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 | www.epilepsy.va.gov





Defining EXCELLENCI in the 21st Century

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EPILEPSY CENTERS OF EXCELLENCE

ANNUAL REPORT FY16 October 1, 2015 – September 30, 2016



MISSION

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

Message from the VA National Program Director, Neurology



Wednesday, September 21, 2016 marked my one-year anniversary as National Director of Neurology. The first 12 months have proven both challenging and rewarding. This has also been an uncertain time for the Centers of Excellence in Neurology. Despite many challenges the Epilepsy Centers of Excellence (ECoE) has ensured that Veterans receive the highest quality of care and timely access to cutting-edge treatment. This is a testament to the commitment and determination of ECoE providers and staff across the country. Early in FY16 it appeared that struggles with staffing and support

would ease. Regrettably, initial excitement was tempered by the realization that funding for these positions was not available. Despite a depleted and overextended workforce, the clinical activity of the ECoE has continued to grow.

Excellence in clinical service has been complemented by activity in education and research. For example, a partnership with the VHA Employee Education System the ECoE has produced the informative "Veterans and Epilepsy: Basic Training" video series. In addition, a recent report (Morb Mortal Wkly Rep 2016: 65: 1224-1227) documents increased morbidity and mortality in Veterans of recent conflicts with epilepsy.

The continued success of the ECoE requires thoughtful examination of current programs and activities. Budgetary constraints are unlikely to ease in the near term. Judicious distribution of limited resources, and efforts to discover new sources of support, will be crucial.

The ECoE is fortunate to have a team of creative, dedicated and hard-working individuals. It has been my pleasure and privilege to work alongside this team over the past year. With a sustained focus on the health and well-being of the Veteran with epilepsy, I am convinced that the future is bright.

Donald Higgins

Donald Higgins, MD National Program Director of Neurology Veterans Health Administration

Message from the Acting National ECoE Director



The past year has been a successful one in that we have seen many projects come to fruition. A number of these were spearheaded by Ryan Rieger, national administrative officer for the VA Epilepsy Centers of Excellence, who unfortunately has left the VA this past year. We wish Ryan well in his new position and also thank him for the outstanding work he did for the VA Epilepsy Centers of Excellence. I also want to thank Pamela Kelly-Foxworth and Andrew David for taking on extra work to serve as national administrative officer on a rotating basis.

We have met many of our goals that we set for FY16. The EMU safety policies continue to be developed through the nursing work group. The Women Veterans with epilepsy work group has developed a collaborative relationship with the Women Veteran Health Care group to identify teratogenic medications when ordered through CPRS, the VA's electronic health record. The epilepsy clinic template is being updated. Cognitive behavior therapy for epilepsy and psychogenic non-epileptic seizures has become increasingly available through the efforts of Drs. LaFrance and Altalib.

We have added a TBI section to the epilepsy monitoring unit data base. We have continued to partner with the Chronic Effects of Neurotrauma Consortium (CENC) largely through the efforts of Drs. Pugh and Towne. Dr. Salinsky has submitted a letter of intent to the VA cooperative studies research office and is awaiting their response. Through the efforts of Drs. Rehman and Tran, anti-epileptic drug use is being surveilled.

Perhaps the area that we have seen fruition of Ryan's and Dr. Parko's efforts the most is our education efforts. The "Epilepsy: Basic Training" YouTube productions that are being released and gaining positive attention from our advocacy partners. The production and availability of the provider educational series is now complete. A webinar presentation on sudden unexpected death in epilepsy occurred in FY16. We also authored as a group a publication in the Federal Practitioner (September 2016, 33 (9):26-32) entitled "Providing quality epilepsy care for Veterans".

We have set a number of goals for FY17 that build on our prior successes. As a group we are looking to continue to partner with Mental Health for psychiatric co-morbidities management, but also will look to develop strong relationships with primary care as we recognize medical co-morbidities the also occur with epilepsy. We will be starting to gain center certification from the National Association of Epilepsy Centers.

A major concern for FY17 and the future is our budget. Our current organizational charts cannot be maintained with a budget that has remained flat. Many positions can no longer be filled and our organization will have to be savvy to leverage vacancies to

maintain key positions, including the national administrative officer. This challenge is great and will test the resourcefulness of the centers. That being said, the epilepsy centers continue to strive in fulfilling the mission of improving the health and well-being of Veteran patients with epilepsy and other seizure disorders through the integration of clinical care, outreach, research, and education.

Paul Rubecki

Paul Rutecki, MD Acting National Director Epilepsy Centers of Excellence

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 sub-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, changing medications in a monitored setting, and presurgical evaluation. 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. You can also contact your local ECoE site directly for assistance in connecting to services. For more information please visit our website at <u>www.epilepsy.va.gov</u>.

NATIONAL 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.
- Collaboratively develop a national consortium of providers with interest in treating epilepsy at VA healthcare facilities lacking an epilepsy center of excellence in order to ensure better access to stateof-the-art diagnosis, research, clinical care, and education for traumatic brain injury and epilepsy throughout the VA healthcare system.
- To collaborate with VA Polytrauma / TBI System of Care that provide research, education, and clinical care to Veteran patients with complex multi-trauma associated with combat injuries.
- Utilizing national VA and other databases in order to inform providers and policy makers in VA Central Office about healthcare delivery and health policy decisions, conducting state-of-the-art research in Epilepsy, and implementing an informatics backbone to meet the above objectives.
- To ensure an affiliation with accredited medical schools, providing education and training in neurology, and the diagnosis and treatment of epilepsy (including neurosurgery).
- Providing health professional education and training to nursing staff, medical students, house staff, fellows, and referring physicians, in order to deliver the highest quality of standard of care to Veterans with epilepsy.

FY16 National ECoE Goals

Clinical

- Develop EMU safety policy (Ozuna and Krumholz)
- Ensure that teratogenic or potentially teratogenic anti-epileptic drugs are identified when ordered in CPRS (Van Cott and Women Veterans Health Care)
- Upgrade epilepsy clinic note (Husain, Rehman and Kelly-Foxworth)
- Continue to increase access to mental health services for PNES and pilot a telemental health group therapy program for Veterans with epilepsy and mood and/or anxiety disorders (Hamid and LaFrance)
- Continue to build and enhance hub and spoke model of care (Rutecki)

Research/Surveillance

- Add TBI information into the epilepsy monitoring unit database (Salinsky and Towne)
- Develop a policy to enhance research collaboration and publication process for data obtained through the ECoE and consortium sites (Pugh and Towne)
- Enhance collaboration with the Continued Effects of Neurotrauma Consortium (CENC) (Towne)
- Complete pilot evaluation of anti-epileptic drug (AED) and psychotropic drug use and possible interactions of enzyme inducing AEDs (Rehman and Tran)
- Tracking anti-epileptic drug use in the VA (Rutecki, Rehman and Tran)

Education

- Roll out patient and care giver "Epilepsy Basic Training" videos (Rieger)
- Obtain approval and disseminate provider educational presentations that have been produced (Rieger)
- Undertake educational initiative for providers, patients, and care givers regarding Sudden Unexpected Death in Epilepsy (SUDEP) (Ozuna and Rutecki)

Operations

 Begin development of VA Directive to address the Epilepsy Centers of Excellence (Chen and Rutecki)

FY16 National ECoE Goals (Status)

FY16 Goals	Met Expectations	IN Progress	Comment
Develop EMU safety policy	х		
Ensure that teratogenic or potentially teratogenic anti-epileptic drugs are identified when ordered in CPRS		х	Identified issues are being addressed
Upgrade epilepsy clinic note		X	Under review
Continue to increase access to mental health services for PNES and pilot a tele-mental health group therapy program for Veterans with epilepsy and mood and/or anxiety disorders		x	Training program in place; has met annual training quote (2-3 certified yearly).
Continue to build and enhance hub and spoke model of care		X	Ongoing project
RESEARCH/SURVEILLANCE			
Add TBI information into the epilepsy monitoring unit database	х		
Develop a policy to enhance research collaboration and publication process for data obtained through the ECoE and consortium sites		x	In drafting phase
Enhance collaboration with the Continued Effects of Neurotrauma Consortium (CENC)	x		
Complete pilot evaluation of anti-epileptic drug (AED) and psychotropic drug use and possible interactions of enzyme inducing AEDs		x	Surveillance project results under review
Tracking anti-epileptic drug use in the VA for epilepsy	х		Project extended into FY17 to evaluate trends
EDUCATION			
Roll out patient and care giver "Epilepsy Basic Training" videos	X		See link on page 67
Obtain approval and disseminate provider educational presentations that have been produced	x		See page 67
Undertake educational initiative for providers, patients, and care givers regarding Sudden Unexpected Death in Epilepsy (SUDEP)	X		ECoE Webinar held September 27, 2016
OPERATIONS			
Begin development of VA Directive to address the Epilepsy Centers of Excellence		х	In drafting phase

FY17 National ECoE Goals

Clinical:

- Meet access demands
- Develop performance improvement projects: intractable epilepsy, depression (Altalib, Rutecki)
- Continue to build and enhance hub and spoke model of care, increase eConsults access (Rutecki)
- Submit NAEC applications from at least 4 sites
- Foster relationships with primary care
- Identify a mental health champion at each site (Altalib)
- Re-establish clinical work load group (Garga)

Research/Surveillance Goals

- Complete pilot evaluation of anti-epileptic drug (AED) and psychotropic drug use and possible interactions of enzyme inducing AEDs (Rehman and Tran)
- Tracking AED use in the VA with regard to ECoE, consortium, and other sites (Rehman, Rutecki, and Tran)
- Increase epilepsy patient enrollment in the 1 million Veteran program
- Collaboration with Mary Jo Pugh on DoD grant: The Epidemiology of Epilepsy and Traumatic Brain Injury: Severity, Mechanism, and Outcomes (Pugh and Towne)

Education

- Continue Roll out for patient and care giver "Epilepsy Basic Training" videos (David)
- Produce "Epilepsy Basic Training" videos (David, Rutecki)
 - Wellness and self-management
 - o Women Veterans with epilepsy
- Create provider talks for primary care
 - Epilepsy mimics (David Chen)
 - First line seizure medications (Tortorice)

Operations

- Development of VA Directive to address the Epilepsy Centers of Excellence (Chen and Rutecki)
- Re-establish administrative infrastructure

FY17 National ECoE Goals Crosswalk

(Alignment of FY17 goals with VA Goals and MyVA Priorities)*

GOALS								
	ACCESS		VETER	AN-Centric Care	Q	UALITY/Transparency		
Objective 1A	Enhance hub and spoke model and increase e- consultation access	Ob 1V	ojective	Continue to improve Veteran experience during EMU evaluations	Objective 1Q	Performance improvement projects regarding depression and intractable epilepsy		
Objective 2A	Continue and increase telehealth epilepsy clinics and telehome health clinics	Ob 2V	ojective	Continue to produce and develop You Tube "basic Training" videos	Objective 2Q	Submit National Association Epilepsy Center applications from 4 sites		
Objective 3A	Continue and increase cognitive behavioral therapy for epilepsy and psychogenic non- epileptic seizures	Ob 3V	jective	Foster relationships with primary care, including educational presentations	Objective 3Q	Complete Handbook for Epilepsy Centers of Excellence		
Objective 4A		Ob 4V	jective Identify mental health champion at each site		Objective 4Q	Track anti-epileptic drug use at ECoE sites, consortium sites, and independent sites		
	Crosswalk			My V.	A Priorities			
1A,2A,3A, <mark>1</mark>	/,2V,3V,4V,1Q,4Q	Ι	Improve seamless, restructur point of a developed experience	the Veteran Experience , integrated, and responsive re our organization to unit access to their benefits and d five districts integrating ce	e: MyVA m ve customer fy our work d personal in g VHA, NCA	eans providing Veterans with a service experience. VA will and give Veterans a single formation. MyVA has A, VBA to enhance the Veteran		
1A,2A,3A, <mark>3</mark> V	<mark>1</mark> ,2Q,3Q	Π	Improve the Employee Experience:Employees are the face of the VA: MyVA empowers them to deliver excellent customer service to improve theIIVeteran experience.MyVA removes barriers our employees face in providing Veterans with timely, high-quality service, and provides employees the tools, training, and leadership development needed for success.					
1A, 2A,3A, <mark>1</mark> 4Q	<mark>V, 3V, 4V</mark> , <mark>1Q, 2Q, 3Q,</mark>	III Achieve Support Services Excellence: MyVA has taken steps to improve our internal support services for VA employees to help them deliver exceptional customer service.						
1V, 3V, 4V,	1Q, 2Q, 3Q, 4Q	IV Continuous Performance Improvement: Establish a culture of continuous improvement so that problems are identified and corrected; promote use of Lean strategies for process improvement and spread best practices.						
2V, 2Q		Enhance Strategic Partnerships:Expand our strategic partnerships withVnational and community groups to extend the reach of services available for Veterans and their families.						

*Each if the FY17 Goals are categorized as aligning with one of the 3 major VA Mission goals and then cross walked to illustrate how each of the ECoE goals supports 1 or more of the MYVA Priorities.

CENTERS OF EXCELLENCE

Southwest

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

Linked Polytrauma Site: Palo Alto and San Antonio

Albuquerque	New Mexico VAHCS	505.256.2752
Houston	Michael E. DeBakey VAMC	713.794.8835
San Antonio	Audie L. Murphy VA Hospital	210.617.5161
San Francisco	San Francisco VAMC	415.379.5599
West Los Angeles	Greater Los Angeles HCS	310. 268.3595

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

Baltimore	VA Maryland HCS	410.605.7414
Richmond	Hunter Holmes McGuire VAMC	804.675.5000 x3734
West Haven	VA Connecticut HCS	203.932.5711 x2420

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	612.467.2047
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

Durham	Durham VAMC	919.416.5982
Gainesville	Malcom Randall VAMC	352.376.1611 x6818
Miami	Miami VAHCS	305.575.7000 x7008
Tampa	James A. Haley VAMC	813.972.7633

Linked Polytrauma Site: Tampa

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
- Provide V-tel epilepsy consultation
- Provide epilepsy monitoring
- · Have a single director that is an epileptologist
- Has a designated administrative support person 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 in accordance with VA Policy and procedures.
- 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 Video EEG Telemetry 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

REGIONAL MAP





U.S. Department of Veterans Affairs Veterans Health Administration Miami VA Healthcare System

National Workgroups Directors

Administrative Support

Nursing

EEG Technologists

Clinical Research

Basic Science Research Database Education Clinical Procedures

Workload Standardization

Pharmacy

By Laws/Operations Manual Women Veterans

PNES

Organization

National Director of Neurology

Dr. Donald Higgins

Deputy Director - Neurology

Dr. Glenn Graham

Acting National Director Dr. Paul Rutecki

National Administrative Director





National VA Epilepsy Consortium

The goal of the National VA Epilepsy Consortium^{*} is to support the delivery of optimal care for Veterans diagnosed with epilepsy and seizure disorders through professional education, collaboration, and peer support across the collective VA Healthcare System. All interested VA clinicians, including epileptologists, neurologists, genoral internists, and other allied health professionals who serve Veterans with epilepsy and related seizure disorders (regardless of capacity), are invited to participate.

Together with the Epilepsy Centers of Excellence (ECoE), the National VA Epilepsy Consortium will create a hub and spoke model of care across the VA Healthcare System, expanding and streamlining the referral network for specialized epilepsy treatment, advanced neuro-diagnostics, and surgical evaluation. The Epilepsy Consortium will ensure accessibility and continuity of specialized care for Veterans regardless of locality, broadening the impact of the ECoE network. The National VA Epilepsy Consortium serves as a direct link to the 16 ECoE sites, which are staffed by epilepsy specialist or neurology clinicians, and provide administrative assistance, professional collaboration, and educational offerings in epilepsy care.

Members of the National VA Epilepsy Consortium will be offered a variety of epilepsy educational resources and updates on state-of-the-art epilepsy care from the ECoE. Additionally, Consortium members that provide more comprehensive epilepsy services to Veterans can engage with the ECoE sites to assist in the development of standardized clinical processes and procedures ensuring consistent quality of care across the VA Healthcare System.



*110 VA healthcare providers from 56 VA facilities

Inventory of Services

ECoE Inventory of Services - FY15	San Francisco, CA	Los Angeles, CA	Houston, TX	San Antonio, TX	Albuquerque, NM	Baltimore, MD	Richmond ,VA	West Haven, CT	Madison, WI	Minneapolis, MN	Portland, OR	Seattle, WA	Durham, NC	Miami, FL	Gainesville, FL	Tampa, FL
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 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	4	2	4	3		1	2	2	3	2	3	2	3	2	4	2
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	х	х
Magneto encephalography																
Radio Surgery (Gamma Knife)			х													
Functional MRI (fMRI)			х	х			х				х					х
Ambulatory EEG		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	х	х
eConsult	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
Telephone Clinics	х	х	х	х	х	х	х	х	х	х	х	х	х		х	х
SCAN-ECHO	х					х	х	х	х	х	х					
Patient Home Telehealth	х							х	х				х			
Store & Forward Remote EEG Reading			х	х							х	х	х		х	
On-Site Therapy for PNES	х		х			х		х					х			
NTMHC Tele-NES Provided	х		х				х	х	х							
Ability to Perform Wada Testing	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	х
Resection Surgery	х	х	х	х		х	х		х		х		х		х	
Intracranial Recordings: Grids/ Strips	х	х	х	х					х		х		х			
Intracranial Recordings: Standard Depth	х	х	х	х					х		х		х			
Intraoperative Electrocorticography (ECoG)	х	х	х	х			х		х		х		х		х	
Intraoperative Cortical Stimulation / Mapping	х	х	х						х							
Extraoperative Cortical Stimulation / Mapping	х	х	х						х		х					
Placement of VNS	х	х	х	х	х	х	х		х	х	х		х	х	х	х
Neuropace																
Deep Brain Stimulation	х	х	х	х			х				х					
Primary ECoE Contact Phone Number	415.379.5599	310.268.3595	713.794.8835	210.617.5161	505-265.1711 x2752	410.605.7414	804.675.5000 x3748	203.932.5711 x4724	608.256.1901 x17728	612.467.4236	503.220.8262 x58330	206.277.4292	919.416.5982	305.575.7000 ×7008	352.374.6082	813.972.7633

ECoE Workload



FY16 CLINICAL WORKLOAD

Data Source: VSSC Encounter Cube

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

	Outpa	tient Clinic		EEG	LTM			
Facility	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters		
(V01) (689) VA Connecticut HCS, CT	187	354	162	165	46	108		
(V05) (512) Baltimore HCS, MD	357	606	203	236	34	181		
(V06) (558) Durham, NC	534	827	292	319	48	196		
(V06) (652) Richmond, VA	511	919	461	595	47	79		
(V08) (546) Miami, FL	330	767	328	396	86	209		
(V08) (573) Gainesville, FL	100	184	481	529	42	139		
(V08) (673) Tampa, FL	227	347	672	715	76	297		
(V12) (607) Madison, WI	276	529	214	231	59	327		
(V16) (580) Houston, TX	737	1336	756	911	161	723		
(V17) (671) San Antonio, TX	543	775	696	826	26	32		
(V18) (501) New Mexico HCS	296	445	197	216				
(V20) (648) Portland, OR	487	879	315	333	50	209		
(V20) (663) VA Puget Sound, WA	485	774	365	389	39	118		
(V21) (662) San Francisco, CA	239	639	102	109	73	246		
(V22) (691) Greater Los Angeles HCS	339	638	607	686	148	430		
(V23) (618) Minneapolis, MN	344	597	363	408	40	150		
Total	5,980	10,616	6,206	6,206 7,064		3,444		

PSYCHOGENIC NON-EPILEPTIC SEIZURE WORKLOAD

Data Source: Self Report

Facility	Unique Patients	Encounters
(V01) (689) VA Connecticut	15	47
HCS, CT	15	47
(V01) (650) Providence, RI	18	132
(V06) (558) Durham, NC	42	301
(V16) (580) Houston, TX	22	79
(V21) (662) San Francisco,	10	61
CA	10	61
Total	107	620

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.

