EPILEPSY
Centers of Excellence • FY13

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.

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

VA Health Care
Defining Excellence in the 21st Century
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MISSION

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

To my colleagues in the VA Epilepsy Centers of Excellence:

This is the fifth anniversary of Congress passing the Public Law that established the ECoEs. Central Office was not sure whether to go along with Congress or to resist. Fortunately, there were strong advocates for the needs of Veterans with epilepsy. Marc Dichter, who was not affiliated with VA, felt that VA was a system where the needs of the patient could be put ahead of profit and other forces. He was a major advocate for establishing an epilepsy network and his connections with epilepsy advocacy groups was invaluable in convincing Congress and VA of the wisdom of forming a system of care for veterans with seizures. VACO also wanted internal numbers to justify spending money on a new initiative. Pat Banks surveyed the resources for epilepsy care within VA and her data was able to convince the Under Secretary for Health that we needed to update our equipment and organize our most valuable resource, the healthcare providers. The tide swept through VACO and the ECoEs were established. Marc and I made a key decision that proved right. We let the ECoE Directors rule themselves. Marc said he was impressed with the selflessness of the Directors and their excellent choice of Dr. Parko as the National Director. Dr. Parko in turn made the astute choice of Ryan Rieger from among several excellent candidates for the position of National Administrative Director. With Dr. Parko at the helm and Ryan as her first officer (#1 in Star Trek speak) the ECoE network took off. There were obstacles that appeared that were deftly negotiated by Captain Parko, Mr. Rieger, the Directors and the whole crew of the Starship ECoE.

The ECoEs have continued to succeed because of the skill and dedication of all of their members. Marc and I take little credit for your success. You changed the pattern of healthcare delivery. Less epilepsy care is being outsourced because of the resources that exist within the ECoE network to provide care within VA. This is the first program that I am aware of in VA that clearly showed that the money saved by reducing outsourcing has exceeded the amount of money spent on maintaining the network. It amazes me how ECoE field has grown so beautifully after planting the seeds and providing a little bit of water. In the message last year I called out the ECoE Directors and Mary Jo Pugh for their excellent clinical and research work. This year I want to tip my hat to the epilepsy nurses, EEG technologists, administrators and others who have worked in such a devoted manner to enable the ECoE network to succeed. I know that without your continued hard work, we would not have accomplished what we have in the past 5 years.

It is with sadness that this will be my last fall message. For health reasons, I will retire in August 2014. However, I also have a sense of satisfaction knowing that you are strong enough to continue, that Marc will remain involved (as will I unofficially), and that, most impressively, you convinced the skeptics in VACO that you could work together to form the best epilepsy care network in the U.S., a great model for the epilepsy care now and in the future.

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

Sincerely,

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

In 2008 under Public Law S. 2162, the Department of Veterans Affairs (VA) set upon its mission to revolutionize services for the Veterans afflicted by epilepsy and other seizure disorders. The VA founded the Epilepsy Centers of Excellence (ECoE), establishing 16 sites that are linked to form 4 regional centers. The ECoE seek to provide the best possible epilepsy care to Veterans throughout the United States with state-of-the-art diagnostic and therapeutic services. Our goal is to deliver the highest quality of ongoing medical care to Veterans suffering from epilepsy. We also seek to promote outreach and educational efforts for both patients and their physicians in order to further the understanding of this chronic condition. The ECoE offers a range of services in both the outpatient and inpatient realms. The ECoE provides outpatient epilepsy clinics with a staff of neurology 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 www.epilepsy.va.gov.

NATIONAL ECoE PROGRAM GOALS

- Establishing a national system of care to all Veterans with Epilepsy, to function as a center of excellence in research, education, and clinical care activities in the diagnosis and treatment of epilepsy.
- Corroborative 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 state-of-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.
FY13 NATIONAL GOALS

1) Complete Administrative Infrastructure
   a. All Regional AO secured
   b. All Site AO identified and participating
   c. Website

2) Show Impact
   a. Cost effectiveness
   b. Patient satisfaction
   c. Evaluate rural outreach

3) Consortium Development
   a. Hub and Spoke defined within each region
   b. Regional referral systems in place
   c. Utilization of Telehealth, eConsult, and SCAN-ECHO
   d. Formalize ECoE caregiver support program

4) Institute of Medicine
   a. Become active partner and participate in implementation
   b. Participate in implementation

FY14 NATIONAL GOALS

1) Outreach (increase Veterans reached)
   a. Patients - Regional Hub and Spoke further developed
   b. Providers - National VA Epilepsy Consortium

2) Database National Clinical implementation

3) Expand Telehealth, all modalities to all sites

4) Increase multidiscipline care and collaboration
   a. Mental Health, Nursing, EEG technologists, caregiver support

5) Administrative foundation building
   a. All sites have active AO involvement with regional lead
   b. By-laws

6) Promote multi site collaborative research projects
NATIONAL ADVISORY COMMITTEE

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

Marc Dichter, MD, PhD, University of Pennsylvania, ECoE Advisory Committee Chair
Mike Amery, Legislative Counsel, American Academy of Neurology
Susan Axelrod, C.U.R.E.
John Booss, MD, American Academy of Neurology
David Cifu, VA Poly-Trauma Centers Director
Tony Coelho, Epilepsy Foundation
Ramon Diaz-Arrastia, MD, Uniformed Service University
Lcdr Mill Etienne, MD, MPH, MC, USN, Walter Reed National Military Medical Center
Sandy Finucane, Executive Vice President, Epilepsy Foundation
Glenn Graham, MD, VA Deputy Director of Neurology
Col Jamie B Grimes, MD, MC, USA, Defense and Veterans Brain Injury Center National Director
Patty Horan, Military Officers Association of America
Michael Doukas, MD, VA Specialty Care Services
David Labiner, MD, University of Arizona, National Association of Epilepsy Centers President
Richard Mattson, MD, Yale Epilepsy Program
Shane McNamee, MD, VA Poly-Trauma Centers
Angela Ostrom, Government Relations, Epilepsy Foundation
Jack Pellock, MD, American Epilepsy Society
Ed Perlmutter, U.S. Representative for Colorado
Robert Ruff, MD, VA Director of Neurology
Rawn Sahai, Air Force Veteran
Brien Smith, Epilepsy Foundation
William Theodore, MD, Chief of the Clinical Epilepsy Section, NINDS
Kathy Tortorice, Clinical Pharmacist, VA Pharmacy Benefits Management
CAPT Will Watson, MD, PhD, MC, USN, Vice Chair of Neurology, Uniformed Services University
Michael Flowers, Lieutenant Colonel, USMCR
Ann Marie Bezuyen, Director of Special Projects, Anita Kaufmann Foundation
Robert J. Gummit, MD, National Association of Epilepsy Centers President
# 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

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

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<tr>
<td>Baltimore</td>
<td>VA Maryland HCS</td>
<td>(410) 605-7414</td>
</tr>
<tr>
<td>Richmond</td>
<td>Hunter Holmes McGuire VAMC</td>
<td>(804) 675-5000 x3748</td>
</tr>
<tr>
<td>West Haven</td>
<td>VA Connecticut HCS</td>
<td>(203) 932-5711 x4724</td>
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## Northwest

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<td>Madison</td>
<td>William S. Middleton Memorial VA</td>
<td>(608) 256-1901 x17728</td>
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<td>Minneapolis</td>
<td>Minneapolis VAMC</td>
<td>(612) 467-4236</td>
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<tr>
<td>Portland</td>
<td>Portland VAMC</td>
<td>(503) 220-8262 x58330</td>
</tr>
<tr>
<td>Seattle</td>
<td>Puget Sound</td>
<td>(206) 277-4292</td>
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## Southeast
States Covered: Florida, Alabama, Georgia, Mississippi, Tennessee, Kentucky, S. Carolina, Puerto Rico, Arkansas, Louisiana, N. Carolina, and Missouri

Linked Polytrauma Site: Tampa

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<td>Durham</td>
<td>Durham VAMC</td>
<td>(919) 416-5982</td>
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<td>Miami</td>
<td>Miami VAHCS</td>
<td>(305) 575-7000 x7008</td>
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<td>Gainesville</td>
<td>Malcom Randall VAMC</td>
<td>(352) 374-6082</td>
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<tr>
<td>Tampa</td>
<td>James A. Haley VAMC</td>
<td>(813) 972-7633</td>
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DEFINITION OF CENTERS

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

Each ECoE - referred to as an ECoE site

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

Each Region - referred to as an ECoE Regional Center

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

Consortium Site

- Applies to the National ECoE for site designation and is recognized locally and nationally as a ECoE consortium site
- Has a provider specifically trained in treating and managing epilepsy
- Is linked to the ECoE network and has established administrative pathway to refer patients to ECoE
- Provides ECoE epilepsy resources to Veterans
- Available to participate in collaborate research projects
- Participates in ECoE educational programs for clinical epilepsy care
- Can participate in national ECoE initiatives and workgroups
The National VA Epilepsy Consortium is a network of VA physicians, nurses, therapists, pharmacists, and other allied healthcare providers with interest and expertise in improving the health and well-being of Veteran patients with epilepsy and related seizure disorders through the integration of clinical care, education, and research across the VA healthcare system. All clinicians who serve Veterans with epilepsy and related seizure disorders (regardless of capacity) are invited and encouraged to register as a National VA Epilepsy Consortium Member. Membership is free and grants access to a variety of epilepsy educational resources and updates from the ECoE.

**FY13 Accomplishments:**
- Extended Telehealth/SCAN-ECHO invitations to all Consortium members.
- Provided Consortium Members with ECoE information packet in the mail and emails regarding ECoE educational offerings.
- Introduced “The Consortium Connection” Newsletter which provides information about ongoing ECoE initiatives.

**Future Initiatives / FY14 Goals:**
- National VA Epilepsy Consortium Receptions to be held in conjunction with AES and AAN.
- Development of CME Symposium.
- Establishment of Mini-Residency Program.
- Creation of Lunch Hour with an Epileptologist.
- Perform a Needs Assessment.
### INVENTORY OF SERVICES

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**Primary ECoE Contact Phone Number**

- **San Francisco, CA**: 415.379.5599
- **West Los Angeles, CA**: 310.268.3595
- **Houston, TX**: 713.794.8835
- **San Antonio, TX**: 210.617.5161
- **Albuquerque, NM**: 505.265.1711 x2752
- **Baltimore, MD**: 410.60.7414
- **Richmond, VA**: 804.675.5000 x3748
- **West Haven, CT**: 203.932.5711 x4724
- **Madison, WI**: 608.256.1901 x17728
- **Minneapolis, MN**: 612.467.4236
- **Portland, OR**: 503.220.8262 x58330
- **Seattle, WA**: 206.277.4292
- **Durham, NC**: 919.416.5982
- **Miami, FL**: 305.575.7000 x77008
- **Gainesville, FL**: 352.374.6092
- **Tampa, FL**: 813.972.7633
# CLINIC WORKLOAD

**Data Source:** VSSC Outpatient & Inpatient Cubes  
Data collected using ECoE stop code 345 (in the primary or credit stop code position)

## Site | Outpatient Clinic | Outpatient EEG | EMU
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<th></th>
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<td>Unique Patients</td>
<td>Unduplicated Encounters</td>
<td>Unique Patients</td>
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<td>(V05) (512) Baltimore HCS, MD</td>
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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.

## Data Source: Self-Report

Data collected locally at each ECoE site

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## TELEHEALTH CLINIC WORKLOAD

**Data Source:** VSSC Outpatient Cube

Data collected using ECoE and/or telehealth stop codes (in the primary or credit stop code position)

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

One of the VA’s Major Initiatives listed in the VA Strategic Plan FY 2011-2015 focuses on transforming health care delivery to Veterans through the use of health informatics. In accordance with this initiative and the VA tradition of innovation and cutting-edge care, the Epilepsy Centers of Excellence have rapidly expanded services beyond the conventional face-to-face office visit. These newer services leverage the use of technology such as video-teleconferencing to reach Veterans and health care providers in areas where epilepsy care is not readily accessible. Priorities of the Epilepsy Centers of Excellence are to 1) develop a spectrum of effective care delivery methods that are convenient for Veterans and their families, 2) implement services that decrease the travel burden on Veterans and are cost-saving for the VA, and 3) improve access to epilepsy specialty care in rural areas.

Telephone Clinics

One of the ECoE’s longstanding services is telephone clinic. During a telephone clinic visit, epilepsy care recommendations are delivered by the Epilepsy team to Veterans via phone. Telephone clinics allow the Epilepsy team to continue care to Veterans who may be hundreds or even thousands miles away.

As of FY13, all sixteen Epilepsy Centers of Excellence offer Telephone Clinic to augment epilepsy care.

In FY13, the ECoEs conducted 1183 unique patient visits by telephone, a 48% increase over FY12.

Video-Telehealth Clinics

Video-teleconferencing technology has made it possible for an Epilepsy specialist to connect with patients at VA community-based outpatient clinics. The benefit of video-teleconferencing when compared to telephone visits is that patients and providers are able to see as well as hear each other. In addition, providers can order / obtain ancillary testing (vitals, laboratory evaluation) at the local site. Similar to Telephone Clinics, Video-telehealth Clinics allow Epilepsy teams to bridge the distance gap between themselves and Veterans.

In FY13, 269 patient visits were conducted over video-teleconferencing, a 49% increase over FY12. Currently, ten Epilepsy Centers of Excellence offer video-teleconferencing services.
An eConsult, or electronic consult, takes place between the Veteran’s primary care provider or general neurologist and our Epilepsy specialist. The referring provider asks a focused question or requests a recommendation through the VA’s computerized health record, CPRS. The Epilepsy specialist then conducts a patient chart review and sends their recommendations back to the referring provider.

In FY12, only two ECoEs offered eConsults. Today, seven ECoEs offer eConsults. There has been a 117% increase in recommendations provided to referring providers through this service.

SCAN-ECHO is a new service introduced by the Epilepsy Centers of Excellence in FY13. SCAN-ECHO stands for Specialty Care Access Network-Extension for Community Healthcare Outcomes. SCAN-ECHO provides consultation and clinical support from Epilepsy specialists to other health care providers through video-teleconferencing. First, a referring primary care provider or neurologist makes a formal consult request through CPRS. During a scheduled SCAN-ECHO session, the referring clinician presents their patient to the Epilepsy SCAN-ECHO team.

A SCAN-ECHO team is multi-disciplinary, made up of epileptologists, mental health providers, clinical pharmacists, and other specialists as needed. The team then delivers a treatment plan and advice to the referring provider on the spot. Other clinicians from other sites are encouraged to listen and learn from the case discussion. In addition to interactive case discussions, our Epilepsy specialists present a 10-minute epilepsy “clinical pearls” didactic that updates participants on current standards of epilepsy care. All Epilepsy SCAN-ECHO didactics are accredited, allowing providers to earn CME/CEU credits. Also, through our cutting-edge video-teleconferencing equipment, the Epilepsy SCAN-ECHO team is able to share patient EEGs, Epilepsy Monitoring Unit videos, and MRI scans with participants.
In its first year of implementation, the San Francisco ECoE SCAN-ECHO team discussed over 20 unique patients via SCAN-ECHO. The program has expanded to include clinicians in over 16 VISNs with as many as 22 clinicians participating in each SCAN-ECHO session. For FY14, the goal is to implement SCAN-ECHO programs in the ECoE Northwest, Northeast, and Southeast Regions.

