Investigator	BK Channel B4 Subunit in the Dentate Gyrus and Seizures	Apr.2007	Mar. 2013	NIH - R-01 NS052574
San Antonio	Cavazos, Jose E Co- Principal Investigator	KCNQ K+ channels in NTS region of brainstem that control cardiovascular function	Jul.2008	present	AHA award South Central (funding ended 06/10)/U. Texas Dept. Neurology
San Francisco	Hixson, John D	the POEM study: Policy for Optimized Epilepsy Management	03/01/2012		UCB Pharma
San Francisco (pending)	Kuzniecky, Ruben, Lowenstein, Daniel, and French, Jacqueline	Human Epilepsy Project	08/01/2012	08/01/2017	Epilepsy Study Consortium
San Francisco	Laxer, Kenneth	HIGH FIELD NEUROIMAGING OF EPILEPSY	07/01/2009	06/30/2012	NIH, 5R01NS031966-15
San Francisco	Mueller, Susanne	Role of Thalamic GABA in Seizure Control in Temporal Lobe Epilepsy	10/1/2009	5/1/2011	DOD
San Francisco	Parko, Karen	Psychogenic Non-epileptic seizures in U.S. Veterans	8/12/2012	8/12/2016	Merit Review Award: Department of Veterans Affairs
San Francisco	Parko, Karen	Specialty Care Access Networks—Extension for Community Healthcare Outcomes (SCAN-ECHO), VISN 21 Epilepsy Disease State	5/1/2012		National VA Program Grant
Seattle	Ransom, C	CDA-2; GABA transporter type 1: function in epilepsy.	01/01/2012	12/31/2014	VA Career Development
Seattle	Spain, W	Merit Review; Mechanisms of synaptic integration in central neurons.	04/01/2009	03/31/2013	VA Merit Review
Seattle	Spain, W, PI of subcontract (Overall PI, Foehring, RC)	R01 NS44163-09; Slowly inactivating K+ channels in neocortical pyramidal neurons.	07/01/2012	6/30/17	NINDS
West Haven	Hamid, Hamada	Neurocircuitry of Depression in Temporal Lobe Epilepsy	07/01/2012	06/30/2013	Epilepsy Foundation
West Haven	Delanerolle, Nihal	Magnetic Resonance Imaging and Spectroscopy of Neurologic and Psychiatric Disorder-Preventing Explosive Neurotrauma II	05/1/11	3/30/12	U.S. Department of Defense Office of Naval Research

# NATIONAL ADVISORY COMMITTEE

Report from first meeting of ECoE National Advisory Board (NAB) on December 1, 2011

The meeting lasted from 4 to 9 PM.

#### 1) Attending

Marc Dichter (Chair), Robert Ruff, Richard Matson, John Booss, Susan Axelrod, Jamie B Grimes, Steven Nardizzi, Robert J. Gumnit, Ramon Diaz-Arrastia, Mill Etienne. Glenn Graham, Raiiv Jain, Rawn Sahai, Brien Smith Kathy Torice, Sandy Finucane, Mary Jo Pugh

- 2) The NAB met in closed session initially to review the written report and discuss accomplishments and any possible problems with the annual report. This was the first formal meeting of the NAB. The NAB also discussed its "mission" with regard to the new Epilepsy Centers of Excellence program established by the VA. The program was begun in 2008 and was funded for four years. The committee saw its role as helping evaluate the progress made by the ECoEs and helping to integrate the program on a national level. The NAB could help identify those areas most successful and encourage the adoption of these by all of the ECoEs. The NAB could also help identify problem areas in one or another of the ECoEs that could be remedied and could serve as important cautionary learning exercises for all the other groups. The NAB also felt it could serve in advocacy role for continued funding if the evaluation demonstrated significant value for the program to date.
- 3) There were no major issues raised by members of the NAB based on the distributed Annual Report. The NAB emphasized the issue of reaching veterans with epilepsy who were not traditionally served within the existing epilepsy centers for a variety of reasons who would potentially have significantly increased access to state-of-the-art epilepsy care. This involved multiple issues including access to the ECoEs from remote areas, the increasing use of TeleMedicine to reach outlying areas where veterans could not travel from conveniently, or at all, educational programs for specialists, general physicians, nurses, physician extenders, and other professionals, educational programs for veterans and their families using a variety of techniques (e.g. lectures, website information, video presentations, brochures, etc) and overcoming any traditional barriers to smooth referrals and patient transfers.
- 4) The NAB evaluated a series of verbal reports by chairs of multiple working groups established within the ECoEs. These covered all the major activities developed within the ECoEs since their inception in 2009. The NAB was very impressed at all the progress that had been made in each of these areas, especially given the usual "start up time" issues involved in a new national program and the need to integrated VA units from all over the country. Specifically, the leadership under Dr. Karen Parko and National Administrative Director, Ryan Reiger, as well as the Executive Committee, made up of one senior leader from each of the four regions, appeared to be functioning very well. This group had identified several major areas that required immediate attention and had established working groups to deal with each.
- 5) Integration from individual regional centers to a coherent national program had been accomplished.
- 6) Active educational programs for physicians, physician extenders, the veterans and their families had been established utilizing multiple modalities and were already reaching significant numbers of their intended recipients
- 7) Outreach programs to VA centers without specific epilepsy expertise were established and implemented.
- 8) Telemedicine was beginning to be utilized in very effective ways.
- 9) A very sophisticated epilepsy patient input template was developed and formally evaluated that will facilitate patient care and at the same time permit patient oriented research to be conducted to develop methods of enhancing care for veterans with epilepsy. This is a remarkable accomplishment as the field (in the private sector) has been trying to develop this kind of input template/database for many years without success.
- 10) Clinical research has already been initiated with several projects focusing on evaluating the care provided to veterans with epilepsy, both in the elderly population and in the veterans returning from the Gulf wars.
- 11) Integration with polytrauma centers is proceeding, although at perhaps a slightly slower pace than had been anticipated. This was noted and is being addressed.
- 12) The connection between traumatic brain injury, PTSD, and post-traumatic epilepsy is being explored and is likely to be an important area of medical advance pioneered by the VA and the ECoEs in the near future.
- 13) In summary, the ECoE National Advisory Board was very favorably impressed by the progress already being made in essentially one and one half years. No major problems were identified. The NAB did note that a lack of sufficient funds for the ECoEs likely interferes with their ability to carry out all that they are capable of with regard to integrating care for all veterans with epilepsy and for significantly improving access to specialized care, education, and research. It can already be demonstrated that veterans with epilepsy have easier access to specialized care and are receiving better care. Some internal VA administrative barriers with regard to smooth movement of veterans from outlying VAHs to the Epilepsy Centers will hopefully be reduced over the next year. Programs presented indicate that the ECoEs are on a trajectory to even more significantly improve access and care and hold the promise for important clinical advances in epilepsy treatment. Once the new epilepsy template and database are fully developed and implemented, they may become models for similar instruments throughout the private sector as well. At the end of the meeting the NAB congratulated the leaders of the ECoEs on their excellent accomplishments and outstanding progress to date and indicted strongly the need for continued funding of these centers beyond the initial four year congressional initiative.