FY16 Telehealth Workload Data Source: VSSC Encounter Cube Data collected using appropriate stop code

	Video Tel	eHealth Clinic	Video Te	leHealth Clinic			
Facility	Local Station		Differ	ent Station	Home Video TeleHealth		
Facility	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	
(V01) (689) VA Connecticut HCS, CT	8	10					
(V05) (512) Baltimore HCS, MD	3	3					
(V06) (558) Durham, NC	53	70	27	47	9	10	
(V06) (652) Richmond, VA	73	103	23	27			
(V08) (546) Miami, FL	56	100					
(V08) (573) Gainesville, FL	38	52	9	9			
(V08) (673) Tampa, FL							
(V12) (607) Madison, WI	53	82	13	17			
(V16) (580) Houston, TX	51	73					
(V17) (671) San Antonio, TX							
(V18) (501) New Mexico HCS	40	47	1	1			
(V20) (648) Portland, OR			28	49			
(V20) (663) VA Puget Sound, WA			7	11			
(V21) (662) San Francisco, CA	39	84	7	15	1	1	
(V22) (691) Greater Los Angeles HCS	12	20					
(V23) (618) Minneapolis, MN	28	40	13	21			
Total	454	684	128	197			

	Telep	hone Clinic	eC	Consults	Ilts Store & Forward EEG	
Facility	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters	Unique Patients	Unduplicated Encounters
(V01) (689) VA Connecticut HCS, CT	108	212				
(V05) (512) Baltimore HCS, MD	122	242	8	8		
(V06) (558) Durham, NC			1	1	215	216
(V06) (652) Richmond, VA	80	105	49	49		
(V08) (546) Miami, FL	29	37				
(V08) (573) Gainesville, FL	1	1			20	20
(V08) (673) Tampa, FL	46	83				
(V12) (607) Madison, WI	111	235	2	2		
(V16) (580) Houston, TX	15	17	2	2		
(V17) (671) San Antonio, TX	125	155				
(V18) (501) New Mexico HCS	4	4				
(V20) (648) Portland, OR	215	345	27	28	80	82
(V20) (663) VA Puget Sound, WA	43	66	14	14		
(V21) (662) San Francisco, CA	98	297	15	21		
(V22) (691) Greater Los Angeles HCS	76	97	31	31		
(V23) (618) Minneapolis, MN	44	69	7	7		
Total	1,114	1,965	156	163	315	318

*For Store & Froward EEG local station and different station data are combined.

FY16 Surgery Workload

ECoE Surgery Workload - FY15	Resection Surgery		Intracranial	Recordings: Grid/Strip	Intracranial Recordings: Standard	Depun (Free Hand and Neuro-Navigation)	Intracranial Recordings:	StereoEEG Depths - Sterotactic Frame	Intraoperative	Executocor ucography (ECoG)	Intraoperative	Cortical Summation / Mapping	Extraoperative	Mapping	SINZX	CNTA
	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY	FY
	15	16	15	16	15	16	15	16	15	16	15	16	15	16	15	16
(V01) (689) VA																
Connecticut HCS, CT																
HCS, MD																2
(V06) (558) Durham, NC	3	1	4	1									1			
(V06) (652) Richmond, VA															1	
(V08) (546) Miami, FL																
(V08) (573) Gainesville, FL	1															
(V08) (673) Tampa, FL																
(V12) (607) Madison, WI		3			1	1									1	1
(V16) (580) Houston, TX	1	2	1	1					1	1						1
(V17) (671) San Antonio, TX															1	
(V18) (501) Albuquerque, NM																
(V20) (648) Portland, OR	1	1	2	2											2	
(V20) (663) VA Puget Sound, WA																
(V21) (662) San Francisco, CA		1		2					1	3	1	1		1		
(V22) (691) West Los Angeles, CA	3		1				1		7		1		3			
(V23) (618)					l i		l –								1	
Minneapolis, MN															1	
Total	9	8	8	6	1	1	1	0	9	4	2	1	4	1	6	4

ECoE Workload Trends Facility Clinic Visits



Epilepsy Patients







Long Term Video EEG Monitoring (LTM)



Clinical Video Teleconference

Outreach: Tele-Epilepsy



Telephone

Clinical Video Teleconference

Epilepsy Chart



Data Source: VSSC Encounter Cube. Numbers for FY11-FY12 maybe under reported due to workload capture issues. Remote EEG combined data reported for local (same) and different station.

Epilepsy Monitoring Unit database

The aim of the FY16 EMU database collection is to assess elements of care and utilization provided through the network of ECoE's. Each of the 14 sites, reporting epilepsy monitoring unit admissions, collected information on the elements; age, gender and length of stay along with monitoring classification for each visit and cumulative visits (if appropriate) and primary and secondary diagnoses. Traumatic brain injury information (when available) was also collected. The total number of patients admitted for long-term monitoring (non-EMU) was 843 over all sites, with 712 being EMU patient visits (Fig 1).



The median length of stay was 3-4 days with a maximum of 14 days and overall site admissions totaling 1740 days (Fig 2).





EMU Days per Admission



Figure 3 demonstrates that the ages ranged from 20-92 years with median ages between 50-59 and 82% of known gender patients being male.

Figure 3



Figure 4 highlights the seizure classification most encountered in the EMUs. Classification categories most observed were; localization related epilepsy with ictal EEG changes (16%), PNES (16%) and the inconclusive category with subjective events (38%) felt to represent seizures with definite electrographic evidence. Three percent of the inconclusive category was unclassified in any of the listed categories.



Patients admitted to the EMU with a reported TBI in the medical record comprised 40% of the patients. In 12% of the patients it was not possible to determine if the patients had suffered a TBI. (Fig 5)



Figure 4

Civilian TBI had the highest number of patients at 46% followed by military TBI at 38%. (Fig 6)

Percentage of EMU admissions classified by the severity of the traumatic brain injury is shown in Figure 7. For 41% of the patients it was not possible to determine the TBI severity. (Fig 7)



Cohort	Epilepsy Pa	tients, %	All VA Patients, %				
All Patients	83,30	62	6,056,3	801			
Age <45	11,100	13.3%	1,072,632	17.7%			
45≤ Age<65	32,948	39.5%	1,900,435	31.4%			
Age ≥ 65	39,314	47.2%	3,083,234	50.9%			
Males	76,74	40	5,464,3	32			
Age <45	8,995	11.7%	825,984	15.1%			
45≤ Age<65	29,306	38.2%	1,622,936	29.7%			
Age ≥ 65	38,439	50.1%	3,015,412	55.2%			
Females	6,62	2	591,90	59			
Age <45	2,105	31.8%	246,648	41.7%			
45≤ Age<65	3,642	55.0%	277,499	46.9%			
Age ≥ 65	875	13.2%	67,822	11.5%			
Epilepsy: Males 92.1%, I	emales 7.9%	All VA: M	lales 90.2%, Ferr	nales 9.8%			
OEF/0	DIF/OND P	ATIENT C	OUNTS				
All Patients	6,18	8	740,70	03			
Age <45	5,028	81.3%	554,661	74.9%			
45≤ Age<65	1,124	18.2%	179,516	24.2%			
Age ≥ 65	36	0.6%	6,526	0.9%			
Males	5,44	42	642,40	09			
Age <45	4,413	81.1%	477,515	74.3%			
45≤ Age<65	995	18.3%	158,737	24.7%			
Age ≥ 65	34	0.6%	6,157	1.0%			
Females	746	5	98,29	4			
Age <45	615	82.4%	77,146	78.5%			
45≤ Age<65	129	17.3%	20,779	21.1%			
Age ≥ 65	2	0.3%	369	0.4%			
Epilepsy: Males 87.9%, F	Epilepsy: Males 87.9%, Females 12.1% All VA: Males 86.7%, Females 13.3%						

VHA FY15 Patient Counts

Algorithm: Patients prescribed at least thirty days of anti-epileptic drugs in FY15 cross matched with seizure diagnosis (ICD-09-CM 345.xx, 780.39) during FY13-FY15. *Diagnoses data from EEG and LTM clinics were excluded. Estimated positive predictive value of 82.0% from chart review of 500 patients (95% confidence interval: 78.6% to 85.4%)* **Data Sources:** Corporate Data Warehouse (CDW), VSSC Diagnosis Cube and Pharmacy Benefit Management (PBM). *Numbers rounded to the nearest one decimal digit for percentages.* Unknowns have been excluded from the analysis.

VHA FY15 EPILEPSY PREVALENCE ESTIMATES





Algorithm: Patients prescribed at least thirty days of anti-epileptic drugs in FY15 cross matched with seizure diagnosis (ICD-09-CM 345.xx, 780.39) during FY13-FY15. *Diagnoses data from EEG and LTM clinics were excluded. Estimated positive predictive value of 82.0% from chart review of 500 patients* (95% confidence interval: 78.6% to 85.4%)

Data Sources: Corporate Data Warehouse (CDW), VSSC Diagnosis Cube and Pharmacy Benefit Management (PBM).

Numbers rounded to the nearest one decimal digit for percentages. **Unknowns have been excluded from** *the analysis.*

OUTREACH

Operations

- Expansion of telehealth services nationally
- Muti-center research/study

Social Media

• Website traffic increased.



- VHA ECoE is now recognized on the National Association of Epilepsy Centers website.
- Epilepsy website link added to VA Caregiver website.

Partnerships

- ECoE Partnering with Epilepsy Foundation on activities associated with the Connectors Provider Outreach Program.
- New ECoE Consortium members.
- Member of Epilepsy Leadership Council (American Epilepsy Society).
- Partner with CSR (Center for SUDEP research).

Education

- Epilepsy Basic Training Series for patients and care givers (see page 67).
- CME Provider series (see page 67).
- AED Physician Pocket Card.

Awareness activities

- Representation at National Epilepsy Awareness Day (November, 2015).
- Purple Day events (March, 2016).
- Multiple patient education events
 - ECoE/Duke Patient education symposium (November 2015).
 - Durham Epilepsy Foundation and ECoE Monthly collaborative meetings.
 - West LA partnership with Southern California Epilepsy Foundation.
 - West Haven partnership with Epilepsy Foundation Connecticut in 1 Veteran Outreach program.

SOUTHWEST REGION

James Chen, MD, Southwest ECoE Regional Director Vacant, Southwest ECoE Regional Administrative Director



GREATER LOS ANGELES VA MEDICAL CENTER

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Barreda, Joaquin	EEG Technologist	Joaquin.Barreda@va.gov	310.268.3092	0.000					



FY16 Accomplishments:

- Opening of new EMU in a newly remodeled ward, with new equipment (256, 64, 32 channel EEG), HD video and new EEG data server.
- The 3 new EMU room is a single-bed room with windows and a private bathroom.
- Over 50 WLA nurses have completed the in-service training for providing epilepsy cares.
- One phase 2 study with subdural grid implantation and cortical stimulation for eloquent cortex mapping
- Two anterior temporal lobe resection surgery, one VNS implantation, one DBS implantation (on compassionate basis)
- Start Art therapy program (in collaboration with the Epilepsy Foundation of Southern California) for patients in seizure clinic and EMU
- Start "Take Action Group", which is a monthly program hosted by a psychologist through teleconference/online meeting. The program is supported by a grant from Sunovion to the Epilepsy Foundation of Southern California.
- Provide fellowship training in Clinical Neurophysiology and Posttraumatic Epilepsy Research.
- Various research projects in the genetics of epilepsy, basic mechanism of status epilepticus, basic mechanism of seizures, quantitative EEG analysis, outcome researches

Future Initiatives:

- Improve veterans' comfort level in EMU admission using the newly remodeled single-patient room with windows and a private bathroom.
- Reduce EMU admission wait time.
- Continue ECOE cares at the current level (except telehealth)
- · Expand surgical therapy to include Neuropace implantation and programming.
- Expand surgical therapy to include Visualase therapy.
- Continue the Art therapy program that is collaborated with Epilepsy Foundation.
- Continue the Take Action Group that is collaborated with Epilepsy Foundation.

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
Rafael Lopez-Baquero, MD	Polytrauma Epilepsy	No	1.000	07/15/14	07/15/15
Justin Cheongsiatmoy, MD	Clinical Neurophysiology	Yes	1.000	07/01/14	06/30/15
Inna Keselman, MD, Ph.D.	Clinical Neurophysiology	Yes	1.000	07/01/14	06/30/15
Chutima Saipetch, MD	Clinical Neurophysiology	Yes	1.000	07/01/14	06/30/15
Inna Keselman, MD, Ph.D.	Polytrauma Epilepsy	No	1.000	07/15/15	06/30/17
Christopher Cheng, MD	Clinical Neurophysiology	Yes	1.000	07/01/15	06/30/16
Parissa Vassef, MD	Clinical Neurophysiology	Yes	1.000	07/01/15	06/30/16
Yana Bukovskaya, PharmD, BCPS	PGY-2 Neurology Specialty Pharmacy Resident	Candidacy Status	1.000	07/01/14	06/30/15
Grace Minassian	PGY-2 Neurology Specialty Pharmacy Resident		1.000	07/01/15	06/30/16

Fellowships:



San Francisco VA Medical Center 4150 Clement Street (127E), San Francisco, CA 94121 Phone 415.379.5599 Fax 415.379.5666 www.epilepsy.va.gov/SouthWest/SanFrancisco

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Mueller, Susanne	Epilepsy Imaging Research	Susanne.mueller@ucsf.edu	415.221.4810 x22538	0.000				
Balter, Stacey	Epilepsy Research (COVE)	Stacey.balter@ucsf.edu	415.221.4810x25075	0.000				
Poon, Linda	Clinical Pharmacist	Linda.poon@va.gov	415.221.4810x24375	0.000				
vacant	National Administrative Director			1.000				



FY16 Accomplishments:

- Intracranial nursing protocol formalized and implemented in EMU, and first grid patient monitored within the EMU (rather than ICU) successfully.
- On-call pay for EEG technologists approved and instituted.
- Established CBT-informed therapy for PNES both on station and by telehealth to 2 CBOC's (Ukiah, Eureka) and one interfacility site (Fresno/Oakhurst).
- ECoE curriculum project (12-video series recorded in Portland in 2014) became accredited for CME, and is currently in the last phase of uploading to TMS.
- Added patients for video-to-home telehealth visits for epilepsy in Colorado, Sacramento, and Reno areas.
- Improved remote EEG reading access with installation/activation of biomedical engineering ports throughout hospital wards.
- Maintained continuous quality improvement program for EMU patient safety. Trained and recertified RN staff during annual nursing skills day.

Future Initiatives:

- Expand CBT for PNES by video telehealth to additional IFC referral sites within SFVA ECoE spoke network.
- Develop SOP for non-EMU continuous EEG monitoring outside of the ICU.
- Expand video-to-home telehealth clinic volume.
- Become an NAEC-accredited level III site independent from university affiliate.
- Upgrade LTM EEG systems within the next year.
- Establish contract with NeuroPace to implant device (approved as surgical site).
- <u>Maintain current services without increased funding, having reached maximum</u> manageable clinical volume with increasing administrative demands limiting patient care service expansion, and challenges backfilling vacant positions.

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
June Yoshii- Contreras, MD	Epilepsy	Yes	0.5	07/01/15	06/30/16
Proleta Datta, MD, PhD	Epilepsy	Yes	0.5	07/01/16	06/30/17
Brian Cabaniss, MD	Polytrauma Epilepsy	No	0.5	07/01/15	06/30/16
Wolfgang Muhlhofer, MD	Polytrauma Epilepsy	No	0.5	07/01/15	06/30/16
June Yoshii- Contreras, MD	Polytrauma Epilepsy	No	0.5	07/01/16	06/30/17

Fellowships:



NEW MEXICO VA HEALTHCARE SYSTEM

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Albuquerque ECoE Staff								
Name	Position	Email	Phone	ECoE FTE				
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Anna Vigil, MD	Physician	Anna.Vigil@va.gov	(505) 256-5701	0.130				
JoAnn Harnar, RN	Neurology Nurse	JoAnn.Harnar@va.gov	(505) 256-5701	0.290				

FY16 Accomplishments:

- Over 93% satisfaction rating by veterans with epilepsy who we care for my teleneurology.
- Generally seen as an excellent epilepsy clinic in New Mexico in spite of the fact that we do not have an EMU (these patients are sent to other VAMCS in California).

Future Initiatives:

- Continue to support VAMCs that have unique expertise so our relatively small VA can send very complicated veterans to their hospitals.
- Support teleneurology as a viable alternative to face to face epilepsy care.
MICHAEL E. DEBAKEY VA MEDICAL CENTER

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Michael E. DeBakey VA Medical Center

ichael E. DeBakey VA Medical Center

Houston ECoE Staff					
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Walker, Harold	EEG Technologist	Harold.Walker@va.gov	713.794.8835	0.000	
Hall, Rodney	EEG Technologist	Rodney.Hall@va.gov	713.794.8835	1.000	
McGrew, Janice	Neurophysiology Lab Secretary	McGrew.Janice@va.gov	713.794.8835	0.000	

FY16 Accomplishments:

- The results from the 2015 All Employee Survey (AES) at our Houston VAMC showed that satisfaction scores from employees within our Neurophysiology section was among the highest at our VA hospital.
- Dr. Chen received Fulbright & Jaworski LLP Faculty Excellence Award --Teaching and Evaluation Category from Baylor College of Medicine, Spring 2016.
- Dr. Chen received the 2016 Faculty Teaching Award from the Department of Neurology, Baylor College of Medicine.
- Houston ECOE serves as coordinating center for a multi-center study (with Durham and SF VAMCs) to investigator the effectiveness of group treatment approach which utilizes cognitive behavioral therapy for patients with psychogenic nonepileptic seizures (Dr. Chen). All sites has received their respective IRB approval and are now enrolling subjects.
- Houston ECOE now offers an ACT (Acceptance and Commitment Therapy) based inpatient treatments as standard of care for all veterans admitted to the EMU and has an ongoing research study looking at the efficacy of the treatment for reducing stressors related to both epilepsy and psychogenic nonepileptic seizures (Dr. Collins).

- We have implemented new neuropsychological assessments for patients in the EMU, aiming to:

 Identify acute psychiatric needs and subsequently facilitating treatment, 2) determine need for
 psychiatric follow-up after discharge from the EMU, and 3) provide additional information to aid in
 the differentiation of ES versus psychogenic nonepileptic seizures (Dr. Collins).
- We secured additional VA funding to support the epilepsy fellowship at 2.0 FTE (from 1.75 FTE previously).
- We secured funding to purchase an additional EEG reading station (for Epilepsy Fellow) and a new Tele-Health unit dedicated to Houston ECOE.
- We completed renovation of the work-space for Epilepsy and Neurophysiology Fellows.
- We have implemented new didactic and clinical training programs for neurology residents who are rotating through the Epilepsy/EEG elective rotation.
- We significantly reformed the work-duty schedule of our epilepsy faculty, resulting in measurable improvement in work efficiency.
- All of our epilepsy faculty received training pertaining to the clinical utilization of the Neuropace system.
- We have hired a new Epilepsy Nurse Practitioner (Melissa Fadipe).
- We have hired a new Lead EEG technologist (Ritu Jain).
- We have cross trained our EEG technologist, Roy Lynn Batiste, who is now more proficient with technical aspects involved in electrocorticography (ECoG).