**Store and Forward EEG**

The Store and Forward program allows EEG data to be collected and stored at one medical center, then forwarded to a specialist at different site. The specialist then reads and interprets the EEG. The EEG report is then sent back to referring site to aid in the diagnosis of epilepsy.

Currently, through the Store and Forward EEG service, Epilepsy specialists from the Portland Epilepsy Center of Excellence help read EEGs from Boise VA Medical Center over 429 miles away. In FY14, the ECoEs will continue to expand the Store and Forward EEG service to surrounding medical centers.

**Home Video-Telehealth Clinics**

Starting in FY14, a number of ECoE sites will be piloting home video-telehealth clinics. The home v-tel clinics allow Epilepsy specialists to directly connect with Veterans in their home through the Veteran’s personal computer. To participate in the program, Veterans need to have their own computer with a webcam and high speed internet connection. The new home video-telehealth service will allow Veterans to be evaluated by their physician in the comfort of their own home and save the VA travel costs.
In an effort to understand the impact on our veteran’s healthcare and resource utilization in the Epilepsy Centers of Excellence (ECoE), diagnosis codes and discharge data were collected for the FY13 Oct 2012- Sep 2013 from 14 ECoE sites. An Access database was developed in order to collect and create uniform reporting of diagnoses across the ECoE national network in the inpatient care of seizure and epilepsy disorders. EMU classification guidelines were developed by the ECoE in 2012 to ensure consistent data collection across EMUs and at ECoEs and to standardize and validate reporting of seizure types. Each site collected information about prolonged video monitoring that included demographic data; age, gender and length of monitoring along with EMU classifications for each visit and cumulative (if appropriate) and primary and secondary diagnosis codes.

The number of seizure/epilepsy patient admissions totaled 692 with 623 of those being unique patient visits.

The average length of stay was 4-5 days with a minimum stay of less than 24 hours and a maximum stay of 15 days.

Over all 14 sites the number of admission days totaled 2880, with a 4-5 day stay being the most utilized.
The age groups served ranged from 20 to 92 years old with the median ages being between 50 and 59 and 82% of known gender patients admitted being male.

Summary EMU classifications highlighted the etiologies most encountered in the EMUs (related to video-EEG characteristics).
VHA SEIZURE, EPILEPSY, OTHER EVENTS ENCOUNTERS

Unique Patients

![Bar Chart: FY 11: 105,092 patients, FY 12: 106,132 patients, FY 13: 107,475 patients]

Age Group Distributions

- **FY 11**: 11.7% age< 45, 41.0% 45≤age<65, 47.3% age≥65
- **FY 12**: 11.9% age< 45, 43.4% 45≤age<65, 44.7% age≥65
- **FY 13**: 12.5% age< 45, 46.1% 45≤age<65, 41.4% age≥65

Gender Distributions

- **FY 11**: 93.5% Female, 6.5% Male
- **FY 12**: 93.2% Female, 6.8% Male
- **FY 13**: 93.0% Female, 7.0% Male

**Algorithm:** Data collected using ICD-09-CM codes: 345.xx Epilepsy, 780.3x Convulsion, 649.4x Epilepsy Complicating Pregnancy, 780.02 Transient Alteration of Awareness, 780.09 Other Alteration of Consciousness

**Data Source:** VSSC Diagnosis Cube, VA inpatients or outpatients. Numbers rounded to the nearest one decimal digit for percentages. Uniques with unknown ages/genders are excluded from the analysis.
### VHA FY12 PATIENT COUNTS

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<thead>
<tr>
<th>Cohort</th>
<th>Epilepsy Patients, %</th>
<th>All VA Patients, %</th>
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<td>Age ≥ 65</td>
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**Epilepsy:** Males 93.0%, Females 6.9%  
**All VA:** Males 90.3%, Females 8.9%

### OEF/OIF/OND Patient Counts

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<td>Age ≥ 65</td>
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</table>

**Males**

| Age <45      | 2,811 | 365,804 |
| 45≤ Age<65   | 542   | 98,406  |
| Age ≥ 65     | 13    | 1,995   |

**Females**

| Age <45      | 371   | 56,128  |
| 45≤ Age<65   | 65    | 12,086  |
| Age ≥ 65     | 0     | 127     |

**Epilepsy:** Males 88.5%, Females 11.5%  
**All VA:** Males 86.0%, Females 12.6%

**Epilepsy Algorithm:** Patients prescribed at least thirty days of anti-epileptic drugs in FY12 cross matched with seizure diagnosis (ICD-09-CM 345.xx, 780.39) during FY10-FY12. Diagnoses data from EEG and LTM clinics were excluded.

**Data Sources:** Corporate Data Warehouse (CDW) and Pharmacy Benefit Management (PBM).  
*Numbers rounded to the nearest one decimal digit for percentages. Unknowns have been excluded from the analysis.*

*FY13 data not available in Corporate Data Warehouse (CDW) and Pharmacy Benefit Management (PBM).*
Epilepsy Algorithm: Patients prescribed at least thirty days of anti-epileptic drugs in FY12 cross matched with seizure diagnosis (ICD-09-CM 345.xx, 780.39) during FY10-FY12. Diagnoses data from EEG and LTM clinics were excluded.

Data Sources: Corporate Data Warehouse (CDW) and Pharmacy Benefit Management (PBM). Numbers rounded to the nearest one decimal digit for percentages. Unknowns have been excluded from the analysis.

*Prevalence estimates based on counts less than 30.

FY13 data not available in Corporate Data Warehouse (CDW) and Pharmacy Benefit Management (PBM).
PATIENT SATISFACTION SURVEY

In December of 2012, ECoE released a nation-wide patient satisfaction survey in an effort to gauge the extent and ways in which our patients are satisfied by the outpatient clinical services provided by Epilepsy Center sites. Veterans were given the opportunity to anonymously complete the survey after clinical visits, in either a hard copy standard mail format or electronic online format.

This survey tested for several critical care components important to veterans: overall satisfaction, provider/patient communication, thorough explanation of condition and treatment, compassionate clinical experience, clinical availability, staff helpfulness, and promptly being seen upon arrival to clinic.

In total, 383 responses were received, with West Haven bringing in nearly a quarter of the survey results, while the Seattle (16%), Houston (11%), and Minneapolis (9%) sites are also significantly represented.

Provider Communication

Over 95% of veteran respondents felt their seizure providers treated them with compassion and understanding.

“The conversations I have with my provider are purposeful and educational.”

87% of respondents felt their epilepsy/seizure healthcare provider gave enough information on their condition and treatment.

Access and Promptness

Utilizing a patient-centered healthcare model, our ECoE sites continue to foster a trusting and collaborative relationship between providers and patients.

“Thanks to all the staff, who provide such care. You all show compassion to those who need you.”
“The doctor and staff are the best of the best!”

86% felt epilepsy center staff were helpful with setting up appointments, medication refills, or questions.

“The helpfulness of the epilepsy staff was very overwhelming. It was a good feeling to have support if needed. Knowing that people really care about what we have gone thru past + present is very comforting. Not being judged or made fun of because we weren’t taken serious. Most people don’t take a person who has these kinds of spells seriously. Thank you very much for your kindness and support.”

Overall Satisfaction

Q2 I am satisfied with the medical care I receive in epilepsy/seizure clinic.

Answered: 381

The most significant finding is the overall rate of patient satisfaction, reporting that nearly 92% of respondents are satisfied with their epilepsy healthcare across the sixteen ECoE sites.

“I am very pleased. I am thankful I was able to receive the fullest care from the epilepsy clinic. Maybe other VA clinics should use this epilepsy clinic as an example of manner and thoughtful care.”

“The Epilepsy Center is held to high standards, my family greatly appreciates that very much. Thank you!”

“My deepest concern was obtaining the sufficient travel to my appointments. Now that tele-service or seeing my doctor at the VA through tele-monitoring I can stay closer to my home and provide my own transportation without having to drive long ways.”
SOUTHWEST REGION

Richard Hrachovy, MD, Southwest ECoE Regional Director
Ellen Matthiesen, Southwest ECoE Regional Administrative Director

FY13 Accomplishments:

- Epilepsy surgeries performed:
  - Temporal Lobectomies
    - Houston - 2
    - San Francisco – 3
    - West LA - 1
  - Vagus Nerve Stimulation (VNS)
    - San Francisco – 1
    - West LA - 1

- EMU Hub and Spoke Activity: (October 2012 through August 2013)
  - Total number of unique patients monitored by San Francisco, Houston and West LA EMUs = 227
  - This includes 114 referrals from 24 VA sites in 12 States.

- Meeting of Southwest Advisory Board held by conference call in December 2012.

- Fellowships (FTEEs split or on rotating basis):
  - Clinical Neurophysiology – Houston 1, San Francisco .5, Albuquerque .5, San Antonio 1, West LA 2
  - Clinical Polytrauma/Epilepsy - San Francisco 1.5, West LA 1
  - Clinical Neuroimaging Fellowship position in San Francisco successfully recruited.

- Infrastructure:
  - Decision made by SW Site Directors to make SW Regional Director a permanent position.
    - Term basis of 3 years. Automatically renewed unless specific objections.
  - San Francisco successfully piloted and implemented EMU iMed Consent process.

Telehealth/Outreach/Education Activity:

- Epilepsy Video Telehealth
  - Albuquerque ECoE – 11 CBOCs in New Mexico, Arizona and Colorado. Has expanded Epilepsy Telehealth into West Texas VA Health Care System.
  - Houston – 4 CBOCs, San Francisco – 5 CBOCs, West LA - 1 CBOC
  - Patient Home Telehealth
    - San Francisco and Houston have initiated process to begin program in FY14

- Continued Outreach to Polytrauma Level I, II, and III Centers:
  - San Antonio: Level I Center – consults, clinic patients, EEG referrals and research. Planning to begin ambulatory studies. Clinical outreach to DoD (San Antonio Military Medical Center).
  - San Francisco: Ongoing collaboration with Palo Alto Level 1 Center and Denver Level II Center. EEG Tech shared between San Francisco and Palo Alto
  - Houston: Level II Center - Referrals to EMU and Epilepsy clinic
  - West LA: Level II Center - Referrals to seizure clinic given priority status

- Consortium Hub and Spoke Activity:
  - San Francisco ECoE established SCAN-ECHO Telehealth Epilepsy Program nationwide, regionally and locally.
    - Integrated multidisciplinary team approach
    - Sessions occur twice a month
All Consortium members and all ECoE sites invited to participate

- Continued educational lecture series for patients, caregivers and providers.
- Continued support groups for epilepsy patients and caregivers.
- Multiple educational venues for residents, fellows and nurses.
- Collaboration with Epilepsy Foundations.

**Future Initiatives / FY14 Goals:**

- Investigate and define criteria for expanding Epilepsy Video Telehealth to other States and VISNs
- Enhance relationships with consortium members
  - Outreach to Regional Epileptologists and Neurologists
- Collaborate in PNES research
- Enhance clinical and research relationships with Polytrauma Centers
  - Consider Quality Assessment of EEG interpretation at all sites
- Establish e-consults including criteria for use at all sites
- Further develop SCAN-ECHO within SW Region
- VA National Telemental Health Center (NTMHC)
  - San Francisco and Houston currently in discussion with Dr. Curt LaFrance to collaborate in program treating PNES patients with Cognitive Behavioral Therapy (CBT) using video tele-conferencing.
FY13 Accomplishments:

- Epilepsy provider to provider referral and education commenced November 2012 under the VA SCAN-ECHO program (Specialty Care Access Network- Extension for Community Healthcare Outcomes). This program utilizes video Telehealth to communicate directly with groups of referring providers about their epilepsy patients. We have an integrated
multidisciplinary team approach including neurology, psychiatry, and clinical pharmacy collaborators. We hold twice monthly sessions, and have connected with providers from over 20 sites across 8 VISNs. Accreditation for continuing education credits is established through EES/TMS. This program has resulted in improved communication with existing referring sites through SCAN ECHO program with better continuity of care for patients post-EMU discharge. We have piloted a regional SCAN ECHO program for expansion to each ECoE region.

- Recruited and hired part-time clinical pharmacist and psychiatrist for SCAN ECHO team
- Lead EEG technologist contributed to development of national “Safety in the Epilepsy Monitoring Unit” video.
- Delivered updated trainings for nurses in the EMU, including competency checklist, training video, and post-test on TMS.
- Designed and produced RN pocket cards with EMU seizure safety protocol
- Piloted and implemented iMedConsent EMU consent process.
- Performed invasive LTM recordings on two patients, 3 temporal lobectomies, and one new VNS implantation.
- Nearly doubled volume of EMU admissions and total days monitored compared to FY12.
- Streamlined process for accurate workload capture.
- Ongoing Video Telehealth Epilepsy Clinic at 4 sites: Eureka, Ukiah, Clearlake, and Fresno. Expanded to include Downtown SF clinic to target underserved at-risk population of homeless veterans.
- Established scheduled and unscheduled telephone clinics for enhanced access to follow-up care and better workload capture of clinical work.
- Epilepsy counseling services continued, including screening for depression at clinic visits, case management, one-on-one counseling, and a monthly support group.
- Established a bimonthly caregiver support group (in person and by teleconference), first session was in May 2013.
- Recruitment and enrollment for two large research studies (POEM and COVE) began in FY13 under the direction of Drs. Parko and Hixson.
- Developed and published, “Non-Epileptic Seizures: Informational Guide for Patients and Families”) in collaboration with UCSF.
- Designed and produced staff promotional brochure
- Established remote EEG reading access for physicians
- Acquired additional 12-terabyte network storage station for archiving EMU data.

**Telehealth / Outreach / Education Activity:**

- Continued local educational lecture series for patients and caregivers: every other month, including video and slide archive on www.epilepsy.va.gov. Lectures are evaluated and continuing education credits are available.
- Veterans Living with Epilepsy monthly support group.
- Outreached to caregivers by creating a standing bimonthly caregiver support group, and inviting them to be honored on caregiver appreciation day.
- Improved resources for caregivers during EMU admissions with updated nursing policies allowing caregivers to stay in hospital lounge overnight.
- Expanded Video Telehealth epilepsy clinic to downtown SF CBOC.
- Established SCAN ECHO Telehealth epilepsy program nationwide, regionally, and locally
- Established video-to-home Telehealth clinic, piloted on 2 patients in FY13.
- Initiated process to begin Video Telehealth clinic to deliver cognitive-behavioral therapy to patients with psychogenic non-epileptic seizures (collaboration with National Tele Mental Health Center).
- Successfully recruited first fellow for Neuroimaging in Epilepsy special fellowship, beginning Oct 2013. Continued support for epilepsy research and clinical fellows in joint UCSF/SFVA programs.
- Ongoing neurology resident and medical student education through clinical rotations and didactic series.