# SOUTHWEST REGION ADVISORY COMMITTEE

ECoE Southwest Regional Advisory Committee Conference Call Monday, December 19, 2011, 1:00-2:00pm PST 1.800.767.1750 Access Code 79890#

# Members:

⊠Claude Wasterlain, MD, Director, ECoE SW Regional Director, West Los Angeles	Nina Garga, MD, ECOE San Francisco Director, San Francisco, Ca
	☐ Larry Davis, MD, ECOE Albuquerque Director, Albuquerque, NM
⊠Karen Parko, MD, ECoE National Director, San Francisco, Ca	☑Timothy Tilt , San Antonio, Ca
⊠Ryan Rieger, ECoE National Administrative Director, San Francisco, Ca	
	⊠Mr. James Zapata, Houston, Tx
⊠Richard Hrachovy, MD, ECoE Houston Director, Houston, Tx	☐Robert Fisher, MD, Stanford, Ca
⊠Kolar Murthy, MD, Clinical Professor Neurology and Pediatrics Thousand Oaks, Ca	Susan Pietsch, MPH, Director, Epilepsy Foundation Los Angeles and Orange Counties
□ James Althouse, Sonora, Ca	☐ Eli Mizrahi, MD, Chairman, Department of Neurology Baylor College of Medicine, Houston, Tx
☑Daniel Lowenstein, MD, UCSF Director of Epilepsy Center, San Francisco, Ca	□Jose Cavazos, MD, ECOE San Antonio Director San Antonio, Tx

Present ⊠ Absent/Excused □

Agenda Item / Topic	Discussion/Conclusion/Recommendation	Action / Follow-up
1. Introductions / Welcome	-Dr. Claude G. Wasterlain asked each of the Advisory Board Members to introduce themselvesDr. Dan Lowenstein, Director of the Comprehensive Epilepsy Center at UCSF, works closely with Dr. Parko and San Francisco VADr. Jerome Engel, Director of the UCLA Comprehensive Epilepsy Center -Mr. James Althouse, formerly a 100% disabled veteran, after several epilepsy surgeries, he now has his own business as a construction contractor -Mr. James Zapata, 100% disabled veteran, has cluster seizures when sleeping. He has received a vagal nerve stimulator -Mr. Timothy Tilt was in the Air force when he started having seizures. He is an epilepsy advocate for UCBDr. Kolar Murthy is a neurologist in private practice and a clinical professor at the VA Wadsworth/UCLA for over 30 years. "I have quite of few patients with epilepsy." -Dr. Kameel Karkar, Epileptologist, San Antonio, Texas	N/A
2. Purpose of Advisory Board	- Dr. Wasterlain, The ECoE Advisory Board Committee is made of Epilepsy experts, Epilepsy advocates and Veterans with Epilepsy. The functions of the Board are to: 1) evaluate the job of ECoE 2) to educate Veterans and reach out to doctors and nurses 3) advocate for the Epilepsy Center of Excellence.	N/A
3. National Introduction and Update	-Dr. Parko, I am the National Director of the ECoE and Ryan Rieger is the National Administrative Director. I work closely with National representatives (Dr. Robert Ruff, National Director for Neurology and VACO) on ECoE policies. We are funded through 2013. We will resubmit for program funding, need support and advocacy for this program to continue.  -There are sixteen (16) centers linked to polytruma centers and linked to academic center, geographically distributed. The southwest region includes Albuquerque, San Antonio, San Francisco, Houston and Los Angeles. The centers have a fellowship program and research training.  -The goal of the ECoE is to improve the health and well being of Veteran patients with epilepsy and other seizures disorders through the integration of clinical care, research and education.	N/A