Future Initiatives:

- Continue to pursue mission of the VA in provide compassionate and state-of-art care of veterans afflicted by seizures.
- Maintain or surpass the high volume of EMU and clinic patient census which we have been able to achieve.
- Continued emphasis on a "safety first" EMU approach to our phase 1 and phase 2 evaluations of veterans afflicted by seizures.

Fellowships:

The Michael E. DeBakey VA Medical Center (MEDVAMC) supports 2 FTE for the Clinical Neurophysiology & Epilepsy Fellowship programs. The fellows rotate at the MEDVAMC approximately 1/3 of their fellowship.

Name	Fellowship	VA FTE	Start Date	End Date
Murphey, Dona	Clinical Neurophysiology	0.33	July 1, 2014	June 30, 2015
Ram, Aarthi	Clinical Neurophysiology	0.33	July 1, 2014	June 30, 2015
Robles, Liliana	Clinical Neurophysiology	0.33	July 1, 2014	June 30, 2015
Hina Dave	Epilepsy	0.33	July 1, 2015	June 30, 2016
Chutima Saiptech	Epilepsy	0.33	July 1, 2015	June 30, 2016
Sikawat Thanaviratananich	Clinical Neurophysiology	0.33	July 1, 2015	June 30, 2016
Holly Rutherford	Clinical Neurophysiology	0.33	July 1, 2015	June 30, 2016

AUDIE L. MURPHY VA HOSPITAL

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South Texas Veterans Health Care System

San Antonio ECoE Staff						
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FY16 Accomplishments:

- Hired second EEG technologist.
- Established epilepsy e-consult service.
- Implemented outside video-EEG review using a secured Citrix-based utility in the CAG access.
- Hired part time Epilepsy nurse.
- Hired second epileptologist.
- Obtained approvals and policy procedures for operation of our Epilepsy Monitoring Unit (EMU).
- Expanded outpatient epilepsy clinics.
- Working with mental health to provide training and mentoring opportunities to neuropsychology fellows.

Future Initiatives / FY16 Goals:

- Recruit and hire Nurse Practitioner for Epilepsy to fill the ECoE Program Coordinator position.
- Obtain approval for hiring an additional EEG Technologists for EMU.
- Continue to work on operations for EMU set up.
- Develop tools to identify a battery of tests for brief neuropsychological assessment for patients with newly diagnosed epilepsy.

NORTHEAST REGION

Allan Krumholz, MD, Northeast ECoE Regional Director R. Andrew David, MS, MHSA Northeast ECoE Regional Administrative Director



VA MARYLAND HEALTH CARE SYSTEM

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- Worked with local Mental Health mentoring and providing training opportunities to neuropsychology fellows.
- Held virtual Northeast Advisory Board meeting in January 2015.
- Local Neurology recruited new sleep/epilepsy physician.
- Conducted review of barriers to telehealth acceptance.
- Adding EEG services at Perry Point campus (~1hr N of Baltimore campus).
- Expanded outpatient seizure clinic.
- Integrated neuropsychology screening in outpatient seizure clinic.
- Visited and met with primary care in local Community Based Outpatient Clinics.
- Neuropsychologist in training with Dr. LaFrance for CBT for PNES.

Future Initiatives:

- Expand telehealth to Lebanon VAMC.
- Relocate EEG laboratory.
- Expand telehealth and eConsults.
- Improve stability of remote access.
- Establish an ACMGE accredited Epilepsy fellowship with affiliate.
- Participate in future post-traumatic epilepsy research.

Fellowships:

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
David Miller, MD	Clinical Neurophysiology	No	0.0	July 1, 2015	June 30, 2016
Chalita Atallah, MD	Clinical Neurophysiology	No	0.0	July 1, 2015	June 30, 2016
Christopher Laohathai, MD	Polytrauma/ TBI	No	1.0	September 1, 2015	August 31, 2016
Chalita Atallah, MD	Polytrauma/ TBI	No	1.0	July 1, 2016	June 30, 2017
Hassan Elnour, MBBS	Clinical Neurophysiology	No	0.0	July 1, 2016	June 30, 2017
Sara Hefton, MD	Clinical Neurophysiology	No	0.0	July 1, 2016	June 30, 2017



HUNTER HOLMES McGUIRE RICHMOND VA MEDICAL CENTER 1201 Broad Rock Blvd., Richmond, VA 23249 Phone: 804.675.5000 x3734 Fax: 804.675.5939 www.richmond.va.gov



Welcome to the Hunter Holmes McGuire Richmond VA Medical Cente

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FY16 Accomplishments:

- Hired additional epileptologist.
- Hired neuro NP.
- Expanded appointment grid.
- Acquired equipment software to increase patient safety.
- Acquired dense array equipment for further investigation and research of patient seizure focus.
- Transcranial magnetic stimulator (TMS) for integration with dense array EEG.
- Transcranial direct current stimulation (TDCS) research for epilepsy.

- Expanding service as liaison between patients and other healthcare providers.
- Establishing patient support programs and serving as a resource for patient, family and nursing staff education.
- Promoting community awareness and education.
- Establishing and maintaining support programs and educational materials.
- Involved in specialized research activities including data collection and management in posttraumatic epilepsy.
- Research collaboration with other ECoE sites related to TBI and epilepsy.

VA CONNECTICUT HEALTHCARE SYSTEM

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- Visits made to out of state spokes VAMCs to promote referral to West Haven EMU.
- Sustained telephone f/u post EMU. admission,100% for last 2 quarters.
- Teleseizure clinic- starting with 1 patient/month, but average distance 52 miles from VAMC, thus improving access to specialty care.
- Completed VISN-1 CDA funded PNES Study.

- Increase tele-seizure clinics by 25%.
- Increase the number of referrals from outside VACT by 25%.
- Collaborate with Epilepsy Foundation Connecticut in one Veteran outreach Program in FY17.
- Increase utilization of MyHealtheVet by 25%.
- Review e-consult workload and referral process.



NORTHWEST REGION

Martin Salinsky, MD, Acting Northwest ECoE Regional Director VACANT, Northwest ECoE Regional Administrative Officer



WILLIAM S. MIDDLETON VETERANS HOSPITAL

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- Grew telemental health to provide CBT for epilepsy and PNES.
- Dr. Kotloski's research career development award begun.
- Participation in regional SCAN-ECHO presentations.
- VA ECoE Table at Mall of America in Minneapolis for Purple Day (March 19, 2016).
- Have integrated mental health into epilepsy clinic with psychiatrist present.

- Grow telemental health service.
- Continue to enroll epilepsy patients in the 1 million veteran program.
- Develop home teleheath visits for epilepsy patients.
- Develop performance improvement measures in epilepsy clinic.



MINNEAPOLIS VA HEALTH CARE SYSTEM

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- Hired Nurse Practitioner.
- Hired Neurodiagnostic Supervisor.
- Hired and trained two new EMU Monitor Techs.
- Trained new Nursing Staff in EMU.
- Implemented off- site EEG review for EMU.
- Established formal Neurophysiological evaluation for all patients admitted to the EMU.
- Increased Clinic visits and Tele-Health to reduce wait times.



- Completed RCA to improve patient safety in the postictal state in EMU and Hospital wide.
 - Improved education for nursing staff management on the postictal state.
 - Increased mandatory seizure education for hospital EMU and nursing staff to twice yearly (from annually).
 - Improved EMU room set-up process and signage.
 - Improved communication with EMU nursing staff by establishing rounding by NP, nursing staff attendance at Physician rounds, and end of week debriefings.
- Developed Epilepsy Educational Traveling Board that rotates throughout the hospital.
- Developed seizure management education; "On the John Training" for staff and the general Public.
- Met with Epilepsy Advocacy & Employment Group and established ECOE presence on their advisory board.
- Met with Epilepsy Foundation and established intent to collaborate.
- Participated in Anita Kaufmann Foundation Purple Day Walk for Epilepsy and Brain Games.
- Established a hospital-wide team and participated in the Epilepsy Foundations Rise Above Seizures Walk September 24th, 2016.
- Seizure awareness and management added to annual Nursing Skills Fair.
- Seizure simulation training.

- Hire another Epileptologist.
- Hire another EEG technologist.
- Hire and train additional EMU monitor techs.
- Cross site collaboration with Madison to improve/enhance services.
- Present Nursing Grand Rounds Focused on Epilepsy and Seizure Management in Oct 2016.
- Continue Annual Epilepsy Awareness event to coincide with national Epilepsy month in November.
- Establish an employment training program with local epilepsy advocacy group to help Veterans with epilepsy overcome barriers for employment and find jobs.
- Collaborate with the Minnesota Epilepsy Foundation to bring additional resources to Veterans with epilepsy.
- Collaborate with Madison, Wisconsin ECOE to benchmark, obtain ideas for streamlining services, improving efficiency and expanding services.
- Explore opportunities for a Telemedicine Epilepsy support group for Veteran's across the VISN
- EEG Lab Accreditation.
- Collaborate with local VA TBI/DVBIC Groups.
- Increase Clinic visits and Tele-Health to reduce wait times.
- Implement Home Tele Heath for rurally located Veterans.
- Increase EMU admissions to decrease wait times and increase patient scheduling choices.
- Implement outreach to referral base and improve coordination of care with consortium sites.
- Initiate CBT services.

- Initiate ECOE based research project.
- Consider poster or podium presentation at national APRN conference.
- Increase participation in national ECOE efforts.
- Develop a procedure manual for the EEG/EMG lab.

Fellowships

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
Dr. Haliza	Clinical	YES	0.17	08/01/2016	09/30/2016
Hassan	Neurophysiology				
Dr. Wangcai	Clinical	YES	0.17	02/01/2017	05/31/2017
Gao	Neurophysiology				

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- Continue telemedicine Clinics (Boise and Roseburg), Tele-EEG clinics (Boise, Spokane), telephone clinics (expanded), e-consult, and outpatient clinics
- Research
 - Ongoing funded, multi-center research (COVE study)
 - Submission of ECoE VA cooperative study (LOI)
 - Submission of DoD VA ECoE multicenter study of TBI and PNES (pre-application)
 - Completion of QA study on emergency department imaging of epileptic seizures within the VA
 - Expansion of Veterans with Epilepsy Support Group
- Rehiring of nurse practitioner (position was empty from 10/15-8/16).

Future Initiatives / FY17 Goals:

- Recruitment of supervisory EEG technologist
- Recruitment of Administrative Assistant
- Expansion of NW Epilepsy SCAN-ECHO provider education
- Expansion of both the Telehealth and Tele-EEG offerings to the White City VA.
- Implementation of 2nd generation EMU reporting software (Klein software package)
- Submission of full VA cooperative studies grant application.

Fellowships:

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
Amro	VA Polytrauma/Traumatic	Clinical Neurophysiology	0.5	7/1/15	7/1/16
MD	Advanced Fellowship		1.0	7/1/16	7/1/17
Matthew McCaskill, MD	VA Polytrauma/Traumatic Brain Injury Rehab - Clinical Advanced Fellowship		1.0	7/1/15	7/1/16
Joseph Nguyen DO		Epilepsy	0.5	7/1/16	7/1/17



PUGET SOUND VA HEALTHCARE SYSTEM

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Vercome to the VA Puget Sound Healthcare System

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- Ozuna was lead author of AANN's Clinical Practice Guidelines "Care of Adults and Children with Seizures and Epilepsy."
- Ozuna collaborated with nurse members of AES, AANN to create a list of educational resources for nurses and other health care providers available on the respective organizations web sites.
- Filled the vacant ECoE Nurse/educator/administrator position.
- Kati Pagulayan, PhD is providing CBT for PNES.

- Conduct outreach to promote VAPSHCS ECoE services in the veteran and active military community.
- Establish an epilepsy support group for patients and their caregivers. (Potential coordination with TBI Support Group that already exists). Include special presentations on subjects such as safety, medications, lifestyle, etc.
- Broaden cognitive behavioral therapy services to PNES patients (train our new ECoE nurse to be one of the team that can provide this service).
- Increase telehealth visits in Western Washington CBOCs (several new MOUs for these clinics are completed).

SOUTHEAST REGION Aatif M. Husain, MD Regional Director Pamela Kelly-Foxworth, Regional Administrative Director



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- Continued to facilitate national critique and assessment of the National Epilepsy Clinical Template/Registry.
- Mining national data from the Clinical Template/Registry.
- Continued to facilitate the expansion of telemedicine for epilepsy in the Southeast region, to include Tele-Home clinics and CBT clinks.
- VA/Duke collaborative patient education symposium "Living with Epilepsy: Life without Limits" (November, 2015).

- Installation and implementation of Clinical Template/Registry version 2.
- Continued expansion of Telemedicine for epilepsy.
- Improve paradigm for patient movement within the region for better access to specialized epilepsy resources.
- Collaboration research and surveillance projects specifically those addressing the use of ICD-10 codes.
- Continued collaboration with Epilepsy Foundation to sponsor and support education and awareness efforts in the community about epilepsy.
- Continue partnership with Duke to sponsor and support annual patient education symposium event.



DURHAM VA MEDICAL CENTER

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- Implemented new home tele-epilepsy clinics and maintained remote CBOC tele-epilepsy growth.
- Maintained the gains for tele-EEG: current sites in Greenville, Asheville & Orlando.
- Increased intracranial monitoring admissions and epilepsy surgical resections.
- Improved referral paradigm for out-of-state epilepsy cases.
- Updated new paradigm for continuous and overnight EEG monitoring in ICU.
- Full implementation of Neuropsychologist Cognitive Behavioral Therapy (CBT) to improved service delivery for psychogenic non epileptic seizures (PNES) cases.
- Supported VA/Duke collaborative patient education symposium "Living with Epilepsy: Life without Limits" event by providing speakers and staff (November, 2015).
- Supported and participated in local annual epilepsy walk events as a team.
- Participated in Facility homeless Veteran stand down event by manning table with epilepsy education material for purpose of increasing community awareness about epilepsy.

- Increase collaborations with remote-site Greenville CBOC to improve patient access.
- Continue to expand tele-medicine clinics, including tele-EEG, tele-epilepsy (CVT) and teleepilepsy (home) to include assisting with implementation for other neurology areas.
- Maintain steady cases of intracranial epilepsy admissions.
- Expand CBT treatment to groups and tele-medicine to improve access.
- Continued support and participation in community events to increase awareness of epilepsy.



MALCOM RANDAL VA MEDICAL CENTER

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FY16 Accomplishments:

- 30 admissions for LTVEEG monitoring
- 272 clinic encounters
- 541 EEGs
- Establishment of two additional telemedicine clinics (total of ten)
- Participation in national epilepsy video productions
- Identification of new ECOE Medical Director

- Establish two Epilepsy consult telemedicine clinics
- Increase ECOE awareness within VISN 8
- Increase referrals by at least 20% via ECoE awareness at CBOCs/OPCs
- Participate in county health fair during FY17 to promote awareness of seizures in Veteran population
- Establish
 - e-consults
 - SCAN-ECHO
 - store & forward remote EEG reading
- Establish working relationship with Epilepsy Foundation Gainesville

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- Expanded services to the MICU to include all beds cEEG in ICU.
- Successfully operated 3 weekly epilepsy clinics.
- Monthly telehealth epilepsy clinics expanded to 2 clinic a month.
- Submitted a merit Pilot study.
- The Miami VAH recruited a general neurology/epileptologist who has been actively involved in the
 patients' care pf patients with epilepsy.
- Maintained an easy access to outpatient clinics.

- Add CBT clinic
- Increase number of referral from Bay Pines VAMC.
- Obtain certification of CBT for patients with PNES.
- Include quality measures of women with epilepsy from the AAN integrated into epilepsy clinic.
- Review and update equipment software AS needed by the end of FY17.
- Complete wiring of all MICU beds to have remote viewing available in order to review remotely continuous video EEG.
- Support from Nursing for patient education in Epilepsy Clinic an education for sitters and nurses taking care of patients in EMU.



JAMES A. HALEY VETERANS HOSPITAL

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ECoE Staff					
Name	Position	Email	Phone	ECoE FTE	
Alfred (Tom) Frontera	ECoE Director	afronter@health.usf.edu	(813)972-7633	0.75	
Selimi Benbadis	Epileptologist	sbenbadi@health.usf.edu	(813)972-7633	0.10	
Deepali Jain	Epileptologist	Deepali.jain@va.gov	(813)972-7633	0.00	
Noemi Rincon	Epileptologist	Noemi.rincon-flores@va.gov	(813)972-7633	0.00	
Christopher Holt	EEG Tech	Christopher.holt2@va.gov	(813)972-2000 x 6901	1.00	
Cynthia Jackson	EEG Tech	Cynthia.jackson@va.gov	(813)972-2000 x 6901	0.00	
Jennifer Marrero	Program Support Assistant	Jennifer.marrero@va.gov	(813)972-2000 x 5076	0.50	
Melinda Anello	Neurology AO	Melinda.anello@va.gov	(813)972-7633	0.00	

FY16 Accomplishments:

- Opened new 2 bed EMU in the medical step-down unit to provide continuous nursing video surveillance of EMU patients (maximum patient to nurse ratio 3:1).
- Continued to increase volume of long term video EEG monitoring (both EMU and ICU studies)
- Hired 2 new physicians who are fellowship trained in Clinical Neurophysiology/Epilepsy (started in October 2015 and November 2015, respectively).
- Added new ECOE Epilepsy clinic for Dr. Jain (new hire).
- Expanded EMU Nursing Educational series.

Future Initiatives:

- Add additional Epilepsy Clinic for Dr. Rincon (new hire) to help capture workload.
- Expand video-tele health and e-consult capabilities with new hires.
- Establish capabilities for V-Tel for CBT for PNES patients.
- Acquire remote EEG reading capabilities.

Fellowships AY 2016-2017:

Name	Fellowship	ACGME	VA FTE	Start Date	End Date
Christian Robles, MD	Clinical Neurophysiology EEG/Epilepsy Track	Yes	0.33	7/1/2016	6/30/2017
Pooja Patel, MD	Clinical Neurophysiology EEG/Epilepsy Track	Yes	0.33	7/1/2016	6/30/2017
Stephanie MacIver MD	Clinical Neurophysiology EEG/Epilepsy Track	Yes	0.33	7/1/2016	6/30/2017

NATIONAL ECOE WORKGROUPS



Pharmacy Workgroup

Chair: Aatif M. Husain, MD & Kathy Tortorice Admin Support: Pamela Kelly-Foxworth & Winona Finley

Workgroup Members				
Husain, Aatif MD	SE ECoE Director - CoChair	919-416-5982		
Tortorice, Kathy	Clinical Pharmacist – Co-Chair	708-786-7873		
Boucher, Elise	Research Associate	210-617-5300 x15991		
Chiao, Teresa	Pharmacist	415-221-4810 x2927		
Clark, Adam	PharmD	352-548-6000 x4425		
Dergalust, Sunita	PharmD	310-268-3244		
Finley, Winona	SE ECoE Administrative Support Assistant	919-416-5982		
Frontera, Alfred MD	Director, Tampa ECoE	813-972-7633		
Garga, Nina MD	San Francisco ECoE Director	415-221-4810 x4147		
Gidal, Barry	PharmD	608-256-1901		
Kabir, Arif	Physician	410-605-7000 x6633		
Kelly-Foxworth, Pamela	SE ECoE Regional Administrative Director	919-416-5982		
McMillan, Katharine	Researcher	210-617-5300 x17355		
Nguyen, Quynh-Nhu	Pharmacy Resident	415-221-4810 x4375		
Parko, Karen, MD	Neurologist	415-221-4810 x4702		
Poon, Linda Hue-Ma	Clinical Pharmacist	415-221-4810 x4375		
Rehman, Rizwana	SE ECoE Statistician	919-286-0411 x5024		
Rutecki, Paul MD	National ECoE Director	608-256-1901		
Tran, Tung MD	Chief Neurology & ECoE Director (Durham)	919-286-0411 x4663		

FY16 Accomplishments:

- Provided input and recommendations (specific to epilepsy) for national formulary inclusions.
- Completed a study titled Prescribing Trends of AEDs among VHA Providers for Epilepsy Patients.
- Using very stringent criteria for identification of epilepsy patients treated in VHA during FY14, 68,308 patients were identified.