**Challenges / Barriers:**

- Lack of private rooms in the epilepsy monitoring unit limits privacy for discussions and evaluation of mental health and psychogenic non-epileptic seizures.
• Patients reluctant to travel to SF due to high cost of lodging for caregivers, and hospital policy does not guarantee them to room share with patients due to non-private rooms.
• Ensuring adequate mental health and primary care follow-up for patients from other VA sites.
• Difficulty for veterans with epilepsy to access care and resources with limited transportation options, particularly for patients who are prohibited from driving and travel ineligible.
• Increasing clinical workload without increased funding for clinicians limiting ability to handle increased capacity.
• Management of inter-facility and inter-VISN patients seen in inpatient and outpatient settings, and collaboration with their local providers. Although we have made great strides here, there remain barriers with rapid communication with providers and coordination of some diagnostic and follow-up care locally.

**Future Initiatives / FY14 Goals:**
• Expand SCAN ECHO video Telehealth program to involve more general neurologists in the hub-and-spoke network, and develop sessions with primary providers
• Continue outreach to regional sites not yet involved in consortium.
• Increase pre-surgical evaluations and surgical volume.
• Expand patient video Telehealth to additional sites (Reno, Sacramento)
• Expand video to home Telehealth clinic to more patients, including inter-facility patients
• Collaborate with National Tele Mental Health Center (NTMHC) to establish Telehealth clinic for cognitive behavioral therapy (CBT) in patients with psychogenic non-epileptic seizures (PNES). Services to be provided by Dr. LaFrance in Providence VA directly to patients at SFVAMC.
• Establish e-consults including criteria for use.
• Investigate HL-7 technology for uploading EEG screen captures into VistalImaging
• Expand epilepsy clinical pharmacist services to all inpatient and outpatient services (telephone clinic, telehealth clinics, e-consults, etc).
• Create education clinics and develop targeted patient education materials
FY13 Accomplishments:

- The WLAVA ECoE has operated the Epilepsy Monitoring Unit (EMU) with the state-of-the-art HD video EEG monitoring equipment for two monitoring inpatient beds with remote viewing capability. The EMU continues to admit weekly patients.

- We have regular referral channels between the following VAs and West LA for epilepsy monitoring: Loma Linda VA, Las Vegas VA, Long Beach VA and San Diego VA.

- We have dedicated weekly seizure clinics at West LA, Sepulveda ACC and Los Angeles ACC with a team approach philosophy. The patients are evaluated by a team of epilepsy fellows, an attending Epileptologist, neuropharmacist, psychiatrist, psychologist and an EMU nursing coordinator in one visit. EEG study, if indicated, is completed in the same visit.

- We have a new neurosurgeon, Jean-Philippe Langevin, MD. He is VA based and is offering us the ability to have his full participation on a regular basis. Dr. Langevin has performed surgery for VNS implantation, grids/strips implantation, and a left frontal resection for epilepsy.

- Our regular “Epilepsy Surgical Conference” at WLAVA makes a group decision on epilepsy related surgical procedures. This conference takes place twice a month and with patient and patient family participants. The ECOE team includes Epileptologists, Neurophysiology/Epilepsy Fellows, Neurosurgeon, Psychologist, Neurology Residents, Nurse Coordinator, Pharmacists and EEG Technician. The patient and the family are invited to join the conference to meet the ECOE team, and have a two-way Q&A session to address all concerns related to the epilepsy cares. This conference usually lasts for about 2 hours for each case, and the patient and the family participate for about 30 minutes during the Q&A session.

- 3 Tesla brain MRI is routinely available for all patients with seizure workup. PET scan, PET/MRI fusion, WADA and fMRI are routinely available for cases under surgical evaluation.

- We have two CPRS template based notes to convene all relevant information for seizure clinic and for EMU admission (Epilepsy Center Physician Monitoring Note).

- The neuropharmacist continues to be an integral part of the seizure clinic and EMU admissions. The neuropharmacist provides a detailed drug history including duration and adequacy of exposure to AEDs for each patient. Participate daily in EMU rounds.

- Weekly Telemed appointments with Loma Linda Neurology seizure patients. Dr. Christine Baca spearheaded this program and has been meeting with Epilepsy patients via video conferencing. It has proven to be a valuable and successful program for the patients. It allows for evaluations for seizure patients by an Epileptologist.
- Initiated and implemented e-consults for the Epilepsy Monitoring Unit patients (both WLAVA and IFC), as well as for the Seizure Disorder Clinic patients – in order to provide efficacious and continuous care to patients who have been discharged from the Epilepsy Monitoring Units and Seizure Disorder Clinics respectively.
- Created and implemented three telephone clinics for the Epilepsy Center of Excellence – for physician, pharmacist, and nurse utilization.

**Telehealth / Outreach / Education Activity:**
- The education program is led by Dr. James Chen. He is the director of the WLAVA/UCLA ACGME accredited Clinical Neurophysiology Program with two PGY-5 trainees. He is also the mentor of a non-ACGME VA Advanced Fellow in Epilepsy Research. All three fellows continued academic activities after the end of their fellowships.
- The fellowship training program and the ECoE operation are fully integrated. The ECOE provides the infrastructure for the fellows’ clinical training and the fellows have added service and emergency coverage improvements to the ECoE.

**Challenges / Barriers:**
- We have not been able to extend our Telehealth service to other VA’s except for Loma Linda. This is due to the difficulty of finding a corresponding neurologist/epileptologist at the remote site to co-manage the case during the session and for follow-ups.

**Future Initiatives / FY14 Goals:**
- Move the WLA Epilepsy monitoring units to a newly remodeled ward that will open in FY14. New video EEG equipment have been ordered and delivered. We are in the process of equipment installation. This major upgrade is important for the WLA ECOE to continue to provide the state-of-the-art video EEG monitoring for the years to come. The new system, with more channels per unit, is better equipped to manage cases with implanted intracranial electrodes. We expect to continue our current capability to have 24/7 remote access of the video EEG data in real time for all ECOE physicians to provide cares in the EMU. The remote access includes reading video EEG on mobile devices such as iPAD through a secure VA Citrix server.
- Set up a support group for Veterans with Epilepsy in collaboration with the Southern California Epilepsy Foundation with regular meetings.
- Set up a regular conference with a psychiatrist and psychologist to discuss on how to manage patients with psychogenic non-epileptic seizures.
- Telemedicine: Continue to expand Telehealth service, specialty-subspecialty epilepsy care: between WLAVA and other VA sites in VISN 22. We also plan to explore the home telehealth mode of service when the infrastructure to provide such services becomes available at WLAVA in the coming years.
FY13 Accomplishments:
- Expanded teleneurology epilepsy care to West Texas, Big Springs VAMC system
- Epilepsy patients seen by teleneurology continue to be highly satisfied with their care
- Established ability to perform 6 hours of continuous Video EEGs
- Established a mechanism to send complex epilepsy Veterans to San Francisco ECoE for evaluation (3 to date with more pending)
- Established collaboration with West LA ECoE to read our 6 hour EEGs and see our potential epilepsy surgery patients

Telehealth / Outreach / Education Activity:
- Continue to be a leader in VA tele-epilepsy/teleneurology care
- Established teleneurology epilepsy education program whereby we send the patients educational material about their seizure disorder. Well received by the patients

Challenges / Barriers:
- Currently hiring a part time epileptologist - Ellen Marder, MD, who also works at the Dallas VAMC, but having HR difficulties
- Need tele-presenters at the CBOCs so we can improve quality management of our epilepsy patients

Future Initiatives / FY14 Goals:
- Improve quality of care by developing new programs for rural Veterans with epilepsy to help them manage/cope with their illness
- We are in the process of applying for a VA Office of Rural Health (ORH) telemedicine grant

Other Information:
- Julia Coleman, our epilepsy nurse practitioner is retiring in August. We are currently working to get permission to replace her position. This person will work under the supervision of Dr. Ellen Marder, our epilepsy expert.

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<tr>
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<td>Davis, Larry</td>
<td>Director</td>
<td><a href="mailto:Larry.Davis@va.gov">Larry.Davis@va.gov</a></td>
<td>505.256.2752</td>
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<tr>
<td>Coleman, Julia</td>
<td>Nurse Practitioner</td>
<td><a href="mailto:Julia.Coleman@va.gov">Julia.Coleman@va.gov</a></td>
<td>505.265.1711 x6128</td>
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<tr>
<td>Vigil, Anna</td>
<td>Neurologist (reads EEGs)</td>
<td><a href="mailto:Anna.Vigil@va.gov">Anna.Vigil@va.gov</a></td>
<td>50. 265.1711 x3888</td>
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<td>Harnar, JoAnn</td>
<td>Neurology Nurse</td>
<td><a href="mailto:Joann.Harnar@va.gov">Joann.Harnar@va.gov</a></td>
<td>505.265.5701</td>
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FY13 Accomplishments:

- Houston ECoE Abstract chosen for Platform Presentation at The American Academy of Neurology Annual Meeting in San Diego, March 2013. The presentation was also reviewed in Neurology Today, April 8, 2013 issue. “Therapeutic Utility of Long-Term Monitoring Diagnosis in Psychogenic Nonepileptic Events (PNEE) on Patient Illness Perception and Hospital Resource Utilization”. Nunez-Wallace, K., Murphy, D., Chen, DK.
- Continued the hub and spokes care model in Epilepsy Monitoring Unit (EMU) - referrals accepted from Arizona, Texas, Oklahoma, Kansas, Arkansas, Louisiana, Mississippi, Alabama, and Florida
- Performed 2 epilepsy surgeries.
- Continued monthly non-epileptic stress attack self-help support group meetings to promote mutual support, sharing of coping strategies and internalizing locus of control.
Submitted 3 Research Grant proposals.

**Telehealth/Outreach/Education Activity:**
- Conducting telehealth epilepsy clinics with 4 CBOCs in Texas – Richmond, Conroe, Lufkin, and Beaumont.
- Baylor College of Medicine Epilepsy/Neurophysiology Lecture Series – presented to Neurology residents, and Clinical Neurophysiology fellows.
- Presentations on epilepsy topics at Baylor College of Medicine Neurology Grand Rounds.
- Weekly VA epilepsy teaching conferences with Neurology residents, and Clinical Neurophysiology fellows.
- Provide training experience for Neuropsychology fellows – administration of EMU Neuropsychological instruments.
- Neuropsychology fellows case conference – Presentation of epilepsy and pseudoseizure topics.
- Full-time Neurophysiology/Epilepsy fellow who participates in epilepsy care, interpretation of EEG and EMU studies and education activities.
- Presentations of VA surgical candidates at the biweekly Baylor College of Medicine Epilepsy Surgery Conference.
- Participation in Baylor College of Medicine bimonthly Epilepsy Journal Club.
- Monthly non-epileptic stress attack education class for patients and caregivers.
- Monthly non-epileptic stress attack support group for patients and caregivers.
- Alvin Community College Electroneurodiagnostic Technology Program—Students rotate at the Michael E. DeBakey VAMC for EEG and EMU training.
- Participating in SW Region SCAN-ECHO Sessions.

**Challenges / Barriers:**
- EEG Technologist staffing - difficulty filling vacant positions due to local FTE restrictions.
- Succession Planning - Two experienced EEG Technologists leaving within next 2 years.
- V-Tel – CBOCs have limited scheduling time due to space and equipment issues.
- Local ECoE Budgetary issues –personnel, equipment, supplies.
- Patient travel compensation is slow to reach patients. This affects support group attendance.
- Reimbursement for professional travel.

**Future Initiatives / FY14 Goals:**
- Expand tele-epilepsy to more CBOCs and across state and VISN lines, especially Louisiana.
- Enhance relationships with Consortium sites.
- Recruit for EEG Technologist positions.
  - Cross train techs (ECoG)
- Start a support group for patients with true epileptic seizures.
- Explore the possibility of conducting support groups by V-TEL at CBOCs.
- Establish e-Consults (seizure specific).
- Implement local SCAN ECHO program.
- Implement new CPRS Seizure Template (initial and follow up) to populate database.
- Implement new IMED consent form for EMU patients.
FY13 Accomplishments:
- We were able to hire another epileptologist, Lei Wang, MD PhD. She is 5/8th epilepsy and rest in Sleep.
- Co-Investigator on STRONG STAR-CAP (Epidemiology Co-Director).

Telehealth / Outreach / Education Activity:
- Cyberseminar: Quality Indicators for Epilepsy (QUIET VA).

Challenges / Barriers:
- Lack of funding makes it difficult to provide support to ECOE (full time soft money position).

Future Initiatives / FY14 Goals:
- Engage ECOE faculty in developing manuscripts using data from RECORD Quality (IIR 11-067).
- Mentor for Dr. Hamid from West Haven for CDA/ developing PNES project.

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<td>Cavazos, Jose</td>
<td>Director</td>
<td><a href="mailto:Jose.Cavazos@va.gov">Jose.Cavazos@va.gov</a></td>
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NORTHEAST REGION

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

FY13 Accomplishments:
- Hosted annual regional advisory meeting in Baltimore.
- Northeast Consortium now includes representation from every state.
- Increased number of referring sites within Northeast region.
- Began regional SCAN-ECHO sessions.
- Recruited epilepsy fellows at Richmond and Baltimore.
- Richmond center expanded in conjunction with new polytrauma center.

Telehealth / Outreach / Education Activity:
- All ECoE sites in Northeast now involved in telehealth.
- Tele – Cognitive Behavioral Therapy (CBT) training begun out of Providence.
- All ECoE sites hosted accredited educational events in FY13.
- Richmond developed educational activities with polytrauma and TBI patients.
- Epilepsy Home Automated Telemanagement (E-HAT) Phase A testing begun in Baltimore.
- Outpatient education packets developed and distributed at West Haven.
- Richmond and Baltimore have been involved in Office of Specialty Care Transformation’s Integrated Neurology Project.

Future Initiatives / FY14 Goals:
- Restructure regional advisory board to biannual meetings using non face-to-face modalities.
- Expand SCAN-ECHO within Northeast.
- Increase number of VA Medical Centers connected to ECoE via telehealth.
- Establish effective communication and patient recruitment with Medical Centers in Northeast.
- Identify advocates and champions in Northeast sites to help coordinate care between ECoEs and referring sites.
- Monitor patient satisfaction within Northeast using the nationally developed patient satisfaction survey.
- Richmond and Baltimore will begin the live phase of Integrated Neurology Project patient referrals.
- Continue integration with polytrauma under the guidance of Richmond.
FY13 Accomplishments:

- Referral network has expanded to include 4 new medical centers in NE region, and new telehealth clinics have been established outside of VAMHCS.
- Epilepsy Home Automated Telemanagement (E-HAT) protocol has been approved by IRB and Phase A has begun.
- Co-sponsored education symposium with Epilepsy Foundation and held Northeast advisory board in conjunction with symposium.
- Epilepsy surgery program implanted second VNS and performed second temporal lobectomy.
- Acquired two ambulatory EEG machines and are moving away from providing this service through contracts.
- Expanded seizure clinic from two times a month to four times a month.
- Recruited new VA epilepsy fellow, making this the third consecutive year with a VA fellow.