Agenda Item / Topic	Discussion/Conclusion/Recommendation	Action / Follow-up
4. Updates from Centers	-Dr. Wasterlain requested each SW site directors to give brief descriptions of the ECoE program they head, except for Dr. Larry Davis who was excused.  -Dr. James Chen, Director, ECoE Greater Los Angeles. We opened the center with new equipment and offer comprehensive phase I and phase II with invasive electrodes, as well as phase III surgery. In the future we plan to add deep brain stimulation when approved by FDA. We contract for functional MRI and magnetoencephalography. We have a very active fellowship program and NIH – and VA-funded research.  -Dr. Nina Garga, I have assumed the role of Director of the San Francisco ECoE, working directly with Dr. Mark and Dr. Parko. We have increased equipment and beds. Outreach education on site on epilepsy, telehealth for remote care to Ukiah, Eureka, and Sacramento, San Francisco with the homeless veterans.  -Dr. Kameel Karkar, the San Antonio Polytrauma Center is completed. We are finally getting equipment. We have 3 EMU beds and monitor EEG remotely. Epilepsy surgery, 1.5 ECoE new staff.  - Dr. Rick Hrachovy, Director ECoE, Houston, and Dr. Thomas Kent, Associate Director. Dr. Hrachovy stated that the ECoE is affiliated with Baylor School of Medicine and we have a 4-bed EMU, epilepsy full-time nurse, 6 full-time technicians and ACGME approved fellows. We have a close working relationship with our local polytrauma center within Michael DeBakey VA Medical Center. We developed a formal protocol delineating a decision tree to direct referrals to our epilepsy monitoring unit versus referral to our seizure clinic. We established a clinical elective for which PM&R fellows can rotate through our neurophysiology laboratory.	N/A
5. Discussion / Questions	-Dr. Wasterlain, we'll open for discussion and questionsDr. Lowenstein What metrics do you plan to use for gathering data and how will you evaluate the success of the program? -Dr. Wasterlain, similar to what the PADRECC did, we plan to have our programs evaluated by an Evaluation Unit. Ryan Rieger has done a beautiful job with the annual report, which gives you an idea of the number and type of patients evaluated and treated, of the number of fellows trained, etc These numbers will be helpful for the evaluation. Any criteria that the Board might come up with would be helpful, we are open to suggestionsDr. Parko, an outside evaluator was discussed at the National Advisory Board with Dr. Mark Dicker, Chair. The PADRECC was able to utilize an outside group (COLMR), however the ECoE may not have enough time or funding for this evaluation strategy. We have to come up with a metric that will be used.	N/A
	-Dr. Wasterlain, the ECOEs are funded at the level of six (6) million per year, which is not a lot of money considering the fifteen (15) hospitals involved. No funding for research is attached—it is all for clinical programs, although there is some separate support for fellowships.  -Dr. Wasterlain, Paul Rutecki, MD has received a grant from AES through which people involved in VA ECOEs organized a research planning meeting and formed a new group. Christine Baca, MD and Mary Joe Pugh, PhD and others are initiating epidemiological research and data capture on post-TBI Epilepsy and are collaborating with the Dept of Defense which will allow access to DoD records not normally accessible to the VA.	N/A
Adjourn	-Dr. Wasterlain, if there are no more questions we will adjourn here. Thank you all.	N/A

Recorded by: Lois Bass, Southwest Regional Administrative Officer

Revised by Ellen Matthiesen, SW Regional AO (1/13/2012)

# NORTHEAST REGION ADVISORY COMMITTEE

EPILEPSY CENTER OF EXCELLENCE, NORTHEAST ANNUAL STRATEGIC PLANNING MEETING RICHMOND, VA MAY 21, 2011

Present: ECOE Staff: Drs. Towne, Krumholz, Hamid, Barry, and Kabir, Heather Hodges, Regina McGuire, Lania Cooper, Jane Stolte, George Gregoire, Phyllis Laryea.

External Advisor: Dr. John Pellock, Past President, American Epilepsy Society, Professor and Chair, Division of Child Neurology, VCU Department of Neurology

Dr. Towne gave welcoming statement and introductions were made.

**ECOE** Regional Updates

#### Dr. Hamid - VA Connecticut Healthcare System

#### Staffing

- Hiring full time EEG Technician
- ½ time nurse
  - o .5 Epileptologist Recruitment has started at Yale

#### Equipment

• 2 fixed units/monitors have been approved for purchase. Anticipate getting units installed in August/September

#### Program Update

- Telemental Health
  - · Richmond participating
  - 3 of 3 patients now seizure free
  - Developing MOU with Baltimore
    - o Stop codes for Psychology and Mental Health
    - Delta code (3rd stop code) will give workload credit for ECOE
  - Dr. Hamid is being trained by Dr. LaFranc in CBT for PNES. The training consists of 13 weekly sessions 1 hour per week. Dr. LaFranc will work with Dr. Hamid on 2 patients
  - Dr. Hamid is working on a study CBT vs Zoloft. This is a multi site study and will include 4 patients.
    - Inclusions:
      - Must be video monitored and witnessed pseudo seizure or seizure
      - Must be regularly seen by psychologist
      - Consented locally
    - Exclusions:
      - Positive for substance abuse
      - Positive for suicidal ideation/attempt

### Research

- Ongoing depression studies that include natural language tool for pseudo seizures (no ICD9 codes exist to mine data). Dr. Hamid would like
  list of patients diagnosed with pseudo seizures and seizures to validate and test the natural language tool.
- Dr. Hamid applied for research grant for epilepsy and depression
- TBI Research
  - Funded by DOD
  - Preliminary data
  - PTSD patients without blast injuries
  - Pure blast injuries without PTSD
- Studies currently being performed at Yale with 7 Tesla MRS
- Dr. Hamid is applying for K Grant