- Update AED physician pocket card with formulary changes.
- Complete Association of AEDs with Antidepressants study.
- Continue to consistently provide input and recommendations for national formulary inclusions.

Clinical Research Workgroup

Chair: Alan Towne, MD, MPH Admin Support: Linda L. Benson, MPH

Workgroup Members				
Alan Towne, Richmond, Chair	Karen Parko, San Francisco	Mary Jo Pugh, San Antonio		
Linda L. Benson, Richmond, Admin	Paul Rutecki, Madison	Katharine K. McMillan, San Antonio		
Curt LaFrance, Providence	Martin Salinsky, Portland	Jackie Pugh, San Antonio		
Hamada Hamid, West Haven	Allan Krumholz, Baltimore	Chris Ransom, Seattle		
Tung Tran, Durham	R. David Andrew, Baltimore	Maria Lopez, Miami		
Rizwana Rehman, Durham				

FY16 Accomplishments:

- Expanded use of national ECoE epilepsy monitoring unit database including TBI variables.
- Pugh Epidemiology of Epilepsy and Traumatic Brain Injury: Severity, Mechanism and Outcomes project awarded.
- LaFrance CBT training at sites for PNES diagnosis.
- Publication policy for data obtained through the ECOE and consortium sites Pugh.
- Continue to obtain normalized volumetric NeuroQuant data from brain MRI's in patients with TBI.
- Towne Co-PI of CENC Epidemiology Project Aim #3.

- Submit co-op study pertaining to chart review of epilepsy and PNES- Salinsky.
- Develop and submit abstract from standardized EMU database.
- Collaborative efforts with CENC to examine TBI and epilepsy.
- Propose research to distinguish symptoms of mild TBI from posttraumatic stress disorder.
- Develop a protocol for dense array EEG guided TMS or TDCS in TBI.

BASIC SCIENCE RESEARCH WORKGROUP

Nikolai Dembrow PhD, Chair VACANT, Administrative Support

Workgroup Members					
Christopher B. Ransom MD, PhD / Seattle	Alan Towne MD / Richmond	Cha-Min Tang MD, PhD / Baltimore			
William Spain MD / Seattle	Robert Kotloski MD, PhD / Madison	Claude Wasterlain MD / Los Angeles			
Nikolai Dembrow PhD / Seattle	Jose Cavazos MD, PhD / San Antonio	Jack Parent MD / Michigan			
Paul Rutecki MD / Madison					

FY15 Accomplishments:

- ECoE Basic Science Workgroup Teleconference calls FY2015
 - "Epigenetics for anti-epileptogenic therapy" Detlev Boison, PhD. Professor, SOM-Neurology Dept. Oregon Health Sciences University.
 - "BidirectionallyModulates Ih and HCN1 Surface Expression in Hippocampal Principal Neurons" – Aaron Williams, PhD. Post-doctoral fellow, Catteral Lab, Dept. of Pharmacology, University of Washington.
 - "Mechanisms of 2DG anti-epileptic effects" Paul Rutecki, MD. Professor, Dept. of Neurology. University of Wisconsin-Madison. Director of VA NW Epilepsy Center for Excellence.
 - "MicroRNA-mediate regulation of the Kv4.2 complex during status epilepticus and in epilepsy" – Nina Gross, PhD. Assistant Professor Division of Neurology, Cincinnati Children's.
 - "Epilepsy and Consciousness" Melanie Boly, MD, PhD. Neurology Department, University of Wisconsin, Madison.
 - "Dentate interneuron desynchronization in chronic epitlepsy" Peyman Golshani, MD, PhD. Associate Professor, Depts. Neurology/Psychiatry. David Geffen School of Medicine, UCLA.
 - "Distorting General Mechanisms of Learning and Memory in Temporal Lobe Epilepsy" – Kimberly Raab-Graham, PhD. Associate Professor, Wake Forest School of Medicine.
 - Workgroup members are actively engaged in basic science research projects; accomplishments are listed by site elsewhere in annual report.
 - Monthly teleconferences with basic science research presentations by VA- and non-VA investigators. These teleconferences have been very well received.
- National audience for teleconferences is expanding.

- Nikolai Dembrow PhD will transition to basic science workgroup chair over the next year with continued assistance from Chris Ransom.
- Continue to expand the national audience with goal of providing richer discussion and new perspectives on basic science topics through broader participation.
- Discuss plans and strategies to develop collaborative research efforts between sites, with focus on TBI-related epileptogenesis using blast-injury or cortical impact models.

Education Workgroup Acting Chair: R. Andrew David

Workgroup Members			
R. Andrew David, Baltimore	Janice Broughton, San Francisco	David Chen, Houston	
Denise Riley, Gainesville	Stephanie Chen ,San Francisco	Mary Jo Pugh, San Antonio	
Nina Garga, San Francisco	Tung Tran, Durham	Pamela Kelly, Durham	
Aatif Husain, Durham	Sean Gamble, EES	Guiomar Scheid, San Francisco	
Winona Finley, Durham	Heather Holshouser, EES	Derecus Slade, Portland	
Karen Parko, San Francisco	Ellen Matthiesen, Houston	Amy Childers, Madison	
Barry Gidal, Madison	Angela Vargas, San Francisco	Maria Lopez. Miami	
Judy Ozuna, Seattle	Angela Young, Durham	David Chen, Houston	
Ann Carncross, Madison	J. Chris Sackellares, Gainesville		

FY16 Highlights and Accomplishments:

- CME Videos: Links to TMS have been added to ECoE website.
- Links to publicly available version (non-CME) website. Videos are on TRAIN website, which is available to DoD & other government partner organizations.

INTRODUCTION TO EPILEPSY:

Introduction to Epilepsy and Traumatic Brain Injury: <u>http://bcove.me/0dulz42h</u> Seizure Identification and Work Up: <u>http://bcove.me/go1rc8bz</u> The Basics of Epilepsy Treatment: <u>http://bcove.me/tob954gl</u>

MENTAL HEALTH AND WELLNESS IN EPILEPSY:

Women & Epilepsy: <u>http://bcove.me/llnr5r0e</u> Epilepsy and Psychiatric Co-Morbidities: <u>http://bcove.me/vyv07v40</u> Sleep & Epilepsy: <u>http://bcove.me/x4mtr1ra</u>

MEDICATION AND EPILEPSY:

Adverse Effects of Epilepsy Medications: <u>http://bcove.me/bho3ho0j</u> New Anti-Epileptic Drugs: <u>http://bcove.me/f2cg7dez</u> Management of Convulsive Status Epilepticus: <u>http://bcove.me/g7d6g6vm</u>

ADVANCED MANAGEMENT OF EPILEPSY:

Non-Epileptic Seizures: Evaluation and Management: <u>http://bcove.me/isdjnroy</u> Medical Refractory Epilepsy: <u>http://bcove.me/kqmdcc5s</u> Epileptogenic Lesions on Brain MRI: <u>http://bcove.me/b8m41dhn</u>

 "Basic Training" YouTube videos: Released Medications. All links on website. <u>https://www.youtube.com/watch?v=yx45kHDoEqo&list=PL3AQ_JVoBEyzDfAHEptumOPB-PFTH_ya-</u>

- Veterans and Epilepsy: Basic Training: Epilepsy & TBI
- Veterans and Epilepsy: Basic Training: Diagnosis
- Veterans and Epilepsy: Basic Training: Psychosocial Issues
- Veterans and Epilepsy: Basic Training: Medications
- Veterans and Epilepsy: Basic Training: Seizure First Aid

- Safety in EMU Video: undergoing process of re-accreditation.
- Release additional videos 2 in post-production and editing (Surgery & PNES).

Nursing Workgroup

Chair: Judy Ozuna Admin Support: R. Andrew David FY 2016

Members				
Judy Ozuna, Seattle - Chair	Yvonne Davila, San Antonio	Carol Riley- Boston		
Stephanie Chen, San Francisco	Katherine McMillan, San Antonio	Kathy Browning, Richmond		
Heather Hodges, Richmond	Ann Carncross, Madison	Frank Smith, Seattle		
Pamela Kelly, Durham	Regina McGuire, Baltimore	Elise Boucher, San Antonio		
Ronda J Tschumper, Madison	Elizabeth Aprile, Charleston	Sharon Bottomley, West Haven		
Natalya Kan, West LA	Greg Head, Boston	Denise Riley, Gainesville		
Natacha Jean-Noel, Richmond	Nikki Caraveo, Kansas City	Kim Heckman, Minneapolis		
Esmeralda Sanchez, San Antonio				

FY16 Accomplishments:

- Completed consensus guidelines for vital signs and use of restraints in Epilepsy Monitoring Units.
- Compiled Epilepsy Education Resources Table (includes programs, publications, materials etc. from VA Epilepsy Centers of Excellence, American Epilepsy Society, American Association of Neuroscience Nurses and distributed it to these organizations for their websites.

- EMU Safety: Include EMU safety guidelines for vital signs and restraints, iMed consent and nursing issues in the ECoE Handbook
- Develop an epilepsy nursing curriculum for EMU and outpatient nursing

Women Veterans Focus Workgroup

Chair: Anne C. Van Cott Admin Support: Pamela Kelly-Foxworth, Winona Finley

Workgroup Members							
Dergalust, Sunitra	Kelly-Foxworth, Pamela	Pugh, Mary Jo					
Felton, Elizabeth	Lopez, Maria	Pritchard, Jennifer					
Finley, Winona	Nguyen, Ouynh-Nhu	Rehman, Rizwana					
Garga, Nina	Parko, Karen	Tortorice, Kathy					
Gidal, Barry	Patel, Jignasa	Van Cott, Anne (Chairperson)					
Gowda, Shaila	Poon, Linda Hue-Ma						
Hamid, Hamada							

FY16 Accomplishments:

- Expanded Workgroup membership to incorporate stakeholders from affiliate and for a more complete interdisciplinary representation.
- Began Education Project to create women focused AED physician pocket card and general information booklet that addresses unique issues associated with the treatment of women diagnosed with epilepsy.
- Contributed to the ECoE article written for publication in the Federal Practitioner.
- Begin epidemiology surveillance project to obtain better understanding of the population of Women Veterans diagnosed with epilepsy.
- Contributed to the development of a counseling template that highlights specific women concerns as related to treatment of epilepsy.
- Began project to look at practices to access bone health, with intent to offer recommendations and guidelines toward standardization within the ECoE and throughout Veteran Affairs health care centers.

- Continue to expand workgroup membership in efforts to establish interdisciplinary and geographically diverse membership
- Complete Anti- Epileptic Drug physician pocket card that highlights concerns specific to the care of Women living with epilepsy.
- Complete surveillance project to determine number and distribution of Women Veterans living with epilepsy and seeking care with physicians at the Veteran Healthcare Administration. Information expected to be key to decisions to target education resources.
- Contribute to the update and new version of the CPRS counseling template designed for usage in the diagnosis and treatment of women veteran experiencing symptoms that are consistent with an epilepsy diagnosis.
- Complete review of practices to assess bone health of women Veterans prescribed AED with intent to offer recommendations toward standardization of practice within the ECoE.

EEG Technologist Workgroup Chair: Ronda Tschumper Admin Support: Ronda Tschumper

National Administrative Officer - Vacant

NW Acting AO – NE AO -		SE AO - Vacant	nt SE AO –	
Ronda Tschumper	Andrew David		Pamela Kelly	
NORTHWEST	NORTHEAST	SOUTHWEST	SOUTHEAST	
Madison	Baltimore	Albuquerque	Durham	
Ronda Tschumper	James Coleman	Robert Spears	Margaret Young	
Mary Maier		Katharine McMilan	Josie Brame	
Vonda Elmer			Susan Hayes	
Joan Schultz		Lisa Si		
Minneapolis	Richmond	Houston	Gainesville	
Melanie Seal	Christopher Madson	Betty Calahan	Scott Bearden	
Yuliya Volkov	Brenda Robert-Wilson	Phenita Groves	Paula Crew	
	Katherine Brewer	Harold Walker	Donna Horton	
		Debra Dennis		
		Rodney Hall		
Portland	West Haven	San Antonio	San Antonio Miami	
Michael Wilson	George Gregoire		Rosario Carballo	
Bryanna Liles	James Vera		Michael Perez	
	Dominica Rodriguez			
Seattle		San Francisco		
Debra Perkins		Janice Broughton		
Larissa Ronich		Jeffrey Reznic		
		W. Los Angeles		
		Denise Robinson		
		Joaquin Barreda		

CONSORTIUM

Boise	Hines	Jesse Brown	Iron	<mark>Little Rock</mark>	Orlando	Tampa
			Mountain			
Michael	Paz	Mary Ocansey	Patty	Corena Johnson	Steven	Christopher
Brown	Martinez		Leatherman		Castaneda	Holt
		Victor Cabrales	Bennett	LaRae Bearden		
			Roongrote			
Cleveland	No. Chicago	Milwaukee	Kansas City	Fayetteville	Stratton	
Galina	Valerie	Juba Mattice	Mary	Debra Goozner	Tarita Owens	
Khutoryan	Krasne		Spalding			
FY16 Accomplishments:

- VA ECoE Table at Mall of America in Minneapolis, Minnesota for Purple Day (March 19, 2016). Dr. Rutecki, Dr. Holloway, Ryan Rieger, Andrew David, Ronda Tschumper – Cassidy Megan (Founder of Purple Day).
- 2016 ASET VA Technologist Meeting/Dinner 4 Regions Represented Northwest: Ronda Tschumper (Madison) and Mary Ocansey (Jesse Brown) Northeast: Dominica Rodriguez (Connecticut) Southwest: Janice Broughton (San Francisco) Southeast: Margaret Young (Durham) and Michael Perez (Miami)
- Incorporated case studies with each call for continuing learning opportunities and discussing "Best Practices."
- Introduced ABRET standardization policy and procedures for EEG and LTM (Following the American Clinical Neurophysiology Society Guidelines).
- Worked with other ECoE sites regarding appropriate PSB recommendations.
- Several Technologists asking for Educational Materials EEG and LTM Registration.

Future Initiatives / FY17 Goals:

- Develop National SOPs for EEG and EMU procedures.
- Continued efforts to increase consortium and non-consortium site involvement.
- Continued efforts to provide and discuss information for MIT Registration in EEG and LTM.

Mental Health Workgroup

Chair: Hamada Hamid Altalib, DO Admin Support: R. Andrew David

Workgroup Members		
Altalib, Hamada Hamid (Chair)	Jung, Yoon	Marceaux, Janice
David, R. Andrew (Admin)	Krumholz, Allan	Parko, Karen
Bottomley, Sharon	LaFrance, Curt	Rutecki, Paul
Chen, David	Lopez, Maria	Spencer, Janet

FY16 Accomplishments:

- Integrating Mental Health, Psychogenic Non-Epileptic Seizure Treatment, Psychogenic Non-Epileptic Seizure Practice Workgroups were combined in FY16 to create Mental Health Workgroup.
- Dr. LaFrance has continued training ECoE members in Cognitive Behavioral Therapy for Psychogenic Non-Epileptic Seizures (CBT for PNES) with three individual trained this fiscal year.
- Began offering tele-CBT for Seizures as a complementary epilepsy therapy.
- Developed and disseminated PNES services brochures for distribution within VA healthcare system.
- Held five journal club meetings as part of recurring workgroup meetings as an educational initiative.
- Ongoing research into PNES and comorbid mental health conditions by workgroup members
 - Multi-site group CBT pilot
 - Epidemiology of PNES in VA
 - Surgical outcomes and psychiatric comorbidities

Future Initiatives:

- Train three additional providers to conduct CBT for PNES and epilepsy in ECoE network in FY17.
- Establish at least one mental health provider (champion) in each ECoE to provide mental health services.
- Monitor progress towards recommendations in FY15 Mental Health Services White Paper.

PUBLICATIONS/PRESENTATIONS

NORTHEAST Region

Baltimore

Publications / Manuscripts / Chapters:

Gloss DS & Krumholz A. (2016)..Managing an Unprovoked First Seizure in Adults.*CNS Drugs. 30*:179-83.

Konikkara J, Tavella R, Willes L, Kavuru M,& Sharma S.(2016). Early recognition of obstructive sleep apnea in patients hospitalized with COPD exacerbation is associated with reduced readmission. *Hosp Pract* 44(1):41-7.

Krumholz A, Hopp JL, & Sanchez AM.(2016). Counseling Epilepsy Patients on Driving and Employment *Neurol Clin.* 34:427-42.

Krumholz A, Wiebe S, Gronseth GS, Gloss DS, Sanchez AM, Arif A. Kabir, MD, Liferidge, AT, Martello JP, Kanner AM, Shinnar S, Hopp JL,& French JA. (2015). Evidenced-based guideline: Management of an unprovoked seizure in adults: Report of the Guideline Development Subcommittee of the American Academy of Neurology and the American Epilepsy Society. *Neurology 84*:1705-1713

Abstracts / Posters / Presentations:

Pritchard, Jennifer & Srikanth Mysore, Channaiah.(December,2015). Retrospective Study of Continuous EEG Patterns in 50 Patients Admitted to the Neurological Intensive Care Unit at University of Maryland Medical Center. American Epilepsy Society Annual Meeting, Philadelphia, PA.

Krumholz, A. (December, 2015). Driving Accidents in the News. What is Role with the Motor Vehicle Administration. Symposium on Diagnostic Issues and the Media. American Epilepsy Society, Philadelphia, PA.

Krumholz A. (2015). Update on Driving and Epilepsy. Maryland Epilepsy Group, Baltimore, MD.

Krumholz A,(2016). Management of a First Seizure in Adults. Neurology Grand Rounds University of Maryland Medical School of Medicine, Baltimore, MD.

Krumholz A. (2016). Epilepsy Then and Now: My 40 Years' Experience. Town and Gown Symposium, Department of Neurology, University of Maryland School of Medicine,

Ting TY, Jiang W, Lionberger R, Wong J, Jones JW3, Kane MA, Krumholz A, Temple R, & Polli JE. (2015). Generic lamotrigine versus brand-name Lamictal bioequivalence in patients with epilepsy: A field test of the FDA bioequivalence standard. *Epilepsia*. 2015 Jul 23. doi: 10.1111/epi.13095.

Richmond

Publications / Manuscripts / Chapters:

Kenichiro Ono DO, Victor Gonzalez-Montoya MD, & Soundarya Nagaraja-Gowda MD(June, 2016). "Integrating Newer Techologies to Guide Minimally Invasive Epilepsy Surgery" 9th International Epilepsy Colloquium – Surgical and Targeted Treatments for Acquired Lesions. Westminster, London.

McMillan JT, Jones E, Barnhart B, Denninghoff K, Spaite D, Zaleski E,& Silbergleit R, for the NETT Investigators/Towne A (Investigator Richmond, Virginia) (2016).. Degradation of benzodiazepines after 120 days of EMS deployment, Prehospital Emergency Care. Jul-Sep, Vol. 18, No 3, 368-374.