Telehealth / Outreach / Education Activity:

- Baltimore has expanded telehealth to Martinsburg VAMC, Cumberland CBOC.
- Referral network has been expanded to include Wilmington, DE; Lebanon, PA; Washington, DC; Philadelphia, PA; Cleveland, OH; Kansas City, KS.
- Held first patient education seminar in September.
- Baltimore has participated in a Northeast regional SCAN-ECHO program, including a presentation from Dr. Allan Krumholz on Focal Motor Status Epilepticus.
• Epilepsy Home Automated Telemanagement (E-HAT) received Institutional Review Board approval and Phase A recruitment began in August with Phase A focus groups held in September.
• Participated in ECoE SCAN-ECHO based out of San Francisco national coordinating office.

Challenges / Barriers:
• Limited clinic space area and time availability.
• Staff training complications for second EMU bed has led to long delays in opening our second bed.
• Implementation issues and delays with remote access for video EEG remote monitoring program.
• Limited office space for support staff.
• Time coordination for regional SCAN-ECHO meetings.
• Lack of a designated epilepsy/neurology social worker.
• Difficulty coordinating referral transportation and follow-up with consortium sites.

Future Initiatives / FY14 Goals:
• Establish effective communication and patient recruitment with sites in Northeast region.
• Identify advocates and champions in Northeast sites to help coordinate care between ECoEs and referring site.
• Establish mental health PhD fellowship, focusing on Epilepsy and Multiple Sclerosis CoEs.
• Continue E-HAT through Phase A close out and begin Phase B trial and implementation.
• Recruit social worker to help with referral coordination.
• Improve availability of clinic appointments and monitor patient satisfaction through survey.

Other Information:
• Allan Krumholz: Member of the Professional Advisory Board of the Epilepsy Foundation of the Chesapeake Region and the Abilities Foundation
• Allan Krumholz: Member of the Steering Committee for the 50th Anniversary of the Epilepsy Foundation of, Baltimore, Maryland, and the Chesapeake Region and the Abilities Foundation
• Allan Krumholz: Scientific Grant Review Panel for CURE (Citizens United for Research in Epilepsy)
• Allan Krumholz: Grant Reviewer for the National Epilepsy Foundation Connect 2Care Review Panel
• Allan Krumholz: Participant VHA Neurosurgery/Neurology Collaborative Conference, Washington DC, 201
• Allan Krumholz: Member of the Editorial Board. Clinical EEG and Neuroscience
• Allan Krumholz: Chair, Practice Guidelines Subcommittee on Epilepsy, Panel on Treatment for Newly Diagnosed Seizure. Quality Standards Subcommittee American Academy of Neurology
• Arif Kabir: Member, Practice Guidelines Subcommittee on Epilepsy, Panel on Treatment for Newly Diagnosed Seizure. Quality Standards Subcommittee American Academy of Neurology
• Ana Sanchez: Member, Practice Guidelines Subcommittee on Epilepsy, Panel on Treatment for Newly Diagnosed Seizure. Quality Standards Subcommittee American Academy of Neurology
• Allan Krumholz: Member of the Editorial Board. The Neurologist
• Allan Krumholz: 2013 Best Doctors in America, published by Woodward/White, Inc
• Allan Krumholz: 2013 America’s Top Doctors, published by Castle Connolly Medical Ltd.
• Allan Krumholz: 2013 Super Doctors in the Washington-Baltimore metropolitan region in the Washington Post Magazine
• Allan Krumholz, Elizabeth Barry, Ana Sanchez, Jennifer Hopp: 2012 – Top Doctors in Baltimore magazine
• Allan Krumholz: Elected as a Fellow of the American Neurological Association – 2013
• Ana Sanchez: Member of the Medical Advisory Board for Maryland Motor Vehicle Administration
**FY13 Accomplishments:**
- Two additional EMU beds have been added in the expanded polytrauma unit with an Aug 22 opening.
- Piloted SCAN- ECHO program.
- Dense array EEG purchased.
- Outpatient satisfaction survey being distributed.
- Our new epileptologist, Dr. Laccheo will be onboard in September.
- Our new Program Specialist, Linda Benson is onboard to assist in creating/initiating new projects for National ECoE Research Program.
- The first Epilepsy/Polytrauma Fellowship has been established.
- In process of hiring an additional EEG technologist for OR monitoring and seizure surgery.
- In process of hiring telehealth staff.

**Telehealth / Outreach / Education Activity:**
- Richmond ECOE in conjunction with Virginia Commonwealth University hosted the 29th Annual Hans Burger Day Symposium on May 20-21, 2013.
- Hosted the Northeast ECoE regional meeting.
- Telehealth epilepsy program instituted.
- Rural health linked to specialty neuro providers.
- Developed educational activities with polytrauma and TBI patients.
- Development of new clinics with CBOCs.

**Challenges / Barriers:**
- Hiring delay of intra-operative EEG technologist and staff for telehealth program.
- Limited clinical space.

**Future Initiatives / FY14 Goals:**
- To expand telehealth epilepsy program to rural health providers.
- To increase referrals from CBOCs.
- Development of new outreach clinics.
- In-house education for EMU techs and residents.
- Utilize dense array to detect possible seizure foci in TBI patients.
- Volumetric analysis of epilepsy patients using NeuroQuant.

**Other Information:**
- Develop local patient survey & educational tools and respond to feedback.
- Develop an epilepsy support program or network.
FY13 Accomplishments:
- Hired EEG Technologist & APRN.
- Established Tele-Psychogenic Nonepileptic Seizure (PNES) Clinic for Northeast region.
- Increased number of outpatient visits.
- Two new Video EEG acquisition and review stations purchased received.

Telehealth / Outreach / Education Activity:
- Started Seizure Clinical Video Telehealth (CVT) Service.
- Coordinated SCAN-ECHO service with Northeast region.
- Outpatient education packets developed and distributed in clinic.
- Coordinated central location for ECoE Educational Audio Conferences in Neurology for patient education and dialog.

Challenges / Barriers:
- During FY12, had four month period without an EEG technologist.
- Now, with single EEG Tech and single epileptologist there is no coverage during authorized leave and authorized absences. Also, limited ability to expand seizure clinic.
- Space remains an issue.

Future Initiatives / FY14 Goals:
- Staffing: Hire second EEG Tech and second Epileptologist.
- Establish two EMU beds.
- Expand SCAN-ECHO educational conference.

Other Information:
- Presented at the American Epilepsy Society Annual Meeting: Military Epileptologists Special Interest Group: Psychogenic Non-Epileptic Seizures in Veterans.
NORTHWEST REGION

Paul Rutecki, MD, Northwest ECoE Regional Director
Amy Childers, Northwest ECoE Regional Administrative Officer

FY13 Accomplishments:

- Portland established working partnership with PVAMC Public Affairs to use various social media outlets (Facebook, Twitter and soon Flickr) to promote national and local ECoE Education programs.
- Portland initiated the startup of multicenter collaborative ECoE research project ‘Psychogenic Seizures in US Veterans’.
- Portland initiated training of NPs for other VAMCs participating in VISN 20 telemedicine pilot project (Office of Specialty Care Transformation; with MSCoE and PADRECC).
- Competency checklists for nurses, licensed practical nurses and nurses aids (developed by the Nursing workgroup) have been implemented on the Seattle EMU.
- All hub sites now provide Telehealth and e-consults for epilepsy care.
- Implementation of monitoring safety guidelines for the EMU with innovative ways to maximize safety including partnering with CCU telemetry.
- Madison Outpatient EEG laboratory received ABRET lab accreditation for 5 years.
- Increased ECoE staff with 2/8th Neurologist and 1.0 FTE NW Regional Administrative Officer bringing the Madison ECoE to full staff.
- Minneapolis hired qualified EEG technologist at GS9.
- EMU equipment upgrade to include seizure detection software & HD cameras at the Minneapolis ECoE.
- Minneapolis Chief of Staff approval to hire Epileptologist and NP.

Telehealth / Outreach / Education Activity:

- Portland established networking relationship with Epilepsy Foundation NW to promote local ECoE services and education programs.
- All ECoE centers provide training of undergraduate and graduate students, nurses, medical students, resident physicians, clinical neurophysiology fellows and other providers in epilepsy.
- ECoE staff finalized and implemented the national training video for VA nurses on EMU safety (Ransom/Ozuna/Perkins) and TMS training.
- Multiple presentations and talks at local and national levels through the Epilepsy Foundation and VA Employee Education Services.
- Madison ECoE employed a summer intern to develop patient outreach and curriculum needs
  - Surveyed patients on epilepsy and seizure needs
  - Patient brochures
  - Trifold for outreach events / Attended outreach events
  - Organized Epilepsy workshop for patients and caregivers
  - Collaborating on 2nd quick series booklet
- Madison ECoE EEG Technologists provide outreach and education support to Iron Mountain EEG Technologist. The Technologist spent one week at the Madison facility and received one on one intensive training.

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Future Initiatives / FY14 Goals:

- Expansion of tele-EEG (remote EEG acquisition) with several additional VAMCs (Spokane, Walla Walla, Anchorage) as part of VISN 20 pilot project. Scheduled for Q1-2 2014.
- Expansion of Telehealth and e-consult services at all sites.
- Submission of VA ECoE multicenter grant ‘TBI and Psychogenic Seizures’ (Salinsky).
- Development of Neuropsychology partnership at the VA Puget Sound to establish treatment for patients with psychogenic nonepileptic seizures.
- Implementation of the CITRIX server for the Madison ECoE will continue to be a goal for the following fiscal year.
- Organization of a regular SCAN-ECHO program throughout the Northwest region.
- Minneapolis will focus on hiring a NP assigned to the ECoE as well as an Epileptologist.
- Establish employment training program for Veterans with Epilepsy in collaboration with local Epilepsy Advocacy & Employment Group, Inc. based in Minneapolis.
FY13 Accomplishments:

- **Increased staff:**
  - Administrative Officer – Amy Childers
  - Robert Kotloski – Neurologist
- Madison ECoE has partnered with CCU to provide continuous telemetry and video observation monitoring for all EMU patients.
- Continued EMU service with 49 patients studied from 6 VISNs and 17 medical centers.
- Performed 1 VNS and 2 surgeries.
- Outpatient EEG laboratory received ABRET accreditation for 5 years.

Telehealth / Education / Outreach Activity:

- Madison ECoE EEG Technologists provide outreach and education support to Iron Mountain EEG Technologist. Their Technologist spent one week at the Madison facility and received one on one intensive training.
- Epilepsy has initiated a Telehealth Clinic. Current clinics and time slots are being added to increase patient access.
- Madison ECoE employed a summer intern to develop patient outreach and curriculum needs
  - Surveyed patients on epilepsy and seizure needs
  - Patient brochures
  - Trifold for outreach events
  - Attended outreach events
  - Organized Epilepsy workshop for patients and caregivers
  - Collaborating on 2nd quick series booklet
- EEG Technologists attended the 2013 Annual ASET conference
- Continued educational contributions to EES and local EF programs
- Training of clinical neurophysiology fellows, neurology residents and medical students
- “Epilepsy Surgery and VNS”, Dr. Paul Rutecki, VA Employee Educational Services, July 2013.
“Post-traumatic Epilepsy” Dr. Paul Rutecki, Epilepsy Foundation Heart of Wisconsin annual meeting, April 26, 2013, Marshfield WI.

“Epilepsy in the Developmentally Disabled” Dr. Paul Rutecki, The Brookwood Community, Houston, TX, Oct 2012.


Challenges / Barriers:
- Implementation of the CITRIX Server
- Organization of SCAN-ECHO
- Retaining qualified Technologists
- Improving workload capture

Future Initiatives / FY14 Goals:
- Expansion of Telehealth and e-consults
- Implementation of CITRIX
- Organization of SCAN-ECHO
FY13 Accomplishments:
- Chief of staff approval to hire Nurse Practitioner for FY 2014.
- Chief of staff approval to hire Epileptologist for FY2014.
- Hired EEG technologist at GS9.
- Upgraded EMU equipment including seizure detection software and high-definition cameras.
- Redesign EMU with dedicated monitoring room and bedside monitoring.
- Implemented a rapid process improvement workshop for EMU focused to achieve high quality patient care.

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

Challenges / Barriers:
- Unable to hire a Nurse Practitioner assigned to the ECoE.
- Unable to hire an additional Epileptologist.
- Resistance to implementation to team work approach.
- Limited support from local administration and leadership.

Future Initiatives / FY14 Goals:
- Hire Nurse Practitioner.
- Hire an additional Epileptologist.
- Implement CITRIX server for off-site review.
- Increase the grade level of Chief EEG technologists from a GS9 to a GS10.
- Expand and increase utilization of tele-health clinical services to CBOC’s and to other facilities in VISN.
- Establish employment training program for Veterans with Epilepsy in collaboration with local Epilepsy Advocacy & Employment Group, Inc.
FY13 Accomplishments:

- Successful startup of Telemedicine Outpatient Clinic to Roseburg VAMC.
- Successful startup of Telephone Clinics for all PVAMC ECoE providers.
- Restart of our local patient education presentation series.
- Recruitment of second EEG Technologist.
- Established working partnership with PVAMC Public Affairs to use various social media outlets (Facebook, Twitter, and soon Flickr) to promote national and local ECoE Education Programs.
- Recruitment of a second ECoE fellow.
- Recruitment of ECoE Social Worker.
- Restructured clinic availability to meet increase in outpatient volume.
- Successfully worked with Neurology and DSS to capture all ECoE workload.
- Implementation of CPRS reminder template dialogue to help track ECoE patient outcomes.
- Startup of multicenter collaborative ECoE research project ‘Psychogenic Seizures in US Veterans.’
- Initiated training of NPs for other VAMCs participating in VISN 20 telemedicine pilot project (Office of Specialty Care Transformation; with MScOE and PADRECC).

Telehealth / Outreach / Education Activity:

- Dr. Salinsky presented a Patient Education talk on “Epilepsy 101” at PVAMC.
- Dr. Salinsky presented a National Provider Education Audio Conference on “PNES.”
- Dr. Boudreau presented a Patient Education talk on “Epilepsy and Sleep” at PVAMC.
- Ms. Evrard presented a National Patient Education Audio Conference on “The Social and Economic Impact of Epilepsy.”
- Dr. Boudreau restructured and expanded the Clinical Neurophysiology Fellow Lecture Series Program.
• Established networking relationship with Epilepsy Foundation NW to promote local ECoE Services and Education Programs.
• Ms. Evrard established quarterly Epilepsy and Seizure Education Class with the PVAMC Nursing Staff.
• Mr. Slade represented the local ECoE as a member of the PVAMC Veterans Health Education Committee and updated hospital staff on ECoE Patient and Provider Education Programs.
• Ms. Evrard collaborated with the ECoE Workgroup in developing the EMU Safety Video now available in TMS for CME.