#### Dr. Towne - Richmond VA Medical Center

- Hiring full time Epileptologist. ECoE will not be funding position. The position will be funded by VA.
- Neuropsychologist to be hired
- OR intraoperative EEG technician to be hired by Richmond
- EEG Technician
  - Has been challenging to fill due to grade/wages
  - Paperwork is ready to be finalized and submit to HR
- Administrative Staff
  - Program Assistant resigned
  - New PD being written Administrative person needs to have experience with grant writing, data analysis, among other administrative functions needed to support the ECoE
- Fellowship position to be filled within one year specializing in poly trauma and epilepsy

#### Miscellaneous

- Telemental Health MOU and Service Agreement are on hold
- Establishing ECoE phone clinic to capture workload
- Construction on 4 bed poly trauma unit should be completed in 1 year

#### Dr. Krumholz - Baltimore VA Medical Center

#### Staffing

- Dr. Arif Kabir joined in October specializing in sleep and epilepsy
- Full time nurse has joined ECoE, Lania Cooper
- James Coleman new EEG Technician
- Trying to recruit ½ time EEG Technician
- Epilepsy fellow to begin July 1 (Dr. Jolly). Dr. Thomas will complete her one year fellowship on June 30
- Health Systems Specialist trainee to begin in June. Jane Stolte train for MS and Epilepsy COE responsibilities

#### Space

- Currently have one EMU bed and are waiting for 2nd bed to be set up in PCU. Anticipate to be finished within 1 year
- · Office and clinic space needs are growing

#### Equipment

Currently working with Natus to have remote access to read EEGs and also so they can effectively troubleshoot equipment problems

#### Miscellaneous

- Second surgery planned, also VNS
- Telehealth program is developing as VAMHCS equipment and staff are installed
- EHAT Dr. Kabir
  - Home Automated Telemanagement program being adapted for Epilepsy from MS (Dr. Finkelstein, Johns Hopkins)
  - Used for chronic diseases to provide monitoring, Patient education, etc.
- Dr. Barry is working on a study generic vs Lamotrogine to look at symptoms and side effects
  - 8 week study, PK, then 2 week crossover
  - Veterans and Non Veterans to be recruited, but study will be done at U of MD GCRC

ECOE Workgroups - Minutes of conference calls available for Clinical Research, Clinical Procedures, Workload Standardization, Nursing

- Research (Dr. Towne chairs)
  - o Meeting in DC for consultation with neurosurgeons about VA care
    - ICARE conference at NIH next month. Drs. Towne, Pugh (quality indicators), Salinsky and Hamid (NES) will present.
  - o Pilot EMU database (Pugh) mining OEF/OIF data
  - Lowenstein: genetic study
  - MVP national Million Veteran Program to collect DNA, data
  - Basic Science more difficult to define projects nationally
  - CPRS Template to collect data is pending IT approval
  - Salinsky planning to apply for small cooperative study (6-7 centers)
  - CURE Epilepsy meeting

#### Regional ECOE NE Meetings

- NE Meeting in 2010 was held in Baltimore in conjunction with Epilepsy Foundation Conference
  - Advisory Meeting included Drs. Bever and Fishman from Baltimore VA, others from DC VAMC, DoD
  - Encouraged to develop network
  - Work on research opportunities with DOD
- NE planning and advisory Meeting in 2011 was held in West Haven in conjunction with Yale Conference
  - Dr. John Booss and Dr. Richard Mattson were on the advisory board
    - Keep track of workload
    - Epilepsy services to Yale did not pan out because the relationship was not nurtured
    - Extremely expensive to run and ECoE. Most funding goes to nursing staff. Nursing staff needed 24 hours/day to operate
- NE Meeting in 2012 was held in Richmond in conjunction with Hans Berger Symposium
  - Jack Pellock, M.D. agreed to participate as an advisory board member
- Advisory meeting will be held in October 2012 in Baltimore, in conjunction with symposium on October 19
- ECoE members are asked to list accomplishments and goals to prepare for annual report due in August/September

# National Meetings

- National meetings were held in Boston December 2010 and Chicago September 2011
  - Discussed potential program sunset October 2013
    - IOM report, April 2012
    - Advocates needed
    - Will need to justify program as cost savings and improved care
    - Need to track epilepsy patient costs

# Consortium Network

 Draft ECOE NE brochure was presented by Baltimore nurses, McGuire and Cooper, for review prior to sending to all Chiefs of Neurology in our region

- Ryan Rieger has sent letters and applications to all neurologists nationally. Lists of those responding have been sent to each ECOE for follow up.
- Each state should have at least one hub site
- Dr. Hamid is getting referrals from all over northeast region since mailing of brochure to VISN 1
- Richmond and West Haven are piloting SCAN ECHO and is working with local areas ECOE is using sites that have that program in their facility and hope to expand in the future
- Strong need to provide sites with educational materials about program and epilepsy.
- Veteran outreach also must be considered
- Suggested that ECoE "advertise" about ECoE and services provided, i.e., Polytrauma case conferences and other local activities.

## **ECOE** Budget

- Quarterly report to VACO was less than 50% utilized at second quarter
- · Consider planned recruitment costs
- · Project funds, utilize within facility, then consider transfer funds to other NE sites or nationally

# NORTHWEST REGION ADVISORY COMMITTEE

The Northwest ECoE advisory board met by phone conference on Thursday, August 30, 2012. We would like the thank Dr. Paul Rutecki for organizing the call and providing each of the centers with copies of the ECoE Annual Report, the ECoE Advisory Board Report from 2011, the Northwest ECoE Advisory report with a summary of the activities over the past year, and the response to the recommendations of the ECoE Advisory Report of 2011. The annual reports of the Madison, Portland, Minneapolis, and Puget Sound Centers of Excellence were helpful. We particularly thank Dr. Rutecki for providing us with an advanced copy of his PowerPoint presentation. The purpose of this report is to summarize and highlight the recent accomplishments of the Northwest ECoE and to present our recommendations for its future directions.