Ryan MS, Bishop S, Browning J, Anand RJ, Waterhouse E, et al. (2016). Are Scores from NBME Subject Examinations valid measures of knowledge acquired during clinical clerkships? Submitted, *Academic Medicine*.

Waterhouse EJ. (2015). Ictal Cognitive Impairments Due to Nonconvulsive Status Epilepticus. In: Epilepsy and the Inter-Ictal State: Comorbidities and Quality of Life in Epilepsy. St Louis EK, Ficker DM, O'Brien TJ (Eds). Wiley-Blackwell.

Waterhouse EJ(June, 2016). Instrumentation and Polygraphic EEG. In: Ambulatory EEG, Tatum W (Ed). Demos Publishing. In Press.Westminster, London.

Vohra TT, Miller JB, Nichols KS, Varelas PN, Harsh DM, Durkalski V, Selbergleit R, & Wang HE, for the NETT Investigators/Towne A (Richmond, Virginia).(2015). Endotracheal Intubation in Patients Treated for Prehospital Status Epilepticus. *Neurocrit Care.* 23(1): 33–43.

Abstracts / Posters / Presentations:

Ono, K. (5/24/16). *EEGenes-Putting the pieces together,* The 44th Annual Hans Berger Clinical Neurophysiology Symposium, Richmond, Virginia.

Ono, K. (8/19/16) Understanding Neurological Dilemmas-Case Studies to learn by, National VA Scan Echo Neurology Lecture.

Ono, K. (9/16/16). Judgement Calls in the state of the art of stroke care, National VA Scan Echo Neurology Lecture.

Towne, A. (09/29/16). Epilepsy and Traumatic Brain Injury. AACN Conference, Williamsburg, VA,

Towne, A. (5/24/16). *New Horizons in Dense Array EEG*. The 44th Annual Hans Berger Clinical Neurophysiology Symposium, Richmond, Virginia.

Towne, A. (05/13/16). *Epilepsy and Traumatic Brain Injury* Spinal Cord Service Grand Rounds, Richmond Virginia,

Towne, A. (04/15/16). *Neurological Sequelae of Traumatic Brain Injury in OEF/OIF Veterans*, National VA Specialty Care Access Network Lecture.

Towne, A. (10/21/15) *Post-Traumatic Epilepsy in the Military,* National VA Specialty Care Access Network Lecture.

Towne, A. (10/08/15). *Traumatic Brain Injury and Epilepsy in Veterans*, National VA Scan Echo Neurology Lecture,

Waterhouse, E. (April, 2016). Epilepsy Skills Workshop, American Academy of Neurology.

Waterhouse, E. (May, 2016). Name that Pattern, Hans Berger Clinical Neurophysiology Symposium.

Waterhouse, E. (2016). Current Treatment Options in Neurology, Epilepsy Section Editor

Vu, Thuy-Anh MD☆, Ono, Kenichiro DO☆, Gonzalez Montoya, Victor MD☆,Gowda, Soundarya N. MD☆& Morton, Lawrence D. MD☆ (December, 2015). *EEG Findings in Pediatric Patients with Immune Mediated Encemphalitis* 69th Annual Meeting of the American Epilepsy Society Philadelphia, PA.

West Haven

Publications / Manuscripts / Chapters:

Gauthier AC, Quraishi IH, & Mattson RH.(2016). Hypothermia associated with clobazam use in adult epilepsy. *Epil. Behav. Case Rep* 5:17-18.

Abstracts / Posters / Presentations:

Quraishi IH, Couture RL, Kronengold JK, Kim GE, Barcia G, Nabbout R, Schwartz ML, & Kaczmarek LK. (November, 2015). Characterization of KCNT1-associated epilepsy and behavior. Yale epilepsy research symposium. Madison, CT.

Quraishi IH, Kronengold J, Kaczmarek, LK (2015) Kinetic models of Slack channel function confirm cooperative gating in Slack-associated epilepsy mutations. Society for Neuroscience 2015 Annual Meeting.

Quraishi IH, Kronengold JK, Kim GE, Couture RL, Schwartz ML, Kaczmarek LK (2015) Mechanisms of epileptic encephalopathy due to KNCT1 (Slack) mutations. American Epilepsy Society 2015 Annual Meeting.

NORTHWEST Region

Madison

Publications / Manuscripts / Chapters:

Bancke LL, Dworak HA, Rodvold KA, Halvorsen MB, & Gidal BE.(Nov. 2016). Pharmacokinetics, pharmacodynamics, and safety of USL261, a midazolam formulation optimized for intranasal delivery, in a randomized study with healthy volunteers. *Epilepsia*. *56*(11):1723-31.

Bergey, G K, Morrell, M, Mizrahi, ... Van Ness, P, Fountain, N, Rutecki, P, Massey, A, O'Donovan, C, Labar, D, Duckrow, R, Hirsch, L, Courtney, T, Sun, F, & Seale, C. (2015) Long-term treatment with responsive brain stimulation in adults with refractory partial seizures. *Neurology* 84:1-8.

Calkins AM, Gudin J, Gidal B, Jaros MJ, Kim R, & Shang G.(2016). Impact of Data Imputation Methodology on Pain Assessment over 24 Hours in a Randomized, Placebo-Controlled Study of Gabapentin Enacarbil in Patients with Neuropathic Pain Associated with Postherpetic Neuralgia. *Pain Med. 2016 Jan 6.* pii: pnv072. [Epub ahead of print]

Gefroh-Grimes HA, & Gidal BE.(Jan, 2016). Antiepileptic drugs in patients with malignant brain tumor: beyond seizures and pharmacokinetics. *Acta Neurol Scand 133*(1):4-16.

Gilda BE, Laurenza A, Hussein Z, Yang H, Fain R, Edelstein J, Kumar D, & Ferry J. (May, 2015). Perampanel efficacy and tolerability with enzyme-inducing AEDs in patients with epilepsy. *Neurology 84*(19):1972-80.

Gidal BE. (Jan-Feb, 2016) Generic Substitution of AEDs: Is it Time to Put This Issue to Rest? *Epilepsy Curr. 16*(1):18-20.

Johnson EL, Chang YT, Davit B, Gidal BE, & Krauss GL. (2016) Assessing bioequivalence of generic modified-release antiepileptic drugs. *Neurology 86*(17):1597-604.

Kotloski RJ, & Sutula TP. (2015) Environmental enrichment: evidence for an unexpected therapeutic influence. *Exp Neurol. 2015 Feb; 264*:121-6. doi: 0.1016/j.expneurol.2014.11.012. *Epub 2014 Dec 4*.

King-Stephens D, Mirro E, Weber PB, Laxer KD,, Rutecki PA, Fountain NB, Wharen RE, Hirsch LJ, Miller IO, Barkley GL, Edwards JC, Geller EB, Berg MJ, Sadler TL, Sun FT, & Morrell MJ. (2015) Lateralization of mesial temporal lobe epilepsy with chronic ambulatory electrocorticography. *Epilepsia. 56*(6):959-67. doi: 10.1111/epi.13010. *Epub 2015 May 19.* PMID: 2598884

Kwan P, Brodie MJ, Laurenza A, FitzGibbon H, & Gidal BE.(Nov., 2015). Analysis of pooled phase III trials of adjunctive perampanel for epilepsy: Impact of mechanism of action and pharmacokinetics on clinical outcomes. *Epilepsy Res. 117*:117-24.

Pizarro R1, Nair V, Meier T, Holdsworth R, Tunnell E, Rutecki P, Sillay K, Meyerand ME, & Prabhakaran V. (2016) Delineating potential epileptogenic areas utilizing resting functional magnetic resonance imaging (fMRI) in epilepsy patients. *Neurocase. Aug;22*(4):362-8. doi: 10.1080/13554794.2016.1195845. *Epub 2016* Jun 30.

Privitera MD, Welty TE, Gidal BE, et al. (2016) Generic-to-generic lamotrigine switches in people with epilepsy: the randomised controlled EQUIGEN trial. *Lancet Neurol.* 15(4):365-72.

Rutecki PA & Sutula TP (2016) Hippocampal abnormalities and sudden childhood death. *Forensic Sci Med Pathol.*

Salinsky M, Parko K, Rutecki P, Boudreau E, & Storzbach D. (2016) Attributing seizures to TBI: Validation of a brief patient questionnaire. *Epilepsy Behav.* 2016 Apr;57(Pt A):141-4. doi: 10.1016/j.yebeh.2016.02.003. *Epub 2016* Mar 5.

Struck AF, Beinlich BR, & Rutecki PA. (2015) A case of celiac disease, epilepsy, and cerebral calcifications with temporal lobe epilepsy. WMJ. 14(3):116-7.

Abstracts / Posters / Presentations:

Berg, Michel; Privitera, Michael; Diaz, Francisco; Dworetzky, Barbara; Elder, E; & Gidal, Barry. (2015). *EQUIvalence among GENeric AEDs (EQUIGEN): Single-dose study*. AES annual meeting 2015

Constantino, Tawnya; Gidal, Barry; Mintzer, Scott; Grinnell,Todd; Blum, David & Cheng, Hailong.(2015). *Markers of Bone Turnover and Lipid Metabolism During Eslicarbazepine Acetate (ESL) Monotherapy, in Patients Taking or not Taking Enzyme-Inducing Antiepileptic Drugs (EIAEDs) at Baseline*. AES annual meeting 2015.

Gidal,Barry; Wechsler, Robert; Krauss,Gregory; Ferry, Jim; Rege, Bhaskar; Bibbiani, Francesco; Patten, Anna; Williams, Betsy; Yang, Haichen; & Hussein, Ziad.(2015). *Model-predicted relationships between perampanel plasma concentrations and efficacy for partial-onset seizures (POS) and primary generalized tonic-clonic (PGTC) seizures.* AES annual meeting 2015

Hegde, Manu; McKenna, Kevin; Singh, Rani; Boro, Alex; Mays, Vickie; Klein, Pavel; French, Jacqueline; Dlugos, Dennis; & Gidal, Barry (2015). *The Predictive Value of EEG and MRI in Antiepileptic Drug Response in Newly Treated Focal Epilepsy: Interim Findings from The Human Epilepsy Project*. AES annual meeting 2015.

Jobst B, Kapur R, Barkley G L, Rutecki P, C. Skidmore, D. Spencer, W. Tatum, R. Wharen, G. Worrell, & M. Morrell. (2015). 1.060 *Long-term outcome of adults with medically intractable frontal lobe seizures treated with responsive neurostimulation*. 2015 AES meeting

Kotloski R ; Rutecki P; & Sutula, T. (2015) 2.046 *Genetic background influences electrophysiologic activity in the setting of acute TBI.* 2015 AES meeting

Krauss, Gregory; Wechsler, Robert; Gidal, Barry; Bibbiani, Francesco; Patten, Anna; Williams, Betsy; Yang, Haichen; & Hussein, Ziad. (2015). *Pharmacokinetics of adjunctive perampanel in patients with partial-onset seizures or primary generalized tonic-clonic seizures in idiopathic generalized epilepsy: pooled data from four randomized, double-blind Phase III studies*. AES annual meeting 2015

Sankar,R.; Gidal,B. E.; Wechsler,R.; Montouris, G.; White, S.; Cloyd, J. C.; Peng,G.; Tworek, D. M.; Shen,V.; Isojarvi, J. (2015). *Deconstructing Tolerance with Clobazam: Post Hoc Analyses from an Open-Label Extension Study.* AES annual meeting 2015

Ueno, T.; Gidal, B.; Kikuchi, K.; & Ferry, J. (2015). *Protein Binding of Perampanel in Human Plasma: Does Protein-Binding Displacement Occur?* AES annual meeting 2015 Pan Y, Sutula T, & Rutecki P.(2015). 3.247 2DG reduces abnormal hippocampal network synaptic excitability without changing membrane properties. 2015 AES meeting

Van Ness P, Mizrahi E, ...Rutecki P, Herekar, A., Duckrow, R., Crowder Skarpaas, T., Kapur, R., & Morrell, M.(2015). 2.172 Long-term Outcome of Adults with Medically Intractable Mesial Temporal Lobe Seizures Treated with Responsive Neurostimulation. 2015 AES meeting

Minneapolis

Abstracts / Posters / Presentations:

Lewis S, Foster L, Chorn G, Meekins G, & Georgopoulos A. (2016). *Magnetoencephalography as a biomarker for the diagnosis of amyotrophic lateral sclerosis*. Minneapolis VA Research Day 2016.

Portland

Publications / Manuscripts / Chapters:

Ernst, L., & Boudreau, EA. 2016. Recent Advances in Epilepsy Management. *Current Opinion in Anesthesiology.* Accepted July 2016.

King-Stephens D, Mirro E Weber P...Spencer DC et al (2015) Lateralization of mesial temporal lobe epilepsy with chronic ambulatory electrocorticography. *Epilepsia 56*(6): 959-967.

Quigg M, Sun F, Fountain NB, Jobst BC, Wong VSS, Mirro E, Brown S, & Spencer DC (2015) Interrater reliability in interpretation of electrocorticographic seizure detections of the responsive neurostimulator. *Epilepsia 56*(2):968-971.

Salinsky M, Parko K, Rutecki P, Boudreau E, & Storzbach D. 2016. <u>Attributing seizures to TBI:</u> <u>Validation of a brief patient questionnaire</u>. *Epilepsy Behav. 7*(Pt A):141-4. April 2016.

Salinsky M, Storzbach D, Goy E, Kellogg M, & Boudreau E. 2016. Health care utilization following diagnosis of psychogenic nonepileptic seizures. *Epilepsy Behav.* 60:107-11. July 2016.

Spencer DC, Sun FT, Brown SN, Jobst BC, Fountain NB, Wong VS, Mirro EA, & Quigg M (2016) Circadian and ultradian patterns of epileptiform discharges differ by seizure-onset location during long-term ambulatory intracranial monitoring. *Epilepsia* Jul 11. doi: 10.1111/epi.13455. [Epub ahead of print]

Spencer DC (2016) *Navigating Life with Epilepsy*. Oxford University Press, 312 pp, ISBN: 9780199358953

Wong V, & Salinsky M (2016). Neurologic and medical factors: in Dworetsky B, Baslett G. (eds.) <u>Psychogenic Seizures</u>; 2016 in press

Seattle

Publications / Manuscripts / Chapters:

Ozuna J, Stecker M, Walter S, Maytum J, & Krause A. (August, 2016). Care of Adults and Children with Epilepsy. Clinical Practice Guideline, American Association of Neurosciences Nurses, online publication.

Ozuna J, Pleuger M, Smith G, & Labelle-Scarfo D.(n.d.). Epilepsy education resources for health care providers and nurses. Joint project with American Epilepsy Society and American Association of Neuroscience Nurses to develop a table containing programs developed by these associations and the VA Epilepsy Centers of Excellence – available online at each groups' websites.

Abstracts / Posters / Presentations:

Dembrow NC, Newkirk GS, & Spain WJ. (2015) Integration of synaptic input during active firing in the L5 pyramidal neurons of mouse motor cortex. Society for Neuroscience 2015: 294.12/B15.

Dembrow, N, C. (2016). Invited speaker as the Henry Schroeder Visiting Scientist: Physiology and Neurobiology Seminar Series, May 4th, 2016. Darmouth School of Medicine. *How the intrinsic properties of cortical pyramidal neurons govern the timing of synaptic integration: a reminder of how dendrites matter*

Newkirk GS, Pathak D, Dembrow NC, Foehring RC, Spain WJ. (2015) The roles of Kv2 channels in regular and burst firing of action potentials in layer 5a and 5b neocortical pyramidal neurons. Society for Neuroscience 2015: 577.13/C14.

Ozuna J. (November, 2015). *Seizures in Critical Care*, for Northwest (greater Seattle) Critical Care Consortium.

Ozuna, J. (n.d.). Use of Antiepileptic Drugs for Other Conditions – UW CNE Neuropsychotroptic Drug Conference, Lynnwood, WA.

Ozuna, J.(n.d.). *Neurologic Assessment" and "Seizures* – Certified Neuroscience Registered Nurse Review Course, Seattle, WA.

Ransom C. (5/2015). *Tuning the tone of extrasynaptic GABA_A receptors*. Neurology Grand Rounds, University of Iowa.

Ransom, C. (9/2016). Ascending arousal system and autonomic functions of the brainstem, Neurology Grand Rounds, University of Washington.

Ransom, C. (9/2016). *Ambient GABA and the regulation of tonic inhibition*. Epilepsy Research Conference, Harborview Medical Center.

SOUTHEAST Region

Publications / Manuscripts / Chapters:

Rehman, R., Kelly, P., Husain, A., and Tran, T. (2015). Characteristics of veterans diagnosed with seizures within the Veterans Health Administration. Journal of Rehabilitation Research & Development (JRRD). 52(7). 751-762. doi: 10.1682/JRRD.2014.10.0241

Rehman, R., Everhart, A., Frontera, AT., Kelly, PR., Lopez, M., Riley, D., Sajan, S., Schooff, DM., Tran, TT., & Husain, AM. (2016). Implementation of an established algorithm and modifications for the identification of epilepsy patients in the Veterans Health Administration. Epilepsy Research. Nov;127:284-290. doi: 10.1016/j.eplepsyres.2016.09.012.

Durham

Publications / Manuscripts / Chapters:

Foreman B, Mahulikar A, Tadi P, Claassen J, Szaflarski J, Halford JJ, Dean BC, Kaplan PW, Hirsch LJ, & LaRoche S; Critical Care EEG Monitoring Research Consortium (CCEMRC)(2016,Feb). Generalized periodic discharges and 'triphasic waves': A blinded evaluation of inter-rater agreement and clinical significance. *Clinical Neurophysiol. 127*(2):1073-80.doi.10.1016/j.clinph.2015.07.018.Epub 2015 Aug 7. PMID:26294138 [PubMed – indexed for MEDLINE]

Lee JW, LaRoche S, Choi H, Rodriguez Ruiz AA, Fertig E, Politsky JM, Herman ST, Loddenkemper T, Sansevere AJ, Korb PJ, Abend NS, Goldstein JL, Sinha SR, Dombrowski KE, Ritzl EK, Westover MB, Gavvala JR, Gerard EE, Schmitt SE, Szaflarski JP, Ding K, Haas KF, Buchsbaum R, Hirsch LJ, Wusthoff CJ, Hopp JL & Hahn CD; Critical Care EEG Monitoring Research Consortium (CCEMRC) (2016, Apr). Development and Feasibility Testing of a Critical Care EEG Monitoring Database for Standardized Clinical Reporting and Multicenter Collaborative Research. *J Clin Neurophysiol.* 33(2):133-40. Doi:10.1097/WNP.0000000000230. No abstract available. PMID: 26946901 [PubMed – in process]

Sinha SR, Sullivan L, Sabau D, San-Juan D, Dombrowski KE, Halford JJ, Hani AJ, Drislane FW, & Stecker MM. (2016, Aug). American Clinical Neurophysiology Society Guideline 1: Minimum Technical Requirements for Performing Clinical Electroencephalography. *J Clin Neurophysiol.* 33(4):303-7. Doi:10.1097/WNP.000000000000308. No abstract available. PMID: 27482788 [PubMed – in process]

Swisher CB, White CR, Mace BE, Dombrowski KE, Husain AM, Kolls BJ, Radtke RR, Tran TT, & Sinha SR (2015, Aug). Diagnostic Accuracy of Electrographic Seizure Detection by Neurophysiologists and Non-Neurophysiologists in the Adult ICU Using a Panel of Quantitative EEG Trends. *J Clin Neurophysiol.* 32(4):324-30. Doi:10.1097/WNP.000000000000144. PMID: 26241242 [PubMed – indexed for MEDLINE]

Abstracts / Posters / Presentations:

Rehman, R., Frontera, A., Kelly, P., Lopez, M., Riley, D., Sajan, S., & Husain, A. (2015). *Prevalence of Epilepsy in the VHA. P076 AES*

Gainesville

Publications / Manuscripts / Chapters:

Bergey GK, Morrell MJ, Mizrahi EM, Goldman A, King-Stephens D, Nair D, Srinivasan S, Jobst B, Gross RE, Shields DC, Barkley G, Salanova V, Olejniczak P, Cole A, Cash SS, Noe K, Wharen R, Worrell G, Murro AM, Edwards J, Duchowny M, Spencer D, Smith M, Geller E, Gwinn R, Skidmore C, Eisenschenk S, Berg M, Heck C, Van Ness P, Fountain N, Rutecki P, Massey A, O'Donovan C, Labar D, Duckrow RB, Hirsch LJ, Courtney T, Sun FT,& Seale CG. (February, 2015). Long-term treatment with responsive brain stimulation in adults with refractory partial seizures. *Neurology.* 84(8):810-7.