**Challenges / Barriers:**

- Space is an on-going barrier to program growth. Existing space will be taken out of service and no replacement has been located. Existing space inadequate with 6 staff sharing 2 offices.
  - Private Space is needed for telemedicine clinic. Presently the clinic is operating in a shared space.
  - Storage is needed for ECoE-EMU archives.
- The lack of a second EEG Technologist has hampered the number of patients that could be admitted in the EMU. Position was filled Q4.
- Establishing telemedicine or tele-EEG programs with other VAMCs has been problematic due to lack of resources at the spoke sites. This is being addressed as part of our VISN 20 pilot project.

**Future Initiatives / FY14 Goals**

- Startup of telemedicine clinic to Boise, Idaho (tentatively Q1 2014).
- Startup of tele-EEG (remote EEG acquisition) with several additional VAMCs (Spokane, Walla Walla, Anchorage) as part of VISN 20 pilot project. Scheduled for Q1-2 2014.
- Relocation of the epilepsy center offices (Q1 2014).
- Recruitment of additional Epileptologist, Dr. V. Wong.
- Submission of VA ECoE multicenter grant ‘TBI and Psychogenic Seizures’ (Salinsky).
- DOD TBI Initiative Grant Submission (Boudreau).
FY13 Accomplishments:

- The ECoE Telehealth clinic is up and running as of May 2013. The remote site is the Walla Walla VA in eastern Washington. Since May we have been seeing two patients a month with great success. The patients, physicians and nurse practitioner have been very pleased with this new dimension of patient care.
- Competency checklists for nurses, licensed practical nurses and nurses aids (developed by the Nursing Workgroup) have been implemented on the Epilepsy Monitoring Unit (EMU).
- Pocket cards outlining seizure assessment and care during a seizure were distributed to nursing staff on the EMU.
- A system for improved monitoring of inpatients undergoing video-EEG monitoring during evenings and weekends is being established.
- Peer reviewed publications of original scientific research (four articles) and presentations at national meetings.

Telehealth / Outreach / Education Activity:

- The ECoE Telehealth clinic at Walla Walla remote site began in May 2013.
- In September the Seattle ECoE staff and a reporter from the Tacoma News Tribune will develop a feature article that will be published in the Military News section of the Tacoma News Tribune which has over 230,000 subscribers on “TBI and ECoE in Seattle and the Northwest.”
- ECoE staff at VA Puget Sound provides bedside education to medical students and Neurology, Psychiatry, and Internal Medicine residents on a weekly basis. EEG is reviewed with Neurology residents on a weekly basis.
- ECoE staff at VA Puget Sound has provided formal didactic lectures to VA Puget Sound and University of Washington staff on seizure/epilepsy classification (Ransom) and treatment of seizures (Ozuna). Other didactic lectures have been given to Neurology residents, graduate students, and undergraduate students (Ransom/Spain).
- ECoE staff was involved in the production of a national training video for VA nurses on EMU safety (Ransom/Ozuna/Perkins)
• Seizure/epilepsy lectures were given to the Northwest Consortium of Critical Care Nurses training program, three sessions in the past year (Ozuna).
• A patient educational booklet entitled “Living with Epilepsy” was created, material covered includes information on new onset seizures, antiepileptic drugs, first aid for seizures, and safety guidelines.

Challenges / Barriers:
• As stated last year hiring an additional EEG technologist has not been possible to date. Therefore the capacity to monitor multiple patients in the EMU has been limited by workload constraints of the two EEG technologists.
• The Seattle facility is in the midst of a major remodeling project which will require the Neurology and ECoE departments to relocate to a new site of the hospital. This relocation will include the EMU lab as well as our EMU in-patient room located on the medical nursing unit which will occur in early 2014. EMU services may be disrupted during this time.

Future Initiatives / FY14 Goals:
• Establishment of telehealth services with Spokane, WA and Anchorage, Alaska VAs.
• We are working with Neuropsychologists at the VA Puget Sound to establish a CBT clinic for patients with psychogenic nonepileptic seizures.

Other Information:
• Judy Ozuna serves as chair for the ECoE nursing workgroup. This group has revised the EMU consent form in CPRS and has finalized an EMU safety video that is in TMS for national use. A tool is being developed for myhealthEvet that staff can use to improve counseling of patient’s on self-management techniques.
SOUTHEAST REGION

FY13 Accomplishments:

- National CPRS templates in piloting phase, pending national release prior to end of FY13. National CPRS templates were built and tested on three SE sites Miami, Gainesville and Durham. AAN measures were incorporated in the templates and NIH common data elements were included for future participation in NIH funded studies.
- Facilitated the completion of VHA National Guidebook. The guidebook provides a comprehensive review of epilepsy for specialists. Topics include Clinical Aspects, Diagnostic Evaluations, Treatments, and Special Situations such as post traumatic epilepsy, psychiatric comorbidities, etc.
- Facilitation of national integrated neurology pilot in VISN 6 with collaboration with VISN 5 & 20.
- Hired psychotherapist. A big landmark; will help in better treatment of PNES patients.
- Hired additional 4/8 neurodiagnostic specialist
- Facilitation of referral infrastructure between ECoE and consortium sites resulting in addition Inter-facility consult relationships.
- Regional SE ECoE Strategic Planning Meeting attendees included consortium members and affiliates. Collaboration on project activities valuable for “buy in” and improved access for Veterans.

Telehealth / Outreach / Education Activity:

- Completed training video for national database templates. A comprehensive video provides step by step instructions to providers for entering data in the templates for capture of critical information. It is available on national SharePoint and SE SharePoint.
- Co-sponsored patient symposium with NC Epilepsy Foundation.
- Completed training video series for patient symposium. Three volume videos topics included TBI and Epilepsy, New Drugs for Seizures and VA Epilepsy Disability. Videos are available to patients at SE ECoE libraries and will soon be accessible via the web.
- Collaborated with Florida Epilepsy Foundation on epilepsy seizure calendar project.
- Collaborated with Tennessee Epilepsy Foundation on education project.
- Completed 2nd education series on statistics for evidence based medicine. Second series included lectures on five topics. Altogether 13 lectures with variety of topics have been covered. Audio files are accessible on VA computers on www.epilepsy.va.gov/Statistics.

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**Challenges / Barriers:**
- Provider credit for participants in monthly education/consultation calls.
- Establishing new referral paradigm.
- Technology for remote EEG readings.

**Future Initiatives / FY14 Goals:**
- Coordinating annual regional patient symposium that will rotate locations across the region. Symposium at each site will allow patient education opportunities, outreach to epilepsy foundations and other stakeholders and more collaboration with consortium members.
- Remote EEG reading capabilities across the region. VISN 6 application for tele-EEG store and forward in process.
- Remote LTM monitoring project. Completion of this project will provide timely long term video monitoring for patients. It will improve the efficiency of long term video clinics by eliminating challenges related to the sitters/observers for specified testing.
**FY13 Accomplishments:**

- Selected as one of the pilot sites for the national VA Integrated Neurology Project, the goal of which is to establish an infrastructure to connect Veterans from anywhere in the US to the most appropriate subspecialty centers within the VA, especially through the use of telemedicine.
- Performed surgical brain resection towards the goal relieving seizures in a Veteran.
- Launched HL7, allowing graphical EEG data to be stored within the VA medical records so that any VA physician can access them.
- Hired a director to focus on the Durham ECoE.

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Hired a psychotherapist for the treatment of Veterans at the Durham ECoE who have significant psychiatric comorbidities or psychogenic nonepileptic seizures through techniques such as cognitive behavioral therapy.

**Telehealth / Outreach / Education Activity:**
- Expanded the reach of Durham epilepsy practitioners by adding two additional Tele-Epilepsy clinics, Fayetteville and Salisbury, allowing Veterans to see their practitioners remotely.
- Implemented and encouraged the use of E-consults, allowing VA physicians to consult with epilepsy specialists more efficiently through the review of medical records.
- Successfully organized a day-long VA Patient Symposium with presenters from across the community sharing with Veterans the various aspects of epilepsy care.
- Epilepsy nurse practitioners ran bimonthly support groups for Veterans with epilepsy.
- Continued participation in monthly SE ECoE conferences to discuss the treatment of complicated cases of epilepsy with experts across the region.

**Challenges / Barriers:**
- Need to increase access to observers or sitters in the epilepsy monitoring unit, which is often a limiting factor from patients getting epilepsy monitoring.
- Challenges with the use of blue tooth video sync with ambulatory EEG’s.
- No after hour or weekend EEG tech coverage limits inpatient monitoring.
- Continue to improve referrals and outreach to Veterans with epilepsy.
- Need to improve technical access capabilities of vendors, as technician trouble shooting is often lengthy.

**Future Initiatives / FY14 Goals:**
- Meet the aggressive goals of expanding patient outreach as set out by the Integrated Neurology Project, as outlined above.
- Increase the number and improve the process of referrals and access to the EMU, thus increasing the pool of potentially successful epilepsy surgery candidates.
- Offer cognitive behavior therapy to Veterans, such as those with PNES.
- Improve the technical process of communications and conferencing between ECoE sites.

**Other Information:**
- Collaborate with other local neuro-diagnostic resources to implement a new paradigm to meet the needs of Veterans presenting with sleep issues.
FY13 Accomplishments:

- Continuation of ECoE tele-epilepsy services.
- Growth in IOM surgeries.
- Outpatient satisfaction survey being distributed.
- Our new epileptologist, Dr. Andres Kanner has join us in Dec and has special interest in research of epilepsy comorbidities in the veterans.
- In process of hiring a fee bases EEG tech.
- Use of Epilepsy Clinic template with database/registry capabilities.
- Access to diagnostic procedures and Epilepsy clinics have been improved to meet the target of scheduling patients within 14 days of desired date.
- Establishment of clinical practice guidelines in CPRS.
- On-call tech and physician coverage has been expanded to cover at all times to include weeknights and weekends.
- Remote EEG viewing capabilities improved.
- Use of telephone encounters to improve workload.
- EEG Lab is a site for education and training of new students for Neurodiagnostic programs.
- Maintained the load of EMU procedures done weekly.
- Upgrade MIT tech to a leading Tech position.

Education / Outreach Activity:

- Educational lectures given to the sitters and nurses: Early recognition of seizures at the EMU and plan of action. Lectures provided by Dr. Lopez.
- 4 lectures per year given to the Fellows and Residents.
- Weekly surgical/management of intractable epilepsy attended by multidisciplinary care of Neuropsychologist, Surgery and Epileptologist, residents and Neurophysiology fellow.
- E-consults implemented.
- Participation of the monthly meeting SE ECHO epilepsy surgery conferences.

**Challenges / Barriers:**
- Bureaucratic processes and delays for hiring.
- Limited amount of space.
- Hiring delays of intra-operative EEG technologist and staff for IOM cases.

**Future Initiatives / FY14 Goals:**
- Grow to a level of tertiary care that can do phase 2 evaluation. That will imply having a neurosurgeon trained in epilepsy surgery, capacity to perform WADA test and SPECT.
- Increase area of research involving epilepsy and PTSD as well as epilepsy and depression.
- Accreditation of the EEG lab by ABRET (American Board of Registration of electroencephalographic and evoked potential technologist.
- In-house education for EMU techs and residents.
- SCAN-ECHO.
- Increase research activity investigating topics in Epilepsy and PTSD; Epilepsy and Depression and Epilepsy and TBI.
- Host a patient symposium with patients with epilepsy 2014.
FY13 Accomplishments:

- Competency Development Leadership Program 2013 graduate.
- SE ECOE Region Validation Study Review of Veterans on Seizure Medications.
- Installed HL-7.
- Enabled Remote EEG reading.
- Installed Persyst Seizure Analysis Software.
- Established mechanism to pay for sitters for Epilepsy Monitoring Unit patients.
- Recruited additional epileptologist - 2/8th FTEE.
- Requested one new Clinical Neurophysiology Fellowship line.
- Personnel have been trained in workload capture procedures.

Telehealth / Outreach / Education Activity:

- Aug 1, 2013 ECOE Women with Epilepsy Presentation
- Quarterly epilepsy lecture to VA-UF nursing students.
- Co-authored chapter Social Issues in Epilepsy for SE ECOE Region handbook.
- Completed Neuroimaging chapter for VA Epilepsy Handbook.
Challenges / Barriers:
- Lack of mental health care providers for Veterans with non-epileptic seizures.

Future Initiatives / FY14 Goals:
- Telehealth Education.
- SCAN-ECHO.
- Televideo consult for Orlando VA referrals.
- Establish Neurophysiology Fellowship at GVAMC.
- Coordinate with Nursing Leadership on inservice training of staff regarding seizures.

Other Information:
- MRI studies to identify white matter tract lesions in patients with temporal lobe epilepsy, in comparison to normal volunteers, using T1 and diffusion tensor imaging.
FY13 Accomplishments:
- Hired a second EEG technician to fill a vacancy open for nearly one year.
- Re-classified EEG technician positions to Grade 8 and Grade 9.
- Expanded Inpatient EMU monitoring (Phase I) and cEEG ICU monitoring (54 patients for 122 total days of monitoring).
- Improved workload capture of procedures and clinical encounters.
- Acquired an ambulatory EEG system.
- Implemented quality improvement metrics specific to VA epilepsy patients with monthly chart reviews to ensure quality measures are met.
- Received approval for 2 dedicated EMU beds in a new 12 bed medical step-down unit which is currently under construction.

Telehealth / Outreach / Education Activity:
- Increased access to care for epilepsy patients who were previously lost to follow-up through utilization of telephone clinics.
- Led an epilepsy education lecture series which met every other month for patients/caregivers with post-traumatic epilepsy in collaboration with the Polytrauma service.
- Participated in every other month epilepsy educational/outreach sessions for patients/caregivers with epilepsy in conjunction with the Epilepsy Foundation of Florida.
- Developed and presented a “Basics of EEG” lecture series for neurology residents and incoming fellows (12 one hour lectures).
- Presenting VA Dept of Medicine Grand Rounds: “Diagnosis and Management of Status Epilepticus”
- Supervised 1 full-time clinical neurophysiology fellow at the VA (rotates between 2 Fellows).
- Supervised PGY 4 neurology residents during their 4 week neurophysiology rotations at the VA.

Challenges / Barriers:
- Limited weekend EEG tech coverage limits the duration of elective EMU monitoring sessions to 4 days.
- Limited availability of sitters for EMU patients limits the number of patients monitored.
- Limited administrative support dedicated to the ECOE.
- Incomplete capture of outpatient clinic workload. Epilepsy patients seen and staffed by an epileptologist in the general neurology residents’ clinics are not being captured.
- Limited/outdated space (inpatient and outpatient clinics).