Over the past year, NW ECoE has continued to experience growth both in the scope of its activities, and in the implementation of new programs while continuing to provide EMU services of the highest caliber, along with impressive education and outreach services. Research collaborations have continued and expanded. The staff and leadership at each of the centers is outstanding. We are pleased to note that each of the recommendations of the advisory committee report from 2011 have been addressed. Our specific comments are grouped under the headings of Clinical Care, Education, Research, Strengths, and Weaknesses. We have also outlined the progress that the ECoE has made toward addressing the committee's suggestions from May of 2011.

Clinical Care: The Puget Sound VA Healthcare System has implemented remote internet access to EEG data including live video/EEG of patients in the EMU. The EMU now has the capacity to monitor two patients instead of one. Minneapolis has significantly upgraded their EMU equipment, and a remodel of the EMU has been accomplished at the Portland VAMC. Telemedicine is being implemented in all centers with particularly active use at Madison, Puget Sound, and Portland. Portland has developed a tele EEG program with the Boise VAMC, and more than 100 procedures have been projected for FY2012, saving time and money. Infrastructures for telemedicine seizure outpatient clinics have been established at the Portland VAMC, and the Madison VAMC has a telemedicine epilepsy clinic.

Portland ECoE has proposed a patient satisfaction survey which is currently going through the committee approval process, and a National patient satisfaction survey is being developed. Puget Sound now has a mandatory patient satisfaction survey evaluating resident clinical performance.

Referrals with an open door policy have climbed in all centers, but it is not clear whether this increase outpaced growth in non-epilepsy centers. It is clear that consortia are being successfully developed at all centers, satisfying one of the major national goals of the ECoE program: Developing hub and spoke networks for epilepsy clinical care.

Education: Educational and outreach activities have been active in all centers in FY2011 and FY2012. Multiple scientific and educational presentations have been made by all centers with a total of 36 presentations at local and national events documented in the progress reports, and every center is actively involved with outreach education, nursing, resident, and student and patient education. Patient and family as well as provider satisfaction surveys are used to assess presentations.

An epilepsy fellowship was established at the Portland VAMC with the first "graduate" in 2012. Centers are actively participating in Resident and Fellow education.

Nursing in-service education has been implemented in the EMUs, with patient and staff safety emphasized.

Research: Research has continued to be a strong suit at the centers, capitalizing on the multicenter consortium of the Northwest ECoE and the national ECoEs. The number of publications in peer review journals has been impressive (27) and poster sessions at national meetings have been numerous. Research funding has been successful with two funded VA merit reviews funded, one RO1 grant funded, and one research career development award funded. Another study has been approved for funding by the AES. A career development award was funded. Non-funded research activity continues in all centers.

Strengths: It is clear that the NW ECoE has been successful in capitalizing on the consortium model, both to improve clinical care and to strengthen education and outreach for both healthcare professionals and patients, as well as to grow their research funding within the VA system while leveraging their center status to secure outside funding as well. The consortium has clearly leveraged the power of their common database to secure research funding, even though more needs to be done. Telemedicine has been expanded and is active at three of the centers, and is being developed in the fourth. EMUs have been expanded and updated. The committee is pleased with the progress the consortium has made in implementing the suggestions of this committee from May of 2011.

Weaknesses: Funding for administrative support remains an issue at many of the centers. Despite this, the Portland VAMC hired a program administrator, but other centers have found it difficult to replace staff lost by attrition as well as to recruit additional staff. Some of this is because of Human Resource roadblocks stemming in part from a misunderstanding of the nature of the ECoEs. The hiring problem is particularly acute at the Minneapolis VAMC, where Neurology is under the Surgery (!) service line.

The major issue over which the centers have little control is the long term funding of the ECoEs on a national level. Funding is set to expire on September 30, 2013. This uncertainty results in some instability and hampers secure future planning.

Progress of the centers in implementing the committee's suggestions of May 2011:

- 1. Document the effectiveness of the ECoE by rigorous tracking of referrals by source, documenting attendance at educational programs. We note that while there is some tracking of referrals on a national level comparing ECoEs with non ECoE centers, it is not clear what is being done specifically at the Northwest ECoEs.
- 2. Include a veteran representative on the advisory board. A veteran is now on the advisory board.
- 3. Take advantage of the common data base being developed. While some good progress has been made in leveraging the power of the common database to secure funding outside of the VA, more collaborative research among the centers is encouraged. The psychogenic nonepileptic seizure

study led by Dr. Salinsky and the Traumatic Brain Injury Study being developed nationally is recognized. More collaborative studies such as these are encouraged.

- 4. Expand telemedicine usage. The committee is encouraged by the progress in implementing telemedicine despite staffing and funding problems.
- 5. Address cost effectiveness. While the cost effectiveness of the diagnosis of epilepsy in the VA population is being studied on a national level, the committee encourages active participation of the northwest ECoE.
- 6. Consider a short evaluation form for referring doctors. The committee would like to have more specific information on the progress of the survey of referring doctors.
- 7. Consider following up with patients to characterize outcomes. We understand that this is being pursued at a national level, but we are uncertain what role the Northwest ECoEs are playing.
- 8. Coordinate patient care within the region. The committee is pleased with the progress in this area, particularly with telemedicine and in the research arena.
- 9. Determine rules and regulations regarding virtual consultation and credentialing processes. The committee is pleased that teleconsultation is being implemented in some centers.
- 10. Consider implementing telemedicine within 6 months at Portland. The committee is pleased with the progress of implementing telemedicine and tele EEGs.
- 11. Determine diagnostic related expenses the year before and the year after monitoring. As with items number 5, 6, and 7, the committee is not clear what efforts are being made in the NWECoE in this area.