Halford JJ, Shiau D, Desrochers JA, Kolls BJ, Dean BC, Waters CG, Azar NJ, Haas KF, Kutluay E, Martz GU, Sinha SR, Kern RT, Kelly KM, Sackellares JC, & LaRoche SM.(September, 2015). Interrater agreement on identification of electrographic seizures and periodic discharges in ICU EEG recordings. *Clin Neurophysiol. 126*(9):1661-9.

King-Stephens D, Mirro E, Weber PB, Laxer KD, Van Ness PC, Salanova V, Spencer DC, Heck CN, Goldman A, Jobst B, Shields DC, Bergey GK, Eisenschenk S, Worrell GA, Rossi MA, Gross RE, Cole AJ, Sperling MR, Nair DR, Gwinn RP, Park YD, Rutecki PA, Fountain NB, Wharen RE, Hirsch LJ,

Miller IO, Barkley GL, Edwards JC, Geller EB, Berg MJ, Sadler TL, Sun FT,& Morrell MJ.(Jun.,2015). Lateralization of mesial temporal lobe epilepsy with chronic ambulatory electrocorticography. *Epilepsia. 56*(6):959-67.

Miami

Publications / Manuscripts / Chapters:

Ebong IM, Lopez MR, Valle J,& Wallace DM. (2016) A 67-Year Old Man who Repeatedly Jabs his Wife during Sleep. *J Sleep Med Disord 3*(3): 1047.

Lizaraga KJ, Lopez MR, & Singer C. (2015). Reversible craniocervical dystonia associated with levofloxacin. Journal of Clinical movement disorders.

Abstracts / Posters / Presentations:

Ebong I, Lopez M, & Wallace D.(2016). A 67-Year Old Man who Repeatedly Jabs his Wife during Sleep. AAN 2016.

Lopez MR et al. (2015). Prevalence of Epilepsy in the Veterans Health Administration. AES 2015.

Lopez MR & Kanner AM. (2015). Treatment of Depression and Anxiety disorders in Veterans with epilepsy. Why aren't patients getting better? AES 2015.

Rey, GJ, & Lopez ML et al. (2015). *Neurocognitive outcomes following MRI-Guided Laser ablation of Mesio-temporal structures*. AES 2015.

Tampa

Publications / Manuscripts / Chapters:

Benbadis SR, Ewen JB, Schreiber JM, & Trescher WH. (January, 2015). Variations in EEG discharges predict ADHD severity within individual Smith-Lemli-Opitz patients. *Neurology 84*(4):436. doi: 10.1212NVNL.000000000001173.

Benbadis SR.(2015). The timing of continuous EEG in critically ill patients. Stat? ASAP? Routine? *J Olin Neurophysiol* Jul 16.

Benbadis SR. What type of EEG (or EEG-video) does your patient need? Expert Rev Neurother 2015;15:461-4.

Eichstaedt KE, Soble JR, Kamper JE, Bozorg AM, Benbadis SR, Vale FL, & Schoenberg MR. Sex differences in lateralization of semantic verbal fluency in temporal lobe epilepsy. *Brain Lang* 141:11-5.

McCoy B, & Benbadis SR, (2015). *Psychogenic Attacks and Epilepsy. In: The Interictal State in Epilepsy: Co-morbidities and Quality of Life*, Eds. St. Louis EK, Ficker DM, O'Brien TJ, John Wiley and Sons, Oxford, UK, 2015, pp.183-191.

Rizwana R, Everhart A, Frontera A, Kelly P, Lopez M, Riley D, Sajan S, Schooff D, Tran T, & Husain A. (2016). Implementation of an Established Algorithm and Modifications for the Identification of Epilepsy Patients in the Veterans Health Administration. *Epilepsy Research*.

Suradi YM, Algreeshah FS, Rincon-Flores N,& Benbadis SR. (2015). Mystery case: sawtooth waves: another normal variant not to over-read as epileptiform discharges. *Neurology 84*(12):e878. doi: 10.1212/VVNL.00000000001386.

Tatum WO, Dionisio JB, & Vale FL. (2015). Subdural electrodes in focal eibilepsy surgery at a typical academic epilepsy center. *J Olin Neurophysiol* 32:139-46.

Yehl J, Klippel C, Frontera AT, & Kozel A. (n.d.) Differentiating symptoms of bipolar disorder from temporal lobe epilepsy. *Epilepsy & Behavior Case Reports*. In Press.

Abstracts / Posters / Presentations:

Khan T, Gandy C, Robertson D, & Frontera AT. (January, 2016). Spinal Dural Arteriorvenous Fistula Related Myelopathy. Presented at the American Society of Neuroimaging Annual Meeting.

SOUTHWEST Region

Houston

Publications / Manuscripts / Chapters:

Bergey GK, Morrell MJ, Mizrahi EM, Goldman A, King-Stephens D, Nair D, Srinivasan S, Jobst B, Gross RE, Shields DC, Barkley G, Salanova V, Olejniczak P, Cole A, Cash SS, Noe K, Wharen R, Worrell G, Murro AM, Edwards J, Duchowny M, Spencer D, Smith M, Geller E, Gwinn R, Skidmore C, Eisenschenk S, Berg M, Heck C, Van Ness P, Fountain N, Rutecki P, Massey A, O'Donovan C, Labar D, Duckrow RB, Hirsch LJ, Courtney T, Sun FT, & Seale CG (Feb., 2015). Long-term treatment with responsive brain stimulation in adults with refractory partial seizures. *Neurology. 84*(8):810-7.

Bryant M, S., Hou, J. G., Collins, R. L., & Protas, E. J (May, 2016). Contribution of axial motor impairment to physical inactivity in Parkinson's disease. *American Journal of Physical Medicine & Rehabilitation*, *95*(5):348-54.

Bryant M, S., Hou, J. G., Collins, R. L., & Protas, E. J (2015). Gait Variability in Parkinson's Disease: Levadopa and walking direction. *Acta Neurologica Scandinavica,* Jul; 134(1):83-6.

Chen DK, & LaFrance Jr WC.(2016). *Nonepileptic attacks*. In eds. Schomer DL, Lopes da Silva F. Niedermeyer's encephalography, 7th edition, Lippincott Williams and Wilkins; Philadelphia, 2016. *Accepted*

Chen DK, & LaFrance Jr WC. (2016) Neuropsychiatric aspects of epilepsy. In eds. Yudofsky SC, Hales, RE, Arciniegas, DB. *Textbook of Neuropsychiatry and Behavioral Neuroscience*, 6th edition, The American Psychiatric Publishing, 2016. *In press.*

Chen DK,& LaFrance WC Jr.(2016). Nonepileptic seizures: Diagnosis and Treatment. Continuum (Minneap Minn). 2016 Feb; 22(*1 Epilepsy*):116-131.

Chiang S, Haneef Z, Stern JM, & Engel Jerome Jr. (n.d.). Connectomics in Epilepsy. Neurology India, 2016 (submitted)

Chiang S, Cassese A, Guindani M, Vannucci M, Yeh HJ, Haneef Z,& Stern JM. (2016). Time

dependence of graph theory metrics in functional connectivity analysis. *Neuroimage*. PMID 26518632

Chiang S, Stern JM, Engel J Jr, & Haneef Z. (2016). Structural-functional coupling changes in temporal lobe epilepsy. *Brain Res. 2015* PMID: 25960346

Chiang S, Levin HS, Wilde E, & Haneef Z. (2015). White matter structural connectivity changes correlate with epilepsy duration in temporal lobe epilepsy. *Epilepsy Res.* PMID: 26709881

Dubey D, Samudra N, Gupta P, Agostini M, Ding K, Van Ness PC, Vernino S, & Hays R.(Jul., 2015). Retrospective case series of the clinical features, management and outcomes of patients with autoimmune epilepsy. *Seizure*. 29:143-7.

Fountain NB, Van Ness PC, Bennett A, Absher J, Patel AD, Sheth KN, Gloss DS, Morita DA,& Stecker M.(Apr., 2015). Quality improvement in neurology: Epilepsy Update Quality Measurement Set. *Neurology.84* (14):1483-7.

Grabyan JM, Collins R, Alverson WA, & Chen DK. (2016). Errors on the first 10 items of the Test of Memory Malingering predicts failure on later trials of the Test of Memory Malingering. *J Int Neuropsychol Soc.* 2016; 22 (Suppl Si).

Haneef Z & Chen DK. (2016). Neuroimaging. In eds. Haneef Z, Maheshwari A. *A Concise Manual of Epilepsy*. 2nd edition. Neurogroups publishers, Boston, MA, USA. ISBN-10: 149956347

Haneef Z, Rutherford H, Chiang S, & Antony A. (n.d.). Survey of Neurophysiology Fellowships in the US. *Journal of Clinical Neurophysiology*, 2016 (submitted)

Jung E, Chen DK, Bullock K, Ries S, Hamid H,& LaFrance WC Jr. (2016).*Therapists' impression before and after training in treatment of PNES.* In eds. Schachter SC, LaFrance Jr WC. Gates and Rowan's Nonepileptic seizures, 3^{1d} edition, Cambridge University Press; Cambridge, 2016. *In Press*

Maheshwari A, & Haneef Z. (2016). Seizures and epilepsy. In: Kass JS, Mizrahi EM, eds. *Neurology secrets*, 6th ed. Philadelphia: Elsevier, 2016: 301-321.

Martin, R., Cirino, P.T., Hiscock, M., Schultz, R., Collins, R., & Chapieski, M. L. (Accepted). Risks and Benefits of Epilepsy Surgery in a Pediatric Population: Consequences for Memory and Academic Skills. *Epilepsy & Behavior.*

Proto, D., Collins, R., Grabyan, J. (in manuscript). Performance and symptom validity in Veteran's with Epilepsy and Psychogenic Non-epileptic events.

Qaraqe M, Ismail M, Serpedin E, & Haneef Z. (2016). Epileptic Seizure Onset Detection Based on EEG and ECG Data Fusion, *Epilepsy and Behavior*, PMID 27057745

Robinson, J., Collins, R., & Mukhi, S. (2016). Alexia without Agraphia in a Right-handed Individual Following Right Occipital Stroke. *Applied Neuropsychology*, 23 (1), 65-69.

Saipetch C, Sachs E, & Haneef Z. (n.d.). Epilepsy: five new things. *Neurology in Clinical Practice,* 2016 (Accepted)

Stinson, J., Chang, J., Robsinson, J., Collins, R. (In manuscript). Validation and Utilization of the

Patient Competency Rating Scale (PCRS) in an Epileptic and Non-Epileptic Population.

Zulfi Haneef & Atul Maheshwari (eds) (2016): *A Concise Manual of Epilepsy.* 2nd edition. Neurogroups publishers, Boston, MA, USA. ISBN-10: 149956347

Abstracts / Posters / Presentations:

Dave H, Alobaidy A, & Chen OK. (2016). *Provocative induction of psychogenic nonepileptic seizure: effectiveness of placebo vs. non-placebo techniques.* Accepted abstract to be presented at the 2016 Annual American Epilepsy Society Meeting, Houston, TX.

Gulshan Uppal, Niravkumar Barot, & Paul Van Ness [P3.189] (2015). *Speechless" After a Seizure: A Rare Case of Postictal Aphemia* Presented at the 2015 American Academy of Neurology Meeting, Tuesday, April 21, 2015- 2:00 pm in Washington DC. Session Info: P3: Poster Session III: Epilepsy/Clinical Neurophysiology (EEG): Cognition and Behavioral Health (2:00 PM-6:30 PM)

Haneef Z: Time dependence of graph theory metrics in functional connectivity analysis. 68th AAN Annual Meeting, April 15-21 2016, Vancouver, BC, Canada. (Platform presentation, Sharon Chiang)

Haneef Z: Presurgical PET mapping predicts surgical outcome after anterior temporal lobectomy. 68th AAN Annual Meeting, April 15-21 2016, Vancouver, BC, Canada.

Haneef Z: Time-dependence of graph theory metrics in functional connectivity analysis. Annual Meeting of the American Epilepsy Society, December, 2015 in Philadelphia, PA.

Haneef Z: "Review of systems" questionnaire as a predictive tool for psychogenic non-epileptic seizures. American Academy of Neurology 67th Annual Meeting, April 21, 2015, Washington, DC (Platform presentation S14.005).

Hays,Ryan; Dubey, Divyanshu; Samudra,Niyatee; Agostini,Mark; Ding,Kan; Gupta,Puneet; Van Ness, Paul & Vernino, Steven. [P6.285] *Autoimmune Epilepsy: Clinical Features, Management and Outcomes*. Presented at the 2015 American Academy of Neurology Meeting, Date/Time: Thursday, April 23, 2015 - 7:30 am in Washington DC.Session Info: P6: Poster Session VI: Epilepsy/Clinical Neurophysiology (EEG): Surgery/Autoimmune Epilepsy (7:30 AM-12:00 PM)

Lu Lin, Castleman David, Catherine Glover, Jill Vieley, & Paul Van Ness. [P3.203] Use of Best Practice Alerts in Electronic Medical Records to Improve Care for Women of Childbearing Age Taking Anti-seizure medications. Presented at the 2015 American Academy of Neurology Meeting, Tuesday, April 21, 2015 - 2:00 pm in Washington DC. Session Info: P3: Poster Session III: Epilepsy/Clinical Neurophysiology (EEG): Health Services (2:00 PM-6:30 PM)

Niravkumar Barot, Hai Chen, Pradeep Modur, Paul Van Ness, Mark Agostini, Ryan Hays, Christopher Madden, Bruce Mickey, Kan Ding [P6.278] *Seizure Outcome after Epilepsy Surgery in Patients with Intractable Non-lesional Epilepsy*. Presented at the 2015 American Academy of Neurology Meeting, Date/Time: Thursday, April 23, 2015 - 7:30 am in Washington DC. Session Info: P6: Poster Session VI: Epilepsy/Clinical Neurophysiology (EEG): Surgery/Autoimmune Epilepsy (7:30 AM-12:00 PM)

Rossetti, R., Collins, R., & York, M. (2016). Performance Validity in Deep Brain Stimulation Candidates. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, February 3-6. Rutherford H, Ram A, Majmudar S, & Chen OK. (2016). *Pre-diagnosis illness perception influences short-term clinical outcomes following video-EEG confirmation of psychogenic nonepileptic seizures.* Accepted abstract to be presented at the 2016 Annual American Epilepsy Society Meeting, Houston, TX.

Stinson, J., Martin, B., Chang, R., & Collins, R. (2016). Logopenic Progressive Aphasia in Patient with Meningioma: Neuropsychological Evaluations over Time. Abstract presented at the 44th Annual Meeting of the International Neuropsychological Society, Boston, February 3-6.

Van Ness, P.; Mizrahi, E.; King-Stephens, D.; Nair,D.; Bazil,C.; Goodman, R.; Jobst, B., Gross,R., Shields, D.; Barkley,G. L.; Salanova, V.; Bergey,G.; Wharen,R.; Worrell,G.; Marsh, R.; Noe, K.; Murro, A. M.; Cole,A.; Edwards, J. C.; Spencer, D.; Smith,M.; Geller, E.; Gwinn, R.; Skidmore,C.; Berg,M.; Heck, C.; Agostini, M.; Fountain, N.; Rutecki, P.; Herekar, A.; Duckrow, R.; Crowder Skarpaas,T.; Kapur,R. & Morrell, M. (2015).*Long-term Outcome of Adults with Medically Intractable Mesial Temporal Lobe Seizures Treated with Responsive Neurostimulation*. (Abst. 2.172), 2015 American Epilepsy Society Meeting, Philadelphia PA

Van Ness, P.; Arcot Desai, S.; Sun,F.; Kapur,R.; King-Stephens, D.; Bergey,G.; Bazil, C. W.; Herekar, A. & Morrell, M. (2015). *Electrographic seizure detection and effectiveness of responsive neurostimulation in periventricular nodular heterotopias*. (Abst. 1.121), 2015. American Epilepsy Society Meeting, Philadelphia PA

Van Ness, P.; Yetkin, Z.; Agostini, M.; Uppal,G.; Ding, K.; Hays, R.; Mccol, R. & Mendelsohn, D. Utilization of fMRI in patients with epilepsy and right hemispheric dominance. Presented at the International Epilepsy Conference, Istanbul, Turkey, Poster 0398, September 8, 2015. *Epilepsia 56* (Suppl. 1) 3-263 doi: 10.11 11/epi.13241

Van Ness, Paul; Crowder Skarpaas, Tara; & Morrell, Martha (2016). The RNS System Investigators. Long-Term Outcome of Adults with Medically Intractable Mesial Temporal Lobe Seizures Treated with Responsive Neurostimulation. Neurology 2016; 78 (Meeting Abstracts): 18.009. Presented at the 2016 American Academy of Neurology Meeting, Vancouver BC Canada 4-18-2016.

San Antonio

Publications / Manuscripts / Chapters:

Aspinall SL, Zhao X, Semla TP, Cunningham FE, Paquin AM, Pugh MJ, Schmader KE, Stone RA, & Hanlon JT(Jan., 2015). Epidemiology of Drug–Disease Interactions in Older Veteran Nursing Home Residents. Journal of the American Geriatrics Society.63(1):77-84.

Janak JC, Pugh MJ,& Orman JA.(2015). Epidemiology of traumatic brain injury. *Epidemiology*. Nov: 6-35.

Logue, E., Marceaux, J.C., Balldin, V., & Hilsabeck, R. (July 2015). Further validation of the pillbox test in a mixed clinical sample. *American Academy of Clinical Neuropsychology, 29*(5), 611-623. DOI: 10.1080/13854046.2015.1061054

Pugh MJ,& McMillan KK. (May, 2016). Guidelines and Quality Standards for Adults with Epilepsy. *Neurologic clinics.* 34(2):313-25.

Pugh MJ. (Apr., 2016). Clinical decision rules for epilepsy care: The case for thinking big. *Epilepsy & behavior: E&B. 57*(Pt A):220.

Soble, J.R., Marceaux, J.C., Galindo, J., Sordahl, J.A., Highsmith, J.M., O'Rourke, J.J.F., Gonzalez, D.A., Critchfield, E.A., & McCoy K.J.M. (Dec 2015). The effect of perceptual reasoning abilities on confrontation naming performance: An examination of three naming tests. *Journal of Clinical and Experimental Neuropsychology*, DOI:10.1080/13803395.2015.1107030.