Future Initiatives / FY14 Goals:
- Hire an administrative assistant dedicated to the ECOE.
- Hire an additional epileptologist.
• Improve outreach through e-consults and expanded tele-health.
• Re-structure outpatient resident clinics to capture epilepsy workload.
• Obtain 2 EMU beds in new medical Step-Down Unit (to address patient safety/observation issues).
• Implement the standardized patient encounter templates developed by the ECOE.
• Utilize the clinical database to develop research collaborations.
• Establish remote EEG reading capability.
NATIONAL WORKGROUPS

CLINICAL PROCEDURES WORKGROUP

Stephen Holloway, MD, Chair
Ellen Matthiesen, Administrative Support

<table>
<thead>
<tr>
<th>Workgroup Members</th>
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<tbody>
<tr>
<td>Stephen Holloway, Minneapolis</td>
<td>Ellen Matthiesen, Houston</td>
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<td>Karen Parko, San Francisco</td>
<td>Rizwana Rehman, Durham</td>
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<td>Ryan Rieger, San Francisco</td>
<td>Huned Patwa, West Haven</td>
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<td>Elizabeth Barry, Baltimore</td>
<td>Aatif Husain, Durham</td>
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<td>Pamela Kelly, Durham</td>
<td>Richard Hrachovy, Houston</td>
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<td>Kathy Tortorice, Pharmacy Benefits Management</td>
<td>Nina Garga, San Francisco</td>
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<td>Regina McGuire, Baltimore</td>
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FY13 Highlights and Accomplishments:

- EEG Tech Classification and Upgrade/Promotion
  - ECoE Site Directors gave examples of obstacles they experienced regarding new hire or upgrade
  - Support Network formed (Ryan Rieger, Margaret Young, Ronda Tschumper, Ellen Matthiesen)
  - Several issues/problems identified, addressed and resolved
- Pharmacy
  - Separate workgroup has been established
    - Kathy Tortorice continues as liaison to ECoE
- Patient Satisfaction Survey
  - Rolled out nationally

Future Initiatives / FY14 Goals:

- Prioritize which projects below should become initiatives for FY13.
  - Recruit Directors to lead the selected projects.
- EEG remote reading with Telehealth workload credit
  - Centralize resources – Securing a shared server
    - Explore possibility of Neuroworks software being installed on Citrix server
- EEG Tech Classification
  - Send inquiry to all VA facilities asking them to identify issues with promotion or new hires
- Develop and formalize telehealth and rural health outreach to meet VACO expectations
- PAC System and clinical informatics issue: Work on how to get programs that can read any MRI format on VA Computers.
- Develop Seizure Monitoring Unit Policy and Guidelines in collaboration with Nursing Workgroup
- Explore possibility of multiple ECoE sites sharing an EEG sitter or using an outside service.
  - (SE Region taking the lead on this)
- Design improved communication in Vista Web with our Hub and Spokes.
# WORKLOAD STANDARDIZATION WORKGROUP

**Nina Garga, MD, Chair**  
Ellen Matthiesen, Administrative Support

## Workgroup Members

<table>
<thead>
<tr>
<th>Member</th>
<th>Location</th>
<th>Role</th>
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<tbody>
<tr>
<td>Karen Parko, San Francisco</td>
<td>Pamela Kelly, Durham</td>
<td>Laura Helks, DSO Management Analyst</td>
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<tr>
<td>Nina Garga, San Francisco</td>
<td>R. Andrew David, Baltimore</td>
<td>Mary F. Johnson, HIMS Specialist</td>
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<tr>
<td>Ryan Rieger, San Francisco</td>
<td>Stephen Holloway, Minneapolis</td>
<td>Nancy Johnson, DSS Lead Clinical Analyst</td>
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<tr>
<td>Richard Hrachovy, Houston</td>
<td>Winona Finley, Durham</td>
<td>Ellen Zufall, HSS</td>
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<td>Ellen Matthiesen, Houston</td>
<td>Pamela Billings, DSS Program Manager</td>
<td>Michelle Scheffler, DSS Site Manager</td>
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<td>Rizwana Rehman, Durham</td>
<td>Lynda Dent, Minneapolis</td>
<td>Joseph Elayidathukudiyil, MAS, Coder</td>
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<td>Steven Wilson, Program Analyst</td>
<td>Michael Ayers, Program Analyst</td>
<td>David Osborne, Operations Manager</td>
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<td>Laurene Miller, HIMS</td>
<td>James Healy, DSS</td>
<td>Aatif Husain, Durham</td>
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<td>Amy Childers, Madison</td>
<td>Deanna Bishop, VSSC</td>
<td>Betsy Lancaster, VSSC</td>
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<td>Fred Kirkland, VSSC</td>
<td>Nancy Lapointe, DSS</td>
<td>Jill Powers, Deputy Director VSSC</td>
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<td>Tung Tran, Durham</td>
<td>Debra Lea Unruh, DSS</td>
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## FY13 Highlights and Accomplishments:

- Workload capture - process has been standardized and all workload is accurately being captured
  - **Workload Standardization – Stop Codes**
    - Outpatient Clinic – 345 Primary
    - EEG – 106 Primary, 345 Secondary
    - EEG Reading – Store and Forward 106 Primary, 696 Secondary
    - Video Telehealth:
      - 345 Primary, 692 Secondary (provider site within VAMC/CBOC)
      - 693 Secondary (provider outside VAMC)
    - Telephone Clinic – 325 Primary, 345 Secondary
    - EMU – 128 Primary, 345 Secondary
    - Group Education/Support Groups – 345 Primary, 720 Secondary
    - Individual Education – 345 Primary, 714 Secondary
    - EConsult and SCAN-ECHO – 345 Primary, 697 Secondary
- National Standardized Epilepsy Encounter Forms have been developed and revised, and have been submitted for review and approval to Clinical Informatics, with goal to roll out at start of FY14. The encounter forms include
  1. Streamlined diagnostic codes for epilepsy and other conditions that might mimic epilepsy or lead to EEG testing
  2. Focused listings of E&M codes and procedure codes utilized by ECoEs to improve accuracy of workload capture more efficiently.
  3. Division into two forms, one for E&M coded visits (face-to-face and Telehealth visits), and one for procedure-coded visits (all others including telephone clinics).

## Future Initiatives / FY14 Goals:

- Finalize the Workload Standardization Guide Book
- Roll out the National Standardized Encounter Form
- Improve DSS mapping at each ECoE site
- Development of Epilepsy Proclarity data cubes or other standardized reporting mechanism
DATABASE WORKGROUP

Aatif Husain, MD, Chair
Pamela Kelly, MBA, HCM, Administrative Support

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<tr>
<th>Workgroup Members</th>
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<tr>
<td>Alexander Zuleta, Miami</td>
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<td>William J. Culpepper, Baltimore</td>
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<td>Pamela Kelly, Durham</td>
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<td>Maria Lopez, Miami</td>
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<td>Alan Towne, Richmond</td>
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<td>Paul Rutecki, Madison</td>
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<td>Tung Tran, Durham</td>
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<td>James Chen, Los Angeles</td>
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<td>Margaret Young, Durham</td>
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<td>Derecus Slade, Portland</td>
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<td>Angela Vargas, San Francisco</td>
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FY13 Highlights and Accomplishments:
• Clinical Templates (New and follow-up) released as National Patch PXRM*2.0*3.0 in September 2013.
• Instructional overview training video for template completed and made available on the National and SouthEast Region SharePoint sites.

Future Initiatives / FY14 Goals:
• Installation and implementation of Clinical Templates at all 16 ECoE sites.
• Installation and implementation of Clinical Templates at ECoE consortium sites.
• Additional training focused on appropriate utilization of clinical templates.
• Identify location for the collection of health factor data.
• Identify SQL programmer resource to maintain database.
### PHARMACY WORKGROUP

**Aatif Husain, MD, Co-Chair**  
**Kathy Tortorice, PharmD, BCPS, Co-Chair**  
**Pamela Kelly, MBA, HCM, Administrative Support**

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<td>Teresa Chiao, San Francisco</td>
<td>Barry Gidal, Madison</td>
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<td>Arif Kabir, Baltimore</td>
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<td>Adam Clark, Gainesville</td>
<td>Pamela Kelly, Durham</td>
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<td>Sunita Dergalust, Los Angeles</td>
<td>Kathy McMillan, San Antonio</td>
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<td>Winona Finley, Durham</td>
<td>Viet-Huong Nguyen, Los Angeles</td>
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**FY13 Highlights and Accomplishments:**

- Workgroup organized to address a number of specific pharmaceutical concerns
  - Membership limited due to conflict of interest disclosures.
  - Collaborative workgroup included pharmacist, clinicians and administrators.
  - Partnership with VHA National Pharmacy Management Benefits (PMB)
- The first draft of a medication guidance table was completed.
  - Guide expected to be a tool for neurologist and generalist.
  - Based on AAN and peer review recommendations.
- Considered potential surveillance and research project opportunities
  - Evaluation of prescribed AEDs to epilepsy patients
  - Assessment of Psychiatric Clinical Outcomes of Potential Pharmacokinetic Interactions in Veterans with Epilepsy

**Future Initiatives / FY14 Goals:**

- Finalize the Medication guidance table
- Work with PMB on multiple surveillance projects.
- Guidelines for treating status – non-convulsive status
CLINICAL RESEARCH WORKGROUP

Alan Towne, MD, MPH, Chair
R. Andrew David, MS, MHSA, Administrative Support

France, Providence

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<th>Workgroup Members</th>
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<tr>
<td>Alan Towne, Richmond</td>
<td>Katherine MacMillan, San Antonio</td>
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<td>R. Andrew David, Baltimore</td>
<td>Curt LaFrance, Providence</td>
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<td>David Chen, Houston</td>
<td>Karen Parko, San Francisco</td>
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<td>Amy Childers, Madison</td>
<td>Jackie Pugh, San Antonio</td>
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<td>Hamada Hamid, West Haven</td>
<td>Mary Jo Pugh, San Antonio</td>
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<td>Rizwana Rehman, Durham</td>
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<td>Allan Krumholz, Baltimore</td>
<td>Linda Benson, Richmond</td>
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FY13 Highlights and Accomplishments:

- EMU database developed and rolled out to all sites in January 2013
- Developed EMU diagnosis classification guidelines to create uniform reporting of diagnoses
- Sent ECoE Clinical Research Workgroup representatives to Curing the Epilepsies conference at NIH in April 2013
- Policy for Optimal Epilepsy Management (POEM; Patients Like Me) study began recruiting from several ECoE sites
- RECORD – Quality study begun
- Development of CBT for PNES

Future Initiatives / FY14 Goals:

- Develop Patient Centered Outcomes Research Institute (PCORI) proposal from ECoE sites
- Develop proposal for joint DoD/VA award: Chronic Effects of Neurotrauma Consortium (CENC)
- Develop viable protocol for post-traumatic epilepsy (PTE) and vagus nerve stimulation therapy (VNS) multi-site study
- Expand use of EMU database and explore potential research opportunities
- Conclude RECORD – Quality study
- Explore potential to collaboration with Integrated Neurology Project for quality/efficacy research
- Expand PNES Tele-mental health initiative to other ECoE’s and the Integrated Neurology Project
- Explore genomic partnerships between ECoE and the Million Veteran Program (MVP)
- Expand collaboration between the ECoE’s and the National Polytrauma Centers.
FY13 Highlights and Accomplishments:
- Successfully presented 10 lectures by different professionals to ECoE sites and non-ECoE sites across the nation
- Focus on post traumatic mechanisms, non-VA scientists presented to the group
- Created a SharePoint site to archive all lectures

Future Initiatives / FY14 Goals:
- Work with IRM and other staff to archive lecture audio files for review by all interested parties
- Continue to invite guest speakers to discuss upcoming research topics
- Invite consortium and non-consortium sites to monthly calls
- Build collaborative research projects amongst ECoE basic scientists
FY13 Progress and Accomplishments:

- Completion and distribution of ECoE Patient Education QuickSeries Handbook.
- National Patient Education Audio Conferences
  - 12-6-12 - Christopher Ransom, MD, Seattle - "Epilepsy and Seizures"
  - 2-7-13 - Gilbert Woo, MS, MFT-I, San Francisco - "Epilepsy and Depression"
  - 4-4-13 - Collette Evard, NP, Portland - "Epilepsy: Social and Economic Impacts"
  - 6-6-13 - Patricia Banks, RN, Cleveland - "Cognitive Effects of Epilepsy"
  - 8-1-13 - Denise Riley, ARNP, Gainesville - "Women With Epilepsy"
- National Provider CME Education Audio Conferences
  - 11-7-12 - Mary Jo Pugh, PhD, San Antonio - "Quality Indicators In Epilepsy Care" – 8 hours CME
  - 1-9-13 - Alan Towne, MD, Richmond - "Epilepsy and Traumatic Brain Injury" – 11 hours CME
  - 3-6-13 - Martin Salinsky, MD, Portland - "Posttraumatic Non-Epileptic Seizures" – 22 hours CME
  - 5-1-13 – Barry Gidal, MD, Madison - "Epilepsy Medication: Selecting Appropriate AEDs” – 6 hours CME
  - 7-10-13 - Paul Rutecki, MD, Madison - "Epilepsy Surgery and Vagus Nerve Stimulator” – 7 hours CME
- "Statistics In Evidence Based Medicine” presented by Rizwana Rehman, PhD, Statistician, SE ECOE
  - 8-7-13 - "Understanding P Value and Confidence Intervals" – 112 Lync participates
  - 8-14-13 – "Regression and Correlation” – 82 Lync participants
  - 8-21-13 – "Diagnostic Tests” – 71 Lync participants
  - 8-28-13 – "Survival Analysis” – 76 Lync participants
  - 9-4-13 – " Survey Research” – 57 Lync participants
- Development of National ECoE promotional materials, including brochure, business cards, logo stickers, lapel pins, seizure first aid postcard, and national video.
- Partnered with Anita Kaufmann Foundation for “Heads Up for Veterans” initiative that included TBI and seizure first aid flyer, websites, and Purple Day Awareness campaign.
- Writing of chapters for VA Provider Epilepsy Handbook.
- National ECoE SharePoint intranet portal for document sharing and calendar updates.
- Support local/regional educational offering and collaborations with Epilepsy Foundation and University affiliates.