#### Summary:

The committee wishes to congratulate the centers on their progress over FY2011 and FY2012. We note, in particular, the progress in telemedicine and tele EEG, upgrades and expansions of the EMUs, the success of the epilepsy clinics, the increase in referrals and the progress in exploiting the resources of the consortium in research and in healthcare. We encourage further efforts to secure funding from research from outside sources as well as within the VA such as the Cooperative Studies Program. The committee is also very pleased with the educational activities of the centers, both on a national and regional level, and on a local level. It is clear that the ECoEs are delivering a level of care not previously achieved. Of concern is the continuing lack of support of administration on a local level.

#### Recommendations:

- 1. Centers are urged to remind their local Administration that funding for the centers is provided from Central Office, and should be considered a pass through to the centers. The funds are not awarded to the VAMCs for discretionary use.
- 2. The Committee is very concerned that the Neurology service at the Minneapolis VAMC is under the Surgical product line. The committee feels that is inappropriate, and that Neurology with its ECoE should be a stand-alone service as it is in other VAMCs in the NW region. We are concerned that being a part of the Surgical product line puts the ECoE in a disadvantaged position.
- 3. We recommend that each ECoE have an Administrative officer as well as a Nurse or Nurse Practitioner, as funded by Central office.
- 4. We encourage the ECoEs to liaison with local offices of the Epilepsy Foundation and with their affiliated Medical Schools to educate appropriate constituents about the precarious long term Center funding issues.
- 5. We encourage rapid implementation of physician-physician/health care provider electronic consultation.
- 6. Regional educational conferences focusing on patient care in the EMUs, utilizing patient presentations, and involving all members of the local consortium. The goal is to increase understanding of the use of the EMUs and their effectiveness, and to improve coordination of care.
- 7. Continue, and expand collaboration with local Epilepsy Foundations.
- 8. Participate in the development of a standard national database for EMU admissions and outcome measures.
- 9. Develop an electronic template for clinic notes modeled on the one being developed at the Raleigh Durham VA. This will provide a uniform, accessible and common data base.
- 10. Implement electronic EEG links with other hospitals in the consortia based on the Portland Boise model.
- 11. Work to involve all VAMCs in the NW region in the consortia.

We hope you will find these comments and recommendations helpful. Please feel free to contact us if there are any questions or concerns.

Dennis B. Smith, Professor of Neurology emeritus, Oregon Health Sciences University, and former CREDO Brent Herrmann, President/CEO Epilepsy Foundation Northwest Bruce Hermann, Professor of Neurology, University of Wisconsin-Madison Vickie Kopplin, Executive Director Epilepsy Foundation Minnesota

# SOUTHEAST REGION ADVISORY COMMITTEE

Southeast ECoE Advisory Committee Conference Call Wednesday, December 15, 2011, 10-11am EST 1.800.761.800.767.1750 Access Code 44549#

Members:

☐ Aatif Husain, Director, SE ECoE	Stephen Nadeau, MD, Chief of Neurology, Gainesville
□ Pamela Kelly , Regional Administrative Director	☐ Mohamad Mikati, MD, Epileptologist, Duke University Medical Center
	☐ Charles Brock, MD Chief of Neurology, Tampa
□ Patricia Gibson , President, Epilepsy Foundation of N.C.	

Others Present: Rizwana Rehman, Regional Biostatistician
Winona Finley, Regional Administrative Support Assistant

Agenda Item/Topic	Discussion/Conclusion/Recommendation	Action/Follow-up
Opening remarks &     Changes in SE ECoE     leadership.	<ul> <li>Dr. Husain opening remarks included congressional mandates reminder of the public law requirements in the establishing of 4-6 Epilepsy Centers of Excellence with reiteration on the following guiding principles of centers must:         <ul> <li>link to existing polytrauma centers (Southeast ECoE linked to Tampa)</li> <li>link to academic centers and conduct research</li> <li>be established by a peer review panel</li> <li>be geographically dispersed</li> <li>leverage technology to improve access to care</li> </ul> </li> <li>The funding level of \$6 million dollars yearly for FY09-14 has 1 ½ years of funding left prior to renewal.</li> <li>Changes in SE ECoE leadership:         <ul> <li>Durham- New Administrative Director- Pamela R. Kelly</li> <li>Miami- New Director – Dr. Maria Lopez</li> </ul> </li> </ul>	
2. Presentation	National ECoE Highlights   Establishments	-Winona will forward patient & physician audio conference flyers to SE ECoE Advisory Committee members.

Agenda Item/Topic	Discussion/Conclusion/Recommendation	Action/Follow-up
	<ul> <li>Increase profile and advertising awareness</li> <li>Better connection with Department of Defense (DOD)</li> <li>Persuade VA care</li> <li>Reduce cost &amp; monitor work</li> </ul>	
SE ECoE Advisory Committee feedback	<ul> <li>Improve marketing</li> <li>Share patient and provider education material (internal and external)</li> <li>Outreach to primary care</li> <li>Consider direct and indirect cost (Referral System)</li> </ul>	Updates will be provided as necessary to SE ECoE Advisory Committee Members.

Recorded by: Winona Finley, Administrative Support Assistant

# **PUBLIC LAW S. 2162**

One Hundred Tenth Congress of the United States of America

#### AT THE SECOND SESSION

Begun and held at the City of Washington on Thursday, the third day of January, two thousand and eight

An Act

To improve the treatment and services provided by the Department of Veterans Affairs to Veterans with post-traumatic stress disorder and substance use disorders, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

#### TITLE IV—HEALTH CARE MATTERS

Sec. 404. Epilepsy Centers of Excellence.