Soble, J. R., Sordahl, J. A., Critchfield, E. A., Highsmith, J. M., Gonzalez, D. A., Ashish, D., Marceaux, J. C., O'Rourke, J. J. F. & McCoy, K. J. M. (Sep 2016). Slow and Steady Doesn't Always Win the Race: Investigating the Effect of Processing Speed across Five Naming Tests. *Archives of Clinical Neuropsychology*

Abstracts / Posters / Presentations:

Ashish, D., Soble, J. R., Marceaux, J. C., & McCoy, K. J. M. (February, 2016). Wechsler Adult Intelligence Scale-4th Edition (WAIS-IV) Performance in a Mixed Clinical Sample of Monolingual and Bilingual Veterans. Poster presented at the Annual Meeting of the International Neuropsychological Society, Boston, MA.

Bailey, K. C., Soble, J. R., Marceaux, J. C., & McCoy, K. J. M. (June,2016). *Lack of a "Bilingual Advantage" on Working Memory and Executive Functioning in a Veteran Sample*. Poster presented at the Annual Meeting of the American Academy of Clinical Neuropsychology, Chicago, IL.

Gonzalez, D.A., Soble, J.R., Highsmith, J.M., Marceaux, J.C., & McCoy, K.J.M. (February, 2016). *Auditory and Visual Naming Tests: Psychometric Properties and Performance Patterns among Veterans with and without Cognitive Impairment*. Poster presented at the Annual Meeting of the International Neuropsychological Society, Boston, MA.

Gonzalez, D.A., Marceaux, J.C., McCoy, K.J.M., & Soble, J.R. (November, 2015). Latent structure and collateral report relationships of the Texas Functional Living Scale with geriatric veterans. *Archives of Clinical Neuropsychology*, *30*, 587.

Gowda, S, Salinas. F, & Szabo A.C. (2016). *Effects of ketamine on intracranial EEG in epileptic Baboon*: Accepted abstract to be presented at the 2016 Annual American Epilepsy Society Meeting, Houston, TX

Highsmith, J. M., González, D. A., Soble, J. R., Marceaux, J. C., & McCoy, K. J. M. (February, 2016,). *Cardiovascular Risk Models Predict Processing Speed Performance: Initial Evidence from a Veteran Sample*. Poster presented at the Annual Meeting of the International Neuropsychological Society, Boston, MA.

McMillan, K.K., Gowda, S., Van Cott, A.C., & Pugh, M.J. (2016). *Bone Health Assessment in Veterans—Are we doing enough?* 2016; Accepted abstract to be presented at the 2016 Annual American Epilepsy Society Meeting, Houston, TX.

Sordahl, J., Gonzalez, D., Highsmith, J., McCoy, K., Marceaux, J.,& O'Rourke, J. (2015, February). The Relationship between Body Mass Index and Processing Speed. *Journal of the International Neuropsychological Society*, *21*(s1), 220.

San Francisco

Publications / Manuscripts / Chapters

Hixson JD. (2016). Lost in translation? A physician's perspective on the mobile health opportunity in clinical trials. *Annals of the New York Academy of Sciences*. 2016. In press.

Jin RO, Mason S, Mellon SH, Epel ES, Reus VI, Mahan L, Rosser RL, Hough CM, Burke HM, Mueller SG, & Wolkowitz OM. (Jun, 2016). Cortisol/DHEA ratio and hippocampal volume: A pilot study in major depression and healthy controls. *Psychoneuroendocrinology*. *72*:139-146.

Mueller SG, Ng P, Neylan T, Mackin S, Wolkowitz O, Mellon S, Yan X, Flory J, Yehuda R, Marmar CR, & Weiner MW. (Nov., 2015). Evidence for disrupted gray matter structural connectivity in posttraumatic stress disorder. *Psychiatry Res.* 234(2):194-201.

Munos B, Baker PC, Bot BM, Crouthamel M, de Vries G, Ferguson I, Hixson JD, Malek LA, Mastrototaro JJ, Misra V, Ozcan A, Sacks L, & Wang P. (2016). Mobile health: the power of wearables, sensors, and apps to transform clinical trials. *Ann N Y Acad Sci*. 2016 Jul;1375(1):3-18. *Epub* 2016 Jul 6.

Salinsky M, Parko K, Rutecki P, Boudreau E, & Storzbach D. (Apr, 2016). Attributing seizures to TBI: Validation of a brief patient questionnaire. *Epilepsy Behav.* 57(Pt A):141-4.. *Epub* 2016 Mar 5

Abstracts / Posters / Presentations:

Bertko , K.; Barnes,D.; Parko, K.; Durgin, T. ; Wicks, P & Hixson, JD. (2015). *User Retention and Utilization of an Online Digital Health Platform for Epilepsy.* Poster Presentation, American Academy of Neurology Annual Meeting, Washington DC

Hegde, M.; McKenna, K.; Singh, R.; Boro, A.; Mays, V.; Klein, P.; French, J.; Dlugos, D.; & Gidal, B.; on behalf of HEP Investigators (2015). *The Predictive Value of EEG and MRI In Antiepileptic Drug Response in Newly Treated Focal Epilepsy: Interim Findings from The Human Epilepsy Project.* 69th Annual Meeting of the American Epilepsy Society, Philadelphia PA, 2015.

Hennessy R, French J, Haut S, Hixson J, & Detyneicki K. (2015) *Impact of Seizure Type on Recognition of Epilepsy.* Poster Presentation, American Epilepsy Society Annual Meeting, Philadelphia, PA

Hixson J, Lora M, Sharpton S, & Davoren B. (2016) *Pilot Implementation of Mobile Devices during Medical Resident Rounds*. Health Information and Management System Society International Meeting, Las Vegas, NV

Hixson J. (2016) Use of a Digital Self-Management Platform for Improving Access for Epilepsy Patients. American Academy of Neurology Annual Meeting, Vancouver BC

Hixson J, Lora M, Sharpton S, & Davoren B. (2016) *Pilot Implementation of Mobile Devices During Medical Resident Rounds*. California Regional Conference on Innovations in GME. San Francisco, CA

Hixson J (2016).*New Therapies in Epilepsy*, Epilepsy Foundation Pipeline Research Conference, Community Day. San Francisco, CA, 2016

Hixson J (2016). *New Approaches to Biosensing and Biomarkers for the Management of Neurological Disease*, American Academy of Neurology Annual Meeting. Vancouver BC, 2016

Hixson J (2016). *Use of a Digital Self-Management Platform for Improving Access in Epilepsy Patients,* American Academy of Neurology Annual Meeting, Data Blitz presentation, Vancouver BC, 2016

Hixson J(2016). *Digital Healthcare Revolution: Future of Chronic Illness Management*, Consumer Technology Association, San Diego, CA, 2016

Parko, KL (2015). *Professionals in Epilepsy Care Symposium: Interprofessional Models and Collaborative Care.* American Epilepsy Society Annual Meeting, Philadelphia, PA. Dec 2015

Witek, N.; Cornes, S.; Hegde, & M. (2015). *Staff Response Times in the Epilepsy Monitoring Unit: A Study of Diurnal/Nocturnal Variability.* 69th Annual Meeting of the American Epilepsy Society, Philadelphia PA, 2015.

West LA

Publications / Manuscripts / Chapters:

Baca CB, Pieters H, Iwaki T, Mathern GW, Vickrey BG (2015). A journey around the world: Parent narratives of the journey to pediatric resective epilepsy surgery and beyond. Epilepsia 2015 Jun; 56(6): 822-32. *Epub* 2015 Apr 20. PMID: 25894906 <u>Cover:</u> A figure from this article was featured as the *Epilepsia* cover for June 2015.

Baca CB & Stern JM.(2015). Scalp EEG in the Epilepsy Surgery Evaluation. In: Shorvon, S., Perucca, E., and Engel, J. (Eds.), *The Treatment of Epilepsy.* Oxford: Blackwell Publishing Ltd.

Bakhurin KI, Mac V, Golshani P, & Masmanidis S.(2016). Temporal correlations among functionally specialized striatal neural ensembles in reward conditioned mice. *J Neurophysiology* Published online: Jan 14th, 2016

Berg A, Baca C, Rychlik K, Caplan R, Vickrey B, Testa F, & Levy S.(2016). Determinants of social outcomes in adults with childhood-onset epilepsy. *Pediatrics*. 2016 Mar 16. pii: peds.2015-3944. [Epub ahead of print]

Cai D, Aharoni D, Shuman T^{*}, Shobe J, Biane J, Lou J, Kim I, Cowansage K, Levenstain A, Tuszynski M, Mayford M, Golshani P & Silva AJ (2016). A shared neural ensemble links distinct contextual memories encoded close in time. Co-Corresponding Author. *Nature* Published online: May 23rd, 2016.

Cantero G, Liu XB, Mervis R, Zajd S, Misir A, Patel S, Hernandez J, Pena A, Cederbaum SD, Golshani P, & Lipshutz G (5/11/2016). Rescue of the Functional Alterations of Motor Cortical Circuits in Arginase Deficiency by Neonatal Gene Therapy, Accepted at *Journal of Neuroscience*. Co-last authors.

Chen James WY, Marshall, Henry & Prakash, Neal (in press). Intrinsic Optical Signal Imaging of Seizures and Cortical Spreading Depression Neuroscience and Biobehavioral Psychology (in press)

Fallah A, Weil AG, Wang S, Lewis E, Baca CB, & Mathern GW. (in press.). Cost utility analysis of competing treatment strategies for drug-resistant epilepsy in children with Tuberous Sclerosis Complex. Epilepsy & Behavior *(in press).*

Gdalyahu A, Lazaro M, Penagarikano O, Golshani P, Trachtenberg J, & Geschwind D(2015). The autism related protein Contactin-Associated Protein-Like 2 (CNTNAP2) is required for stabilization of new spines. *PLOS One*, Published on-line May 7th, 2015.

Jara-Prado A, Ochoa A, Alonso ME, Lima Villeda GA, Fernandez-Valverde F, Ruano-Calderon L, Vargas-Canas S, Duron RM, Delgado-Escueta AV, & Martinez-Juarez IE.(2014). Late onset Lafora disease and novel EPM2A mutations: Breaking paradigms, *Epilepsy Research* 108(9): 1501-1510; PMID 25246353.

Jean-Philippe Langevin, James WY Chen, Ralph J. Koek, David L. Sultzer, Mark A. Mandelkern, Holly N. Schwartz & Scott E. Krahl (2016) Deep Brain Stimulation of the Basolateral Amygdala: Targeting Technique and Electrodiagnostic Findings, *Brain Sciences, 6*(3)

Keselman, Inna, Wasterlain, Claude G., Niquet, Jerome & Chen, James W.Y. (2016). Status Epilepticus - Lessons and Challenges from Animal Models, *Seizures in Critical Care* (in press)

Langevin JP, Koek RJ, Schwartz HN, Chen JW, Sultzer DL, Mandelkern MA, Kulick AD, & Krahl SE (2016), Deep Brain Stimulation of the Basolateral Amygdala for Treatment-Refractory Posttraumatic Stress Disorder, *Biol Psychiatry: 79*(10):e82-84 Sep 11

Langevin JP, Koek RJ, Schwartz HN, Chen JW, Sultzer DL, Mandelkern MA, Kulick AD, & Krahl SE (2016) Could deep brain stimulation be an option for treatment-refractory posttraumatic stress disorder? *Federal Practitioner* (accepted)

Lopez-Baquero R, & Baca CB(2016).. Psychosocial Issues in Epilepsy. In Haneef and Maheshwari (Eds). *A concise manual of epilepsy*. 2nd Edition. CreateSpace Independent Publishing Platform

Nguyen Viet-Huong, Baca CB, & Chen JJ.(*In press*). Epilepsy. In Depiro and Wells (Eds.) *Pharmacotherapy: A pathophysiologic approach*. 10th Edition. McGraw-Hill Publishing (*in press*).

Niquet J, Gezalian M, Baldwin R, & Wasterlain CG.(2015). Neuroprotective effects of deep hypothermia in refractory status epilepticus. *Annals of Clinical and Translational Neurology 2*(12): 1105–1115.

Niquet J, Baldwin R, Suchomelova L, Lumley L, Naylor D, Eavey R, & Wasterlain CG.(2016). Benzodiazepine-refractory status epilepticus: pathophysiology and principles of treatment. *Ann N Y Acad Sci.* 2016 Jul 8. doi: 10.1111/nyas.13147. [Epub ahead of print] PMID: 27392038.

Niquet J, Baldwin R, Norman K, Suchomelova L, Lumley L, & Wasterlain CG.(Sept., 2016). Midazolam-ketamine dual therapy stops cholinergic status epilepticus and reduces Morris water maze deficits. *Epilepsia*. *57*(9):1406-15. doi: 10.1111/epi.13480. Epub 2016 Aug 8. PMID: 27500978.

Pieters H, Iwaki T, Vickrey BG, Mathern GW, Baca CB. (2016). It was five years of hell: Parental experiences of navigating and processing the slow and arduous time to pediatric resective epilepsy surgery. *Epilepsy & Behavior 62*: 276-84. *Epub* 2016 Aug 10.

Peñagarikano O Lazaro MT, Lu XH, Gordon A, Dong H, Lam HA, Peles E, Maidment N, Murphy NP, Yang XW, Golshani P, & Geschwind DH.(2015). Exogenous and evoked oxytocin restores social behavior in the *Cntnap2* mouse model of autism. *Science Translational Medicine* 7 (271)

Prevedel R, Verhoef AJ, Pernia-Andrade AJ, Huang B, Nobauer T, Fernandez A, Delcour JE, Golshani P, Baltuska A, & Vaziri A (n.d.) High-speed 3D calcium imaging across a cortical column using sculpted light. In press in *Nature Methods*.

Pugh MJ, Baca CB, Van Cott AC, Rhode N, & Amuan ME.(2015). Anti-epileptic drugs prescribed for Afghanistan/Iraq War Veterans Diagnosed with Epilepsy. *Epilepsy Behav.* 2015 May;46:133-9. *Epub* 2015 Apr 21. PMID: 25911209 [DIV]

Srinivasan R, Huang B, Venugopal S, Johnston AD, Chai H, Zeng H, Golshani P & Khakh BS (2015) Physiological Ca²⁺ signaling in astrocytes from IP3R2^{-/-} mice in brain slices and during startle responses *in vivo*. *Nature Neuroscience*, Published on-line April 20th, 2015.

Suchomelova L, Lopez-Meraz ML, Niquet J, Kubova H, & Wasterlain CG.(2015). Hyperthermia aggravates status epilepticus-induced epileptogenesis and neuronal loss in immature rats. *Neuroscience.* 2015 Oct 1;305:209-24. doi: 10.1016/j.neuroscience.2015.08.006. PMID: 26259902.

Torolira D, Suchomelova L, Wasterlain CG, & Niquet J. (2015). Widespread neuronal injury in a model of cholinergic status epilepticus in postnatal day 7 rat pups. *Epilepsy Res. 120*:47-54. doi: 10.1016/j.eplepsyres.2015.11.005. PMID: 26709882.

Wight JE, Nguyen VH, Medina MT, Patterson C, Duron RM, Molina Y, Lin YC, Martinez-Juarez IE, Ochoa A, Jara-Prado A, Tanaka M, Bai D, Aftab S, Bailey JN, & Delgado-Escueta AV. Chromosome loci vary by JME subsyndromes: Linkage and haplotype analysis applied to epilepsy and EEG 3.5-6 Hz polyspike waves, Molecular Genetics & Genomic Medicine, accepted for publication.

Abstracts / Posters / Presentations:

Dudek,Ed; Herson, Paco; Macklin,Wendy; & Wasterlain, Claude (Jan 25, 2016). Chair, Panel on *Neuronal injury in the immature brain after seizures and hypoxia-ischemia*, WCBR, Breckenridge, CO,

Golshani, P. (Nov 2, 2015). *New tools for recording large-scale cortical activation patterns during decision-making.* Janelia Farms Symposium: Emerging Tools for Acquisition and Interpretation of Whole-Brain Functional Data. Ashburn, Virginia.

Golshani, P.(2015) Brain state and attentional modulation of membrane potential dynamics in visual cortex. University of Pennsylvania, Vision Seminar, Philadelphia, Pennsylvania; December 7th, 2015

Golshani, P. (November, 2015). *Network dynamic signatures of intellectual disability in 2 models of Dup15q Syndrome.* UC Davis MIND Institute, IDDRC Director's Meeting, Sacramento, California;

Golshani, P. (Dec 9, 2015) *Building the next generation of miniaturized microscopes*. NIH BRAIN Initiative Meeting, Bethesda, Maryland.

Golshani, P. (Feb 8, 2016). *Membrane potential dynamics during locomotion and decision making.* Boston University, Dept. of Biology Seminar Series, Boston, MA

Golshani, P. (March 2,2016). *Neural network dynamics in neurodevelopmental disorders*. UCLA BRI/IDDRC Semel Institute Seminar, Los Angeles, CA.

Golshani, P. (June 6, 2016). *Bridging the gap between synaptic connectivity and network dynamics in models of autism*. Hoffman La-Roche Invited Speaker. Basel, Switzerland..

Golshani, P. (June 3, 2016). *Brain-state and attention-dependent network dynamics in visual cortex.* Pecs University Symposium. Pecs, Hungary.

Golshani, P. (June 8, 2016) *Interneuron desynchronization in epilepsy*. University of Bonn Medical Center. Bonn, Germany.

Golshani, P. (July 28-29, 2016). *Cortical network dynamic biomarkers of Dup15q Syndrome.* Angelman and Dup15q conference: Two Sides of a Coin: Deletions and Duplications on Chromosome 15q. Silver Springs, Maryland.

Golshani, P. (2016). *Dentate gyrus interneuron desynchronization in chronic epilepsy.* VA National ECOE invited speaker

Golshani, P. (Aug 21-26, 2016). *Cortical and hippocampal network dynamics in epilepsy*. Gordon Research Conference, Epilepsy and Neuronal Synchronization, Girona, Spain.

Golshani, P. (October 19, 2016). Bridging the gap between network dynamics and network connectivity with new imaging tools. UC Berkeley, Dept. of Bioengineering Seminar, Berkeley, CA,

Golshani, P. (November 12, 2016). *Open-source new generation miniaturized microscopes*. Society for Neuroscience, Meet the Expert Session, Invited Speaker. San Diego, California,

Golshani, P. (December 6, 2016). *Imaging hippocampal network dysfunction in epilepsy.* Merritt-Putnam Symposium, American Epilepsy Society, Multiscale imaging of seizures and epilepsy meeting. Houston, Texas.

Golshani, P. (April 12, 2017). *Bridging synaptic connectivity and network dynamics in models of neurodevelopmental syndromes.* MIT Simons Center for the Social Brain, Cambridge, Massachusetts.

Golshani, P. (May 19, 2017). *Brain-state and attention-dependent network dynamics in visual cortex*. Cajal Institute, Madrid, Spain,

Golshani, P. (May 24-26, 2017). Bridging the gap between network dynamics and network connectivity with new imaging tools. EMBO Brain Imaging Symposium, Warsaw, Poland,

Niquet J., Torolira D.; Suchomelova L., & Wasterlain C. *Cholinergic status epilepticus induces widespread brain damage in postnatal day 7 rat pups* Epilepsia abs 2015 and AES presentation

Wasterlain, Claude G.; Gezalian, J Michael; Baldwin, Roger & Niquet, Jerome (2015). *Deep hypothermia stops refractory status epilepticus and reduces its consequences*, Epilepsia abs 2015 and AES presentation

Wasterlain, C.; Niquet, J., Baldwin, R., Suchomelova, L. & Torolira, D. (March 2016). *Seizure-associated neuronal injury in the immature brain: role of temperature.* European Winter Conference on Brain Research, Villars, Switzerland.

Wasterlain, C. (March 11, 2016). Presentation *Seizure-induced neuronal injury in the very immature brain.* Chair, Symposium on "Epilepsy and Related Morbidities", Villars-sur Ollon, Switzerland.