FY14 Goals and Initiatives:

- Review / develop standardized education materials for distribution across the national ECoE.
- Develop and implement national patient education program.
  - VA Epilepsy Video Series production.
  - "Coping With Seizures" QuickSeries Handbook.
  - Epilepsy Caregiver Support Group Program.
- Develop and implement provider education CME, for physicians, nurses, and other allied health care.
  - Finalize VA Provider Epilepsy Handbook.
NURSING WORKGROUP

Judy Ozuna, NP, Chair
Stephanie Chen, MSN, MPH, NP-C, Administrative Support

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<thead>
<tr>
<th>Workgroup Members</th>
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<tbody>
<tr>
<td>Judy Ozuna, Seattle</td>
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<tr>
<td>Trudy Burgess, San Antonio</td>
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<td>Julia Coleman, Albuquerque</td>
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<td>Denise Riley, Gainesville</td>
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<td>Ryan Rieger, San Francisco</td>
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<td>Ann Carncross, Madison</td>
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<td>Regina McGuire, Baltimore</td>
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<td>Heather Hodges, Richmond</td>
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<td>Karen Parko, San Francisco</td>
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FY13 Progress and Accomplishments
- Produced "Safety in the EMU", nurse training video (via TMS) with post test (112 post tests, 220 completed evaluations).
- Revised EMU Consent Form in iMed consent.
- Developed/distributed pocket cards for nurses in the EMU on seizure assessment and care.
- EMU Competency Checklist for LVNs and CNAs.
- Shared best practices in telephone clinic, e-consults, SCAN-ECHO, telehealth.

Challenges / Barriers
- Ensuring the guidelines, competencies, EMU consent form are fully implemented at all sites.
- Networking with Non-ECoE VA sites.
- Sitters for EMU.
- Lack of mental health providers for PNES.

FY14 Goals and Initiatives:
- Patient Self Management Guidelines; for nurses, for patients, and provide national audio conference for nurses.
- Quick Series project: Collaborate with Madison ECoE re: special topics: coping, relationships, socioeconomic factors, memory, safety, sleep, SUDEP.
- Patient education videos (5-7 min. each):
  - Women and epilepsy
  - Mood disorders
  - Memory problems
  - First aid patient
  - Self-management tips
- Develop a reporting system to ensure all ECoEs are implementing guidelines, competencies, EMU consent form, CPRS seizure note template, etc.
- Collaborate with Epilepsy Foundation, University Epilepsy Centers, other nursing groups (AANN, AES Nursing group).
- Share work from this group with other VA facilities via ECoE Consortium Newsletter.
FY13 Highlights and Accomplishments:

- Worked with ECoE sites, consortium sites and non-consortium sites across the Nation to standardize EEG policy & procedure manuals
  - *Clinical Guidelines – American Clinical Neurophysiology Society
  - *Expected Technical Standards of Records
- Madison ECoE achieved ABRET Accreditation for Outpatient EEG laboratory

Future Initiatives / FY14 Goals:

- Continue working with other sites across the nation to standardize processes for Outpatient EEG laboratories
- Initiate ABRET standardization policy and procedures for the LTM across all sites.
- Medical Instrument Technicians (MIT)s – Graded Appropriately
- Increase participation through invitation to all ECoE sites and non-ECoE sites.
- Promote EEG and LTM Registration
  - BENEFITS: Confidence, Knowledge, Competency, Awareness, Professionalism, Marketability, Encourages Continuing Education
- Conference Call - Discuss LTM case studies (De-identified) from various sites
  - Patient History
  - Medications – changes
  - Day 1, Day 2, etc. - LTM technical quality, EEG changes
  - Caregiver? Sitter?
  - Did the patient have “target events/seizures”?
  - How long was the patient monitored?
  - EMU Discharge Classification
<table>
<thead>
<tr>
<th>Name</th>
<th>Fellowship</th>
<th>ACGME</th>
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<td><strong>San Francisco</strong></td>
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<td>Yana Kriseman</td>
<td>Polytrauma (Epilepsy)</td>
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Baltimore


Krumholz A, Hopp J. Epilepsy and Driving. UpToDate 2013 (web-published).


Durham


Houston


Los Angeles


Madison


Richmond


Richmond


Yablon SA, Towne AR: Post-Traumatic Seizures and Epilepsy, In: Brain Injury Medicine, CH 39, Demos Medical, New York, NY, 2012


San Antonio


San Francisco


Seattle


West Haven

Hamid H & Kanner AM Should antidepressant drugs of the selective serotonin reuptake inhibitor family be tested as antiepileptic drugs? Epilepsy & Behavior 2013; 26:261-265.

ABSTRACTS / POSTERS / PRESENTATIONS

Baltimore
Krumholz A, Sanchez A, Hopp J. Nonconvulsive status epilepticus: Value of a benzodiazepine trial for predicting outcomes. Presented at the American Academy of Neurology April 2012 and Published as an abstract in Neurology
Kabir A, Aquino K, Sanchez A, Krumholz A. Lacosamide therapy for intractable nocturnal frontal lobe epilepsy. International League Against Epilepsy Annual Meeting, Montreal Canada 2013 and Published as an abstract in Epilepsia
Krumholz A, Thomas D. Co-existing Epileptic and Psychogenic Seizures in an Epilepsy Monitoring Unit. Presented at International League Against Epilepsy Annual Meeting, Montreal Canada 2013 and Published as an abstract in Epilepsia
Krumholz A, Ting T, Polli J. A prototypic model for comparison of brand name and generic antiepileptic drug pharmacokinetics and bioequivalence. International League Against Epilepsy Annual Meeting, Montreal Canada 2013 and Published as an abstract in Epilepsia
Hopp J. “Vagus Nerve Stimulation in Adults” Society for Brain Mapping & Therapeutics Annual Congress, Baltimore, Maryland, 2013.
Sanchez A. “Epilepsy: What It Is and What We Do About It.” Epilepsy Foundation of the Chesapeake Region, 2013.

Durham
Tran T, Rehman R, Kelly P, Husain A. Epilepsy in the Veteran Health Administration: Demographics and Disease Frequencies. Poster 2013 American Epilepsy Society meeting.
Poster accepted to the 2013 American Epilepsy Society (AES) annual meeting on the epidemiology of VA patients with epilepsy.

Houston
**Madison**


AES Meeting 2012, Poster 1.027 Cech, C., Hanson, M, Ting, L, Langberg, T, Hutchinson, E, Rutecki, P, Sutula, TP Subtle seizures after TBI in a unique strain of kindling-susceptible rats: electrographic, behavioral, and phenotypic features.

SFN Meeting 2012 Poster 345.11 W. POTTER, A. S. ROOPRA, A. KIRCHNER, P. RUTECKI, C. BURGER, K. J. O’RIORDAN Heightened mGluR5-Erk signaling drives aberrant plasticity and epileptiform activity in a mouse model of Tuberous Sclerosis


**Miami**

Epilepsia partialis continua and palatal myoclonus. Poster accepted in the Florida neurological Society.

Poster submitted to 2013 AES regarding epidemiology of VA patients with epilepsy.

**Portland**

Dr. Salinsky presented at the annual course of the American Epilepsy Society (San Diego, CA.) on ‘Traumatic Brain Injury and Psychogenic Non-epileptic Seizures’.

Dr. Salinsky presented at the military SIG of the American Epilepsy Society (San Diego, CA.) on ‘Psychogenic Seizures in Veterans’.

Dr. Panduranga (fellow) presented on ‘Seizure Disorders’ at the VAMC Neurology Updates for General Practice.

Ms. Evrard presented best practices on E-Consults and Telephone Visits to the ECoE Nursing Workgroup.

Dr. Boudreau presented at the Airline Medical Directors Association (Chicago, IL) on Sleep Neuroimaging and TBI May 2013.

**Richmond**


**San Francisco**


International League Against Epilepsy, 10th European Congress on Epileptology, 2012 London, UK: “Addressing the Treatment Gap in Underserved Populations”, Parko K.


The VHA and Social Media: Lessons from the POEM study. Invited talk, Doctors 2.0 Conference, June 2013. Hixson JD.
July 2013. Hegde M. “Coping with Seizures.” Invited presentation to community at SFVAMC.

February 2013. Garga NI. “Women with Epilepsy.” Invited presentation to community at SFVAMC.

Seattle

Tao W, Higgs M, Spain WJ, Ransom CB. Postsynaptic GABAB receptors enhance GABAA receptor function in dentate gyrus granule cells. Society for Neuroscience, New Orleans, LA. 11/2012.

Ransom CB. Rapid regulation of tonic GABA currents in hippocampal neurons. Winter Conference for Brain Research, Breckenridge, CO. 1/2013.

Higgs, M. K+ channels affect cortical neuron input encoding on multiple time scales. Invited talk at the German Neuroscience Conference, Göttingen, Germany. Symposium: Timescales in neuronal population encoding and their biophysical basis. 5/14/2013.


Tampa

Rincon, N, Bozorg, A, Frontera, A, Benbadis, S. Idiopathic Generalized Epilepsy vs Frontal Lobe Epilepsy: A Common Dilemma at Epilepsy Centers. Accepted for presentation at the upcoming 2013 AES meeting.

West Haven


Interview with Jeanne Arsenault, APRN on local Veteran Radio Program 7/19/13.

Interview with Jeanne Arsenault, APRN on Citizen’s Public TV, 7/24/13.
RESEARCH

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

1) RECORD Quality (Mary Jo Pugh, PI)
2) Psychogenic Seizures (Martin Salinsky, PI)

### Baltimore

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<td>Krumholz, Allan - Co-Investigator; Hopp, Jennifer, Co-Investigator</td>
<td>Psychosocial Status and Health Related Outcomes in Patients with Psychogenic Seizures Compared with Psychogenic Movement Disorders</td>
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<td>Collaborative project involving University of Maryland Epilepsy Center and Movement Disorders Center, Department of Neurology.</td>
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<td>Tang, Cha-Min - PI</td>
<td>Injury Induced Neuronal Hyperexcitability To better understand how deafferentation result in dendritic hyperexcitability and post-traumatic epilepsy</td>
<td>06/2008</td>
<td>05/2012</td>
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<td>Tang, Cha-Min - Co-Investigator</td>
<td>Pre- and Postsynaptic Consequences of Traumatic CNS Injury” To provide technical assistance in the optical aspects of this project (i.e. photolysis and imaging)</td>
<td>12/2007</td>
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<td>Tang, Cha-Min - PI</td>
<td>A computer vision system for the blind veteran To develop a computer vision system for the blind</td>
<td>04/2009</td>
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<td>Kabir, Arif – Co - investigator</td>
<td>Pharmacokinetics Studies of Epileptic Drugs in Patients</td>
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<td>Epilepsy – Home Automated Telemangement (E-HAT)</td>
<td>06/2012</td>
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### Durham

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<td>Kelly, Pamela</td>
<td>Multifactor analysis for the Evaluation of VHA Epilepsy Centers of Excellence</td>
<td>06/12/2012</td>
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<td>VA Locally Initiated Pilot Study</td>
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<td>FitzGerald, David, MD; Bauer, Russel, PhD; Carney, Paul, MD</td>
<td>MRI studies to identify white matter tract lesions in patients with temporal lobe epilepsy, in comparison to normal volunteers, using T1 and diffusion tensor imaging.</td>
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<td>Haneef, Zulfi Principal Investigator</td>
<td>Lateralization of TLE using fcMRI and DTI</td>
<td>01/01/2012</td>
<td>12/31/2013</td>
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<td>Hrachovy, Richard Co-Investigator</td>
<td>Mission Connect Mild TBI Translational Research Consortium (DAMD W81XWH-08-2-014)</td>
<td>09/01/2008</td>
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<td>Hrachovy, Richard Co-Investigator</td>
<td>Infantile Spasms: Tools for Therapies (1 R21 NS062992-01A1)</td>
<td>02/01/2010</td>
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<td>Hrachovy, Richard Co-Investigator</td>
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<td>2/1/2013</td>
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<td>Chen, David K Principal Investigator</td>
<td>Measuring Resource Overutilization as a Surrogate for Breeches in Patient Safety and Clinical Quality in the Care of Patients with Psychogenic Epileptic Events (PNEE).</td>
<td>05/2012</td>
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<td>Advancing Clinical Excellence (ACE) Selection Committee. Health Care Delivery System Trainee Grant.</td>
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<td>Yoshor, Daniel Principal Investigator</td>
<td>Neural Mechanisms of Rapid Recognition in Human Ventral Temporal Cortex</td>
<td>10/01/2010</td>
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<td>Yoshor, Daniel Co-Investigator</td>
<td>Responsive Neurostimulator System (RNS) Clinical Investigation</td>
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<td>11/30/2014</td>
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<td>07/01/2011</td>
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<td>Escueta, Antonio Delgado, PI</td>
<td>Discovering more Juvenile Myoclonic Epilepsy Genes by a Consortium</td>
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<td>Imaging PTEN induced changes in adult cortical structure and function in vivo</td>
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<td>Hippocampal network mechanisms underlying enhanced cognition in a model of autism spectrum disorder</td>
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<td>Alterations in inhibitory synaptic input during decision making in mice navigating a virtual reality task</td>
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<td>Systems level electrophysiology for addiction and reward research.</td>
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<td>Baca, Christine, PI</td>
<td>Long-term outcomes of childhood-onset epilepsy</td>
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<td>Risk factors for delayed pediatric resective epilepsy surgery over time</td>
<td>07/2011</td>
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**Madison**

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<td>Kotloski, Robert. Sutula, Thomas. Rutecki, Paul</td>
<td>Epileptogenesis after traumatic brain injury</td>
<td>07/01/2013</td>
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<td>VA Merit Review</td>
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<tr>
<td>Salinsky, MC Whitham, R. Quinn, J Channon, P</td>
<td>VISN 20 Telemedicine Pilot Project</td>
<td>10/01/2013</td>
<td>09/30/2014</td>
<td>Office of Specialty Care Transformation</td>
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### Richmond

<table>
<thead>
<tr>
<th>Principle Investigator</th>
<th>Grant/Study Title</th>
<th>Project Start Date</th>
<th>Project End Date</th>
<th>Funding Source</th>
</tr>
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<tbody>
<tr>
<td>Towne, Alan</td>
<td>A pilot and feasibility study: Seizure monitoring for veterans from the OEF/OIF cohort with history of blast-associated mild TBI</td>
<td>2011</td>
<td>Ongoing</td>
<td>VA Health Services Research and Development DHI-09-237</td>
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<tr>
<td>Towne, Alan</td>
<td>Status Epilepticus Project VCU Epilepsy Research Center</td>
<td>2000</td>
<td>Ongoing</td>
<td>NIH#5POINS25630</td>
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<tr>
<td>Towne, Alan</td>
<td>Rapid anti-epileptic medication prior to arrival trial (RAMPART) neurological emergencies treatment trials (NETT)</td>
<td>2008</td>
<td>2013</td>
<td>Network Clinical Site Hubs – Award # 1U10NS058966-01 NINDS/NIH/DHHS</td>
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<tr>
<td>Waterhouse, Elizabeth</td>
<td>Open-label study to assess the safety and tolerability of intravenous carbamazepine as short-term replacement of oral carbamazepine in adult patients with epilepsy</td>
<td>2011</td>
<td>2013</td>
<td>Lundbeck, Inc</td>
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<tr>
<td>Waterhouse, Elizabeth</td>
<td>An open-label, 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</td>
<td>2008</td>
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### San Antonio