- (a) In General.—Subchapter II of chapter73 is amended by adding at the end following new section:
- '§ 7330A. Epilepsy centers of excellence

# (a) ESTABLISHMENT OF CENTERS.—

- (1) Not later than 120 days after the date of the enactment of the Veterans' Mental Health and Other Care Improvements Act of 2008, the Secretary shall designate at least four but not more than six Department health care facilities as locations for epilepsy centers of excellence for the Department.
- (2) Of the facilities designated under paragraph (1), not less than two shall be centers designated under section 7327 of this title.
- (3) Of the facilities designated under paragraph (1), not less than two shall be facilities that are not centers designated under section 7327 of this title.
- (4) Subject to the availability of appropriations for such purpose, the Secretary shall establish and operate an epilepsy center of excellence at each location designated under paragraph (1).

#### (b) DESIGNATION OF FACILITIES.—

- (1) In designating locations for epilepsy centers of excellence under subsection (a), the Secretary shall solicit proposals from Department health care facilities seeking designation as a location for an epilepsy center of excellence.
- (2) The Secretary may not designate a facility as a location for an epilepsy center of excellence under subsection (a) unless the peer review panel established under subsection (c) has determined under that subsection that the proposal submitted by such facility seeking designation as a location for an epilepsy center of excellence is among those proposals that meet the highest competitive standards of scientific and clinical merit.
- (3) In choosing from among the facilities meeting the requirements of paragraph (2), the Secretary shall also consider appropriate geographic distribution when designating the epilepsy centers of excellence under subsection (a).

# (c) PEER REVIEW PANEL.—

(1) The Under Secretary for Health shall establish a peer review panel to assess the scientific and clinical merit of proposals that are submitted to the Secretary S. 2162—18 for the designation of epilepsy centers of excellence under this section.

- (A) The membership of the peer review panel shall consist of experts on epilepsy, including post-traumatic epilepsy.
- (B) Members of the peer review panel shall serve for a period of no longer than two years, except as specified in subparagraph(C).
- (C) Of the members first appointed to the panel, one half shall be appointed for a period of three years and one half shall be appointed for a period of two years, as designated by the Under Secretary at the time of appointment.
- (3) The peer review panel shall review each proposal submitted to the panel by the Under Secretary for Health and shall submit its views on the relative scientific and clinical merit of each such proposal to the Under Secretary.
- (4) The peer review panel shall, in conjunction with the national coordinator designated under subsection (e), conduct regular evaluations of each epilepsy center of excellence established and operated under subsection (a) to ensure compliance with the requirements of this section.
  - (5) The peer review panel shall not be subject to the Federal Advisory Committee Act.

## (d) EPILEPSY CENTER OF EXCELLENCE DEFINED.—

In this section, the term 'epilepsy center of excellence' means a health care facility that has (or in the foreseeable future can develop) the necessary capacity to function as a center of excellence in research, education, and clinical care activities in the diagnosis and treatment of epilepsy and has (or may reasonably be anticipated to develop) each of the following:

- (1) An affiliation with an accredited medical school that provides education and training in neurology, including an arrangement with such school under which medical residents receive education and training in the diagnosis and treatment of epilepsy (including neurosurgery).
- (2) The ability to attract the participation of scientists who are capable of ingenuity and creativity in health care research efforts.
- (3) An advisory committee composed of Veterans an appropriate health care and research representatives of the facility and of the affiliated school or schools to advise the directors of such facility and such center on policy matters pertaining to the activities of the center during the period of the operation of such center.
  - (4) The capability to conduct effectively evaluations of the activities of such center.
- (5) The capability to assist in the expansion of the Department's use of information systems and databases to improve the quality and delivery of care for Veterans enrolled within the Department's health care system.
- (6) The capability to assist in the expansion of the Department telehealth program to develop, transmit, monitor, and review neurological diagnostic tests.
- (7) The ability to perform epilepsy research, education, and clinical care activities in collaboration with Department medical facilities that have centers for research, education, and clinical care activities on complex multi-trauma associated S. 2162—19 with combat injuries established under section 7327 of this title.

# (e) NATIONAL COORDINATOR FOR EPILEPSY PROGRAMS.—

- (1) To assist the Secretary and the Under Secretary for Health in carrying out this section, the Secretary shall designate an individual in the Veterans Health Administration to act as a national coordinator for epilepsy programs of the Veterans Health Administration.
  - (2) The duties of the national coordinator for epilepsy programs shall include the following:
    - (A) To supervise the operation of the centers established pursuant to this section.

- (B) To coordinate and support the national consortium of providers with interest in treating epilepsy at Department health care facilities lacking such centers in order to ensure better access to state-of-the-art diagnosis, research, clinical care, and education for traumatic brain injury and epilepsy throughout the health care system of the Department.
- (C) To conduct, in conjunction with the peer review panel established under subsection (c), regular evaluations of the epilepsy centers of excellence to ensure compliance with the requirements of this section.
- (D) To coordinate (as part of an integrated national system) education, clinical care, and research activities within all facilities with an epilepsy center of excellence.
- (E) To develop jointly a national consortium of providers with interest in treating epilepsy at Department health care facilities lacking an epilepsy center of excellence in order to ensure better access to state-of-the-art diagnosis, research, clinical care, and education for traumatic brain injury and epilepsy throughout the health care system of the Department. Such consortium should include a designated epilepsy referral clinic in each Veterans Integrated Service Network.
- (3) In carrying out duties under this subsection, the national coordinator for epilepsy programs shall report to the official of the Veterans Health Administration responsible for neurology.