Wasterlain, C. (2016). Presentation: *Hypothermia for the treatment of refractory status epilepticus.* Abstract in Proc. WCBR 2016.

RESEARCH/GRANTS

Baltimore

Epilepsy Home Automated Telemanagement (EHAT) – Multiple Sclerosis Center of Excellence East-Start date: 05/2013. A. Kabir.

Identifying risk factors for motor vehicle crashes in patients with seizures – Rosen Family Foundation. Start date: 07/2009. Investigators: G. Krauss; Co-Investigators: A. Krumholz & J. Hopp.

Critical Care EEG Monitoring Research Consortium – American Epilepsy Society Infrastructure Award. Start date: 07/2014. Site PI: J. Pritchard.

Study of NMDA receptor mediated feed forward memory – VA BLR&D Merit Review. Start date: 10/2013. Investigator: C. Tang.

Houston

Multisensory Processing of Human Speech Measured with msec and mm Resolution- VA Merit Award. Start date: 10/01/2014. Investigator: D. Yoshor.

Visual Form Perception Produced by Electrically Stimulating Human Visual Cortex's NIH R01EY023336 – National Eye Institute National Institutes of Health – Start date: 09/01/2013. Investigator: D. Yoshor.

Madison

Psychogenic Non-epileptic Siezures in U.S. Veterans – VA CSR&D – Start date: 01/01/2013. Investigator: M. Salinsky; Co-Investigator: P. Rutecki

Mechanisms of 2G Anti-epileptic Effects-VA BLR&D – Start date: 10/01/2014. Investigator: P. Rutecki.

IND-enabling Preclinical Studies of 2DG for Prevention of Post-traumatic Epilepsy in Plasticity Susceptible Rats – CURE – Start date: 09/01/2014. Investigator: T. Sutula; Co-Investigator: P. Rutecki.

RCDA: TBI and posttraumatic epilepsy in plasticity susceptible and resistant rats – VA BLR&D – R. Kotloski.

Portland

Psychogenic Seizures in US Veterans. VA Merit Review. Investigator: M. Salinsky

Richmond

Chronic Effects of Neurotrauma Consortium (CENC) Award. Study 1: Observational study on late neurologic effects of mTBI in OEF-OIF Veterans, DOD. Investigator: A. Towne

The Epidemiology of Epilepsy and Traumatic Brain Injury: Severity and Mechanism, Peer Research Medical Research Program (PRMRP). Investigator: A. Towne

Evaluating Autoimmunity, Inflammation, & Genetic Influences on Epileptogenesis, Epilepsy, & Comorbid Health Burden after TBI. Submitted 8/2016

Focused Biomarker Discovery of Prediction of Post-traumatic Epilepsy in TBI patients: a Prospective Study Using an "Enriched" Patient Population. Submitted 8/2016

A Phase III, Multicenter, Randomized, Double-Blind, Placebo-Controlled Single-Attack Study to Evaluate the Efficacy, Safety and Tolerability of Oral Ubrogepant in the Acute Treatment of Migraine. Submitted 9/2016.

A Phase 2b, Multicenter, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy, Safety, and Tolerability of Multiple Dosing Regimens of Oral MK-8031 in Episodic Migraine Prevention. Submitted 9/2016

Principal Investigator: UCB NO199. A Multicenter, Follow-up Trial to Evaluate the Long-term Safety and Efficacy of Brivaracetam used as Adjunctive Treatment at a Flexible Dose up to a Maximum of 150 mg/day in Subjects Aged 16 years or Older Suffering from Epilepsy. UCB Pharma. Co-Investigator: **E Waterhouse**

San Antonio

The epidemiology of Epilepsy and Traumatic Brain Injury. CDMRP – ERP. Start date:09/2016. Investigator: MJ Pugh.

San Francisco

Center for SUDEP Research: Morphometrics Core. NIH/NINDS. Start date: 09/01/2014. Co-Investigator (site PI): S. Mueller.

Brainstem Atrophy as a Risk Factor for SUDEP. Epilepsy Foundation. Start date: 07/01/2014. Investigator: S. Muller.

Psychogenic Non-epileptic seizures in U.S. Veterans. Merit Review Award: Department of Veterans Affairs. Start date: 08/12/2012. Co-investigator (site PI): K. Parko.

Seattle

Regulation of extrasynaptic GABA_A receptors in health and disease -VA Merit Review-Primary Investigator: C. Ransom.

C. Ransom Obtained IRB approval for a 'Self-management of epilepsy in veterans' program done in collaboration with UW psychologists (Drs. Robert Fraser and Erica Johnson).

Mechanisms of synaptic integration in central neurons - Veterans Administration Merit Review- W.J Spain, PI; 4/01/13 - 3/31/17.

Slowly inactivating K⁺ channels in neocortical pyramidal neurons - NIH R01 NS44163-09.- W.J Spain, PI (overall PI: R.C. Foehiring); 7/01/12 – 6/30/17

West LA

Access to specialty care for Veterans with complex conditions - VAHSR&D1 IO1HX001056 (IIR 12-337-3 VA) - Start date: 4/2015. Investigators: T. Wagner & C. Baca.

Systems level electrophysiology for addiction and reward research - NIMH(RO1DA034178)- Start date: 7/1/2012. Investigators: S. Masmanidis & P Golshani.

Optogenetic treatment of social behavior in autism- NIMH (RO1MH101198-1) – Start date: 8/1/2013. Investigator: P. Golshani,

Linking network dysfunction & abnormal behavior in genetic autism spectrum disorder mouse models-Simons Foundation – Start date: 11/1/2013 Investigators: P. Golshani & C. Portera-Cailliau

Evaluate the efficacy of dual therapy combinations of AEDs in patients with epilepsy. Start date: 2010 S. Dergalust

Analysis of phenytoin protein-binding pharmacokinetics in the Veteran population. Start date: 2012 S. Dergalust

Evaluating the use and efficacy of Anti-Epileptic Drugs in the treatment of status epilepticus in the Veteran population. Start date: 2011. S. Dergalust

Implementation and Evaluation of a Comprehensive Program for management of headache in Veterans with Traumatic Brain Injury. Start Date: 2014. S. Dergalust

Merit Review Treatment of Status Epilepticus: a Translational Proposal -VA Merit review – Start:date: 2013. Primary Investigator: C. Wasterlain.

Rational polytherapy in the treatment of cholinergic seizures - NIH/NINDS – Start date: 2011. Primary Investigator: C. Wasterlain

Studies of the Antiepileptic and Antiepileptogenic Potential of Propylparaben - UC Mexus-Conacyt- Start date: 2014. Primary Investigator: C. Wasterlain

Discovering More Juvenile Myoclonic Epilepsy Genes by a Consortium - NIH/NINDS- Start date: 2010 Investigator: A. Delgado-Escueta

Persisting Myoclonic and Grand mal Seizures in JME including Veterans - VA Merit Review – Start date: 2013. Investigator: A. Delgado-Escueta

Two CIDR Grants (Center for Disease Research) provide genoyping services - NIH federal contracts to Johns Hopkins University- Start date: 2012. Investigator: A. Delgado-Escueta

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.

NATIONAL ADVISORY COMMITTEE MEMBERS

Marc Dichter, MD, PhD, University of Pennsylvania, ECoE Advisory Committee Chair Michael 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 Sandy Finucane, Executive Vice President, Epilepsy Foundation Glenn Graham, MD, VA Deputy Director of Neurology COL Jamie B Grimes, MD, MC, USA, Uniformed Service University, Department of Neurology Chair Donald Higgins, MD, VA National Director of Neurology Patty Horan, Military Officers Association of America David Labiner, MD, University of Arizona, National Association of Epilepsy Centers Richard Mattson, MD, Yale Epilepsy Program Shane McNamee, MD, VA Poly-Trauma Centers Angela Ostrom, Chief Operating Officer & Vice President Public Policy, Epilepsy Foundation Jack Pellock, MD, Virginia Commonwealth University Robert Ruff, MD, VA Director of Neurology - Retired Brien Smith, MD, Spectrum Health Medical Group, Michigan State University William Theodore, MD, Chief of the Clinical Epilepsy Section, NINDS Kathy Tortorice, Clinical Pharmacist, VA Pharmacy Benefits Management Michael Flowers, LTCOL, USMC (Retired) Ann Marie Bezuyen, Director of Special Projects, Anita Kaufmann Foundation Phil Gattone, CEO, Epilepsy Foundation Jan Buelow, VP of Programs & Research, Epilepsy Foundation Princess Katana, Senior Director for Programs, Epilepsy Foundation Rosemarie Kobau, MPH, MAPP, Centers for Disease Control and Prevention, Epilepsy Division Tim Tilt. ECoE Veteran Patient Francis White III, Veteran Patient Ed Perlmutter, Congressman, Representing 7th District of Colorado Karen Parko, MD, Former ECoE National Director Ryan Rieger, MHA, Former ECOE National Administrative Director

Advisory Committee Chair 2015 Letter to SecVA



January 19, 2016

Marc A. Dichter, M.D., Ph.D. Professor of Neurology

The Honorable Robert A. McDonald Secretary of Veterans Affairs Department of Veterans Affairs 810 Vermont Ave., NW, Room 1000 Washington DC 20420

Re: Annual External Evaluation of the VA Epilepsy Centers of Excellence (ECoEs)

ECoE National Advisory Board Meeting Report - Friday, December 4, 2015

Dear Secretary McDonald,

I'm writing this letter to as Chairman of the VA Epilepsy Centers of Excellence National Advisory Board. I know how busy you are but I thought a brief report about what I think is one of the VA's major successes might be something you'd enjoy hearing about once per year. The ECoE is a Veterans's healthcare network composed of 4 multisite regional centers encompassing 16 sites and connecting to all of the VA healthcare sites that provide care to Veterans with epilepsy. The ECoEs are strategically linked to the Polytrauma System of Care. Each year, leaders of the ECoEs meet with an External Advisory Board to review progress and discuss recommendations for the upcoming year. The Board is composed of non-VA personnel – experts in epilepsy and representatives of individuals with epilepsy both in the VA and in civilian life. To summarize our past evaluations and the present one, the Board has been very impressed with the progress made by the ECoEs in their 6 years of existence including the improvements to access to specialized care for Veterans with epilepsy, the clinical and educational programs developed, the connection with mental health programs required by these Veterans, and the likely significant cost savings to the VA by the new centralized facilities.

At this year's annual meeting, discussion highlighted the data linking the relationships between PTSD and epilepsy. It also continued to focus on evaluating cost savings regarding the epilepsy monitoring evaluation. These economic data exist but require man power and expertise to fully evaluate, funds for which are not currently in the budget. The hiring freeze, in place for the ECoE since March of 2014, continues to compromise the program. Specifically, inability to replace administrative support has compromised the ability to mine these data to fully demonstrate the expected health improvements and cost savings. Also, the current structure of the organizational chart for the ECoEs has not created positions to address these questions. It is not clear when the freeze will be lifted and also how the organizational charts may be changed to incorporate new positions to help identify the potential cost savings of health care for Veterans with epilepsy that is a direct result of the ECoE program.

Department of Neurology | HUP, 3400 Spruce Street | Philadelphia, PA 19104-6074 | Tel: 610 659-4852 | dichter@mail.med.upenn.edu Optimizing Epilepsy Monitoring Unit (EMU) services and enhancing interactions with the VA health care network is an ongoing process and will be continued this fiscal year. Issues included the number of beds and staffing for epilepsy monitoring units. None the less, access improvements will be a goal to address in the current fiscal year. Of note, was that nearly 3400 days of video-EEG monitoring was logged for FY15 at ECoE sites. This translates to more than 6 million dollars of potential outsourcing of hospital costs and about 20,000 RVUs within the ECoEs.

Dr. Rutecki, Acting National Director, highlighted the accomplishments of the centers during the past fiscal year. These included Drs. Parko and Ruff being awarded the very distinguished <u>American Epilepsy Society Service Award</u> last December for establishing and developing the foundations of the ECoE. All four regional centers now provide cognitive behavior therapy for psychogenic non-epileptic seizures, an issue that was emphasized during last year's evaluation as a critical addition to the therapeutic armamentarium for Veterans with epilepsy. A white paper that assesses existing mental health epilepsy services and describes existing models of care across ECoE sites was completed. Gaps in care were identified and recommendations for a potential health service intervention were made (Dr. Altalib – West Haven). The nursing group has developed a common consent form for EMU evaluations and has also surveyed EMU sites regarding patient safety issues. In the past year, the Veteran Women with Epilepsy work group has formed and is focusing on using the electronic medical record to alert providers of teratogenic effects of seizure medications.

A discussion of the growth of telemedicine and also store-and-forward EEGs took place. Although these services are beneficial for the patent and reduce travel costs, the administrative costs are greater than person-to-person visits. The store-and-forward EEG services work well when there is adequate technician support at the originating facility. Home telehealth is being piloted at the Durham VA and may be a more efficient way to manage outpatient visits than site to site telehealth. Telephone visits were another efficient way to manage outpatient epilepsy patients. Overall, the VA ECoEs appear to be at the forefront of using telehealth and related technologies for delivering cost efficient and patient satisfying health care to Veterans with epilepsy living significant distances from specialized VA facilities.

Research efforts continue to be strong at the ECoE sites, although not directly funded by the ECoE funds. A prospective study is evaluating characteristics of patients with epilepsy and psychogenic non-epileptic seizures (PNES). This research will help our understanding of the relationship of PTSD with epilepsy and PNES. Many prominent epilepsy specialists feel that some of the intermittent behavioral and cognitive symptoms of PTSD, especially PTSD after TBI, could be due to subtle, non-convulsive seizures. If identified, these seizures could be treated and some of the issues related to PTSD could be resolved. Thus, the relationship between post-TBI PTSD could go in two directions: PTSD patients may have non-epileptic events that are mistakenly diagnosed and unnecessarily treated and other PTSD patients may have subtle events that are, in fact, seizures that are not diagnosed or treated. This research by the ECoEs has the promise of dramatically improving the care of Veterans with PTSD and also has consequences for the civilian population as well. This is one of many examples where the VA can be out front in clinical research that has significant impact both within the Veteran population but also for our country as a whole.

A letter of intent to evaluate cognitive behavior therapy versus conventional care of psychogenic non-epileptic seizures is near submission to the cooperative studies center. The San Francisco VA. ECoE used an online patient community platform directed to Veterans to show that selfmanagement and self-efficacy improved for those that participated (Neurology 2015;85:129–136). The Durham VA used the VHA Support Service Center (VSSC) to assay the number of Veterans with epilepsy and co-morbidities (JRRD 2015 7:751-762) and found comorbid TBI and PTSD were 15.8% and 24.1%, respectively. For OIF/OEF/OND Veterans, these percentages increased to 52.6% and 70.4%, respectively. The higher percentage of TBI and PTSD in Veterans of the most recent conflicts could represent patients with PNES carrying the diagnosis of epilepsy.

Mr. Rieger, National Administrative Officer, reviewed some of the educational programs that were implemented in the past year that included a Self-Management guide developed by the nursing work group. The production of a series of videos for providers is complete and being reviewed by employee educational services. A series of videos of patients explaining their condition is being rolled out and entitled "Epilepsy Basic Training". These presentations are undergoing final review by the public relations office at central office and will be rolled out sequentially in the coming year. The ECoEs continue to be active in training fellows with 16 fellowships filled for FY15. The Advisory Board was very impressed by these efforts.

Goals for the next fiscal year 2016 were briefly reviewed and included development of an EMU safety policy, pursuing data mining for evaluating the economic impact of the ECoEs on VA health care savings, upgrading the newly developed specialized epilepsy clinic note for the electronic medical record (CPRS), continued services for PNES including CBT, and further growing the hub and spoke network for epilepsy care.

A discussion of challenges for the centers ensued. Key concerns were the re-organization of VA Central Office and the current hiring freeze. The need to re-evaluate organizational charts to meet program needs was discussed. There was concern about meeting the budget because of grade and pay increases. It was also brought up that the Government Accountability Office is asking the VA to better define and sanction all the VA centers of excellence. To that end, efforts are planned to codify the ECoE structure and epilepsy monitoring service with attention to guidelines used by the National Association for Epilepsy Centers.

Overall the Advisory Board members who widely represent the neurology and epilepsy professional groups in the United States were impressed by the continuing progress made by the ECoEs with regard to improving the medical care provided to Veterans with epilepsy. Specifically, the Board was enthusiastic about the VA's ability to provide tele-health services, something that is difficult to do in the private sector, in part because of re-imbursement issues. Also the Board commended the ECoEs attention to mental health and treatment for PNES. Finally, the continued efforts to educate Veterans, their families and care providers, and the medical profession were highly praised.

Areas of opportunity for the next year include:

- Growth of the network of consortium sites and an increase in evaluation of Veterans whose seizures are not controlled.
- 2. Increase in collaborative research.
- 3. Demonstration of the cost savings the ECoEs produce.
- 4. Increasing Veteran use of an on-line patient community for self-management.

Overall the ECoEs are meeting the mission of improving the health and well-being of Veteran patients with epilepsy and other seizure disorders. I hope this year's annual review is helpful to you. Please do not hesitate to contact me if you have any questions about this program.

It is a continuing honor for me to have served in this capacity and hopefully, helped improve the medical care for our Veterans with this very difficult neurological illness which is often a direct result of the TBI experienced in combat.

Respectively submitted by:

more a studie

Marc A. Dichter, MD, PhD Chairman, VA Epilepsy Centers of Excellence National Advisory Board Professor of Neurology and Pharmacology Former Director of the Mahoney Institute of Neuroscience Former Director, Penn Epilepsy Center University of Pennsylvania Perelman School of Medicine

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Board Members Present: Marc Dichter MD PhD(Chair), Jack Pellock MD (American Epilepsy Society), David Labiner MD (National Association of Epilepsy Centers), Donald Higgins MD (VA Neurology Director, VA Central Office), Glenn Graham MD (Deputy Director of Neurology, VA Central Office), Mike Amery Esq (American Academy of Neurology), Angela Ostrom (Government Relations, Epilepsy Foundation), Karen Parko MD (Previous ECoE National Director), Rosemarie Kobau, PhD (Director, Epilepsy Program, CDC), Ramon Diaz-Arrastia MD PhD (Center for Neuroscience and Regenerative Medicine Director of Clinical Research, Uniformed Services University of the Health Sciences), Brien Smith MD (EF, former Board Chair), Tim Tilt (Veteran), John Boos MD (Past VA Neurology Director).

VA Staff Present: Paul Rutecki MD (Acting National Director), Ryan Rieger (National Administrative Officer), Ronda Tschumper (NW Administrative Officer), Mary Jo Pugh PhD (Health Services Research and Development researcher San Antonio), Aatif Hussain MD (SE Director), Tung Tran MD (Durham VA), Pamela Kelly PhD. (SE Administrative Officer), James Chen MD (SW director), Allan Krumholz (NE Director), Andrew David (NE Administrative Officer), Alan Towne MD (Richmond VA), Claude Wasterlain MD (West LA VA).

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
СЛ	Clinical Video Telehealth
DOD	Department of Defense
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
HSR&D	Health Services Research and Development
IC	Informatics Council
ICD	International Classification of Diseases
ICU	
IFC	Inter-Facility Consult
IOM	Integrated Operating Model
	Information Resources Management
	Information Technology
	Long Term Monitoring Means Indicator Test
	Multiple Sclerosic Conter of Excellence
NIL	National Institutes of Health
NTRT	New Term Rapid Turnaround
	Office of Academic Affiliation
OFF	Operation Enduring Freedom
OIF	Operation Iradi 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