# (f) AUTHORIZATION OF APPROPRIATIONS.—

- (1) There are authorized to be appropriated \$6,000,000 for each of fiscal years 2009 through 2013 for the support of the clinical care, research, and education activities of the epilepsy centers of excellence established and operated pursuant to subsection (a)(2).
- (2) There are authorized to be appropriated for each fiscal year after fiscal year 2013 such sums as may be necessary for the support of the clinical care, research, and education activities of the epilepsy centers of excellence established and operated pursuant to subsection (a)(2).
- (3) The Secretary shall ensure that funds for such centers are designated for the first three years of operation as a special purpose program for which funds are not allocated through the Veterans Equitable Resource Allocation system.
- (4) In addition to amounts authorized to be appropriated under paragraphs (1) and (2) for a fiscal year, the Under Secretary for Health shall allocate to such centers from other funds appropriated generally for the Department medical services account and medical and prosthetics research account, as appropriate, such amounts as the Under Secretary for Health determines appropriate.
- (5) In addition to amounts authorized to be appropriated under paragraphs (1) and (2) for a fiscal year, there are authorized to S. 2162—20 be appropriated such sums as may be necessary to fund the national coordinator established by subsection (e).".
- (b) CLERICAL AMENDMENT.—The table of sections at the beginning of chapter 73 is amended by inserting after the item relating to section 7330 the following new item: "7330A. Epilepsy centers of excellence.".

# **ABBREVIATIONS / ACRONYMS**

**AAN** American Academy of Neurology

ACGME Accreditation Council for Graduate Medical Education

AED Antiepileptic drugs

AES American Epilepsy Society
CAC Clinical Application Coordinator
CBOC Community Based Outpatient Clinic

CDC Centers for Disease Control and Prevention

**CICU** Coronary Intensive Care Unit

**CoE** Center of Excellence

CPRS Computerized Patient Record System
CPT Current Procedural Terminology

**CVT** Clinical Video Telehealth **DOD** Department of Defense

**DRMRP** Department of Defense Deployment Related Medical Research Program

**DSS** Decision Support System

DVBIC Defense and Veterans Brain Injury Center
ECMS Executive Committee, Medical Staff
ECOE Epilepsy Center of Excellence
EEG electroencephalography
EES Employee Education System

**EF** Epilepsy Foundation

**EFGLA** Epilepsy Foundation of Greater Los Angeles

EMG Electromyography
EMU Epilepsy Monitoring Unit
FDA Food and drug Administration

FTE Full-time Equivalent

FTEE Full-time Employee Equivalent

**FY** Fiscal Year

GABA Gamma-Aminobutyric Acid GLA Greater Los Angeles

GRECC Geriatric Research, Education and Clinical Center

**HCS** Health Care System

**HIMS** Health Information Management System

**HL7** Health Level Seven (technology standard for exchanging information between clinical applications)

**HSR&D** Health Services Research and Development

IC Informatics Council

ICD International Classification of Diseases

ICU Intensive Care Unit IFC Inter-Facility Consult

IOM Integrated Operating Model

IRM Information Resources Management

IT Information Technology
LTM Long Term Monitoring
MIT Means Indicator Test

MRI magnetic resonance imaging

MSECoE Multiple Sclerosis Center of Excellence

NIH National Institutes of Health
NTRT New Term Rapid Turnaround
OAA Office of Academic Affiliation
OEF Operation Enduring Freedom
OIF Operation Iraqi Freedom
OND Operation New dawn

PADRECC Parkinson's Disease Research, Education and Clinical Center

PET Positron emission tomography

**PGY** Post Graduate Year

P.L. Public Law

PM &R Productivity Measurement and reporting or Physical Medicine and Rehabilitation

**PNES** Psychogenic non-epileptic seizures

PROMIS Patient-Reported Outcomes Measurement Information System

PTC Polytrauma Centers
PTSD Post-traumatic epilepsy

QUIET Quality Indicators in Epilepsy Treatment
QTI Question and Test interoperability
R&D Research and Development

**RBM** Roll Back Malaria

**REEGT** Registered Electrocephalographic technician

RFA Request for Application RFP Request for Proposal

**RPIW** Rapid Process Improvement Workshop

**S.2162** {110the} Veterans' Mental Health and other Care

**TBI** Traumatic brain injury

TMS Transcranial Magnetic Stimulator

UF University of Florida
USF University of South Florida
V-Tel Video Teleconference
VACO VA Central Office
VAHCS VA Health Care System
VAMC VA Medical Center

VANTS VA Nationwide Conferencing System VAGLAVAMC VA Greater Los Angeles VAMC

VAMiaVAMC VA Miami VAMC - Bruce W. Carter - Miami, Florida

**VAMHCS** VA Maryland Health Care System

VANMHCS
VA New Mexico Health care System – Raymond G. Murphy VAMC
VAPSHCS
VA Puget Sound Health Care System – Seattle, Washington
VARICHVAMC
VASTVAMC
VA South Texas VAMC – Audie L. Murphy VAMC – Tampa, Florida

**VATampa** VA Tampa VAMC – James A. Haley

VAWIVAMC VA Wisconsin VAMC – William S. Middleton - Madison, Wisconsin

**VEEG** Video Electroencephalogram

VERA Veterans Equitable Resource Allocation
VetPop Veteran Population Projections Model

VHA Veterans Health Administration
VISN Veterans Integrated Service Network

VNS Vagus Nerve Stimulator
VSSC VISN Support Services Center

WADA Intracarotid Sodium amobarbitol procedure named after Canadian epileptologist Juhn Atsushi Wada

WLA West Los Angeles