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<tbody>
<tr>
<td>Pugh, Mary Jo</td>
<td>Restructuring Epilepsy Care: Organizational Dynamics and Quality: RECORD Quality</td>
<td>05/01/2012</td>
<td>04/31/2016</td>
<td>VA HSR&amp;D</td>
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<tr>
<td>Pugh, Mary Jo</td>
<td>Sequelae of Penetrating TBI in OEF-OIF Veterans: a Pilot Study</td>
<td>08/15/2013</td>
<td>08/14/2014</td>
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<tr>
<td>Hixson, John D</td>
<td>The POEM study: Policy for Optimized Epilepsy Management</td>
<td>03/01/2012</td>
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<td>UCB Pharma</td>
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<tr>
<td>Kuzniecky, Ruben, Lowenstein, Daniel, French, Jacqueline</td>
<td>The Human Epilepsy Project (Dr. Hegde is UCSF Site PI, applying to CHR for SFVAMC patient recruitment)</td>
<td>07/01/2012</td>
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<td>Epilepsy Study Consortium</td>
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<tr>
<td>Mueller, Susanne</td>
<td>Improved non-invasive Focus Localization in Partial Epilepsy with DSASL MRI</td>
<td>1/1/2013</td>
<td>12/31/2014</td>
<td>UCSF REAC (Research Evaluation and Allocation Committee)</td>
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<td>Parko, Karen (site PI)</td>
<td>Psychogenic Non-epileptic seizures in U.S. Veterans (Co-investigator and site PI)</td>
<td>08/12/2012</td>
<td>08/12/2016</td>
<td>Merit Review Award: Department of Veterans Affairs</td>
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<td>Parko, Karen</td>
<td>Specialty Care Access Networks—Extension for Community Healthcare Outcomes (SCAN-ECHO), VISN 21 Epilepsy Disease State</td>
<td>05/1/2012</td>
<td>04/30/2014</td>
<td>National VA Program Grant</td>
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<tr>
<td>Spain, William</td>
<td>Mechanisms of synaptic integration in central neurons (Competitive renewal approved for four years to start 10/1/2013)</td>
<td>04/01/2009</td>
<td>03/31/2013</td>
<td>Veterans Healthcare Administration</td>
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<td>Spain, William</td>
<td>Slowly inactivating K+ channels in neocortical pyramidal neurons</td>
<td>07/01/2012</td>
<td>06/30/2017</td>
<td>NIH-NINDS</td>
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<td>Ransom, Christopher</td>
<td>GABA transporter type 1 (GAT1) function in epilepsy</td>
<td>01/01/2012</td>
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<tr>
<td>Hamid, Hamada</td>
<td>Psychogenic Nonepileptic Seizures in the VA Healthcare System</td>
<td>04/01/2012</td>
<td>03/30/2013</td>
<td>VA Locally Initiated Pilot Study</td>
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<tr>
<td>Delanerolle, Nihal</td>
<td>Magnetic Resonance Imaging and Spectroscopy of Neurologic and Psychiatric Disorder- Preventing Explosive Neurotrauma II</td>
<td>05/01/2011</td>
<td>12/30/2012</td>
<td>U.S. Department of Defense Office of Naval Research</td>
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<td>Hamid, Hamada</td>
<td>Neurocircuitry of Depression in Temporal Lobe Epilepsy</td>
<td>07/01/2012</td>
<td>06/30/2013</td>
<td>Epilepsy Foundation</td>
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<tr>
<td>Hamid, Hamada</td>
<td>Evaluating VA Subspecialty Traumatic Brain Injury Services</td>
<td>07/01/2012</td>
<td>06/30/2013</td>
<td>VA Locally Initiated Pilot Study</td>
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NATIONAL ADVISORY COMMITTEE

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

The meeting lasted from 4 to 9 PM.

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

2) The NAB met in closed session initially to review the written report and discuss accomplishments and any possible problems with the annual report. This was the first formal meeting of the NAB. The NAB also discussed its “mission” with regard to the new Epilepsy Centers of Excellence program established by the VA. The program was begun in 2008 and was funded for four years. The committee saw its role as helping evaluate the progress made by the ECoEs and helping to integrate the program on a national level. The NAB could help identify those areas most successful and encourage the adoption of these by all of the ECoEs. The NAB could also help identify problem areas in one or another of the ECoEs that could be remedied and could serve as important cautionary learning exercises for all the other groups. The NAB also felt it could serve in advocacy role for continued funding if the evaluation demonstrated significant value for the program to date.

3) There were no major issues raised by members of the NAB based on the distributed Annual Report. The NAB emphasized the issue of reaching veterans with epilepsy who were not traditionally served within the existing epilepsy centers for a variety of reasons who would potentially have significantly increased access to state-of-the-art epilepsy care. This involved multiple issues including access to the ECoEs from remote areas, the increasing use of TeleMedicine to reach outlying areas where veterans could not travel from conveniently, or at all, educational programs for specialists, general physicians, nurses, physician extenders, and other professionals, educational programs for veterans and their families using a variety of techniques (e.g. lectures, website information, video presentations, brochures, etc) and overcoming any traditional barriers to smooth referrals and patient transfers.

4) The NAB evaluated a series of verbal reports by chairs of multiple working groups established within the ECoEs. These covered all the major activities developed within the ECoEs since their inception in 2009. The NAB was very impressed at all the progress that had been made in each of these areas, especially given the usual “start up time” issues involved in a new national program and the need to integrated VA units from all over the country. Specifically, the leadership under Dr. Karen Parko and National Administrative Director, Ryan Reiger, as well as the Executive Committee, made up of one senior leader from each of the four regions, appeared to be functioning very well. This group had identified several major areas that required immediate attention and had established working groups to deal with each.

5) Integration from individual regional centers to a coherent national program had been accomplished.

6) Active educational programs for physicians, physician extenders, the veterans and their families had been established utilizing multiple modalities and were already reaching significant numbers of their intended recipients

7) Outreach programs to VA centers without specific epilepsy expertise were established and implemented.

8) Telemedicine was beginning to be utilized in very effective ways.

9) A very sophisticated epilepsy patient input template was developed and formally evaluated that will facilitate patient care and at the same time permit patient oriented research to be conducted to develop methods of enhancing care for veterans with epilepsy. This is a remarkable accomplishment as the field (in the private sector) has been trying to develop this kind of input template/database for many years without success.

10) Clinical research has already been initiated with several projects focusing on evaluating the care provided to veterans with epilepsy, both in the elderly population and in the veterans returning from the Gulf wars.

11) Integration with polytrauma centers is proceeding, although at perhaps a slightly slower pace than had been anticipated. This was noted and is being addressed.
12) The connection between traumatic brain injury, PTSD, and post-traumatic epilepsy is being explored and is likely to be an important area of medical advance pioneered by the VA and the ECoEs in the near future.

13) In summary, the ECoE National Advisory Board was very favorably impressed by the progress already being made in essentially one and one half years. No major problems were identified. The NAB did note that a lack of sufficient funds for the ECoEs likely interferes with their ability to carry out all that they are capable of with regard to integrating care for all veterans with epilepsy and for significantly improving access to specialized care, education, and research. It can already be demonstrated that veterans with epilepsy have easier access to specialized care and are receiving better care. Some internal VA administrative barriers with regard to smooth movement of veterans from outlying VAHs to the Epilepsy Centers will hopefully be reduced over the next year. Programs presented indicate that the ECoEs are on a trajectory to even more significantly improve access and care and hold the promise for important clinical advances in epilepsy treatment. Once the new epilepsy template and database are fully developed and implemented, they may become models for similar instruments throughout the private sector as well. At the end of the meeting the NAB congratulated the leaders of the ECoEs on their excellent accomplishments and outstanding progress to date and indicted strongly the need for continued funding of these centers beyond the initial four year congressional initiative.
The Advisory Board is composed of Epilepsy Provider Experts, Epilepsy Advocates and Veterans with Epilepsy. Purpose of the Board is to:
- Evaluate the job of the SW Regional ECoEs
- Educate Veterans about Epilepsy
- Share information/knowledge with non-Epilepsy Providers
- Advocate for the ECoEs

- Original funding for the ECoE Program runs out October 1, 2013.
- Executive Decision Memo (EDM) has been submitted to VA Central Office to request continued funding.
- Congressional letter from Representative Ed Perlmutter sent to Veterans Affairs Secretary, Eric Shinseki, asking VA to support the ECoE program.
- No confirmation of funding as yet.

- Reports from 5 SW ECoE Sites sent in advance to allow members time to review.
- Introduction of each SW Site Director.
Comment: San Antonio ECoE has not received ECoE funding. All activity and forward movement has been accomplished based on local resources. Request for San Antonio ECoE funding was included in the Executive Decision Memo.

Data collected nationally using stop code 345. EMU data self-reported (collected locally at each site).
- SW Region is the busiest Region in respect to Outpatient Clinics, Outpatient EEGs, Telephone Clinics, Tele-health and Surgeries.
FY12 Accomplishments:
- Epilepsy telemedicine is growing. It is now established at 4 out of 5 sites. Albuquerque leads the way in this endeavor and will soon cross State and VISN borders.

Question: How is the decision made regarding which patients are eligible for telemedicine?
Response: Distance from Veteran’s home to VA Hospital is a significant issue. Initial visits are usually done at the Hospital. If a Veteran lives closer to a Community- Based Outpatient Clinic (CBOC) then the follow-up visits are done there by Video-Telemedicine V-Tel). The choice is up to the Veteran. Another option is to follow the initial visit with a regular telephone call to discuss new medications and then use (V-Tel) for follow-up visits at the CBOC with caregivers if possible.

- Outreach to Polytrauma Level I and II Centers is ongoing. San Antonio (Level I) Research and EEG referrals. San Francisco referrals from Palo Alto (Level I) to EMU and Epilepsy Clinic. Houston (Level II) referrals to EMU and Epilepsy Clinic. West LA (Level II) referrals to Seizure Clinic.
- Resource Mapping completed for SW Region. In the SW Region there are 38 VA Hospitals in 11 States. Inquiry was made about availability of EMU, Epilepsy Clinics, Epilepsy Surgery, Neurologists and Epileptologists on staff, EEG labs, and MRI on site. The information obtained will be used to move forward with the Hub and Spokes model.
- EMU Hub and Spokes activity from October 2011 through August 2012 indicates the total number of unique patients monitored by San Francisco, Houston and West LA EMUs were 230. This includes 93 referrals from 26 VA sites in 14 States.
- Remote EEG reading is operational in Houston and West LA. San Francisco has initial framework set up. San Antonio in process of installation.
- Epilepsy surgeries (temporal lobectomies) done include 3 in Houston, 1 in San Francisco and 1 in West LA. Vagus Nerve Stimulation (VNS) done include 3 in Houston and 3 in West LA.
- SW ECoE Regional Directors held their annual V-Tel call in April 2012.
- Administrative Infrastructure: SW Regional AO position converted from rotating to permanent basis.

FY12 Outreach/Education:
- Continued educational lecture series for patients, caregivers, and providers.
- Continued support groups for epilepsy patients and caregivers.
- Multiple educational venues for residents, fellows and nurses.
- Clinical Neurophysiology and Clinical Polytrauma/Epilepsy Fellowships.

FY12 Research:
- Patients like ME (POEM study: Policy for Optimized Epilepsy Management) PI: John Hixson, MD. Pilot project conducted in San Francisco. Study team working to roll out nationally.
- Restructuring Epilepsy Care: Organizational Dynamics and Quality. PI: Mary Jo Pugh, PhD. Objective is to describe changes in quality of and access to epilepsy care before and after implementation of the ECoE initiative.
- Houston, San Francisco, San Antonio and West LA: Eighteen (18) active protocols dealing with seizures including Merit Reviews, VA HSR&D, Clinical Trials, NIH, DoD, EFA.

FY12 Publications:
- Total publications include 30+ relating to seizures. Of these, 7 deal with seizures in the Veteran population (including PNES).

FY12 Challenges and Barriers:
- Budget limitations, e.g. staff bonuses and raises
- Cost of patient travel and family lodging
- Funding for San Antonio ECoE
- Working with local site committees and resources to initiate V-Tel and remote EEG reading.
- Administrative infrastructure: Rotating Regional Director vs. permanent Regional Director. This issue will be discussed in a future Director’s conference call.
| FY13 SW Regional Goals / Initiatives | - Expand Epilepsy telemedicine to other States and VISNS.  
- Enhance relationships with Consortium members.  
  - Outreach to Regional Epileptologists and Neurologists.  
  - Monthly V-Tel Epilepsy conference calls.  
- Collaborate in PNES research and treatment efforts.  
- Enhance clinical and research relationships with Polytrauma Centers.  
- Establish remote EEG reading capability between ECoE sites.  
- Solidly establish the SW Region infrastructure.  
- Develop Quality Assessment of targeted group of VA Quality Indicators. |
| FY13 National Goals | - Complete Administrative Infrastructure  
  - All Regional AOs secured  
  - All Site AO's identified and participating  
- Website  
  - Show Impact (Develop criteria to show the impact of ECoEs on seizure Patients)  
  - Cost effectiveness  
  - Patient satisfaction  
  - Evaluate rural outreach  
- Consortium Development  
  - Hub and Spokes model defined within each Region  
  - Regional referral systems in place  
  - Utilization of Telehealth, e-Consult, and SCAN-ECHO  
  - Formalize ECoE caregiver support program  
- Institute of Medicine  
  - Become active partner and participate in implementation. |
| Hub and Spokes Model | Consortium:  
  - National launch for participants.  
  - Currently membership is 78 individuals in 48 States in 50 Medical Centers.  
V-Tel:  
Video-teleconferencing continues to expand. Goal is to reach out across state and VISN lines.  
SCAN-ECHO:  
- Provider to Provider Tele-Confencing. This program allows Epilepsy Specialists at the ECoE to electronically connect with Primary Care Providers and General Neurologists in rural or remote locations.  
- Will work towards getting this program funded, up and running in FY13. |
| Discussion/Comments | - Suggestion made to have educational video available for patients to explain how the different seizure medications work together and the impact on the patient.  
  - Question: Since the volume of surgeries done is low, there is a concern about the experience of the surgeons.  
  - Response: Each ECoE is associated with a University. All VA providers are on staff at the respective University as well as the VA. These combined positions ensure volume and experience.  
  - Question: Can patients participate in the SCAN-ECHO program?  
  - Response: No, this is Provider to Provider interaction. There are education audio conference calls scheduled during the year for patients. These are listed on the National Website.  
  - Question: How will information be distributed to Primary Care Physicians?  
  - Response: This will be part of the SCAN-ECHO program. The plan is to offer CEU credits for participation in selected conference calls. |
| Question: Are on-line Epilepsy diaries available? | Response: No, not at this time. However, the research study “Patients Like Me” will be launched shortly and uses the diary method. |
| -Comment: If continued funding is not secured for the ECoEs then the established ECoE sites will be left without financial support. Consider developing a business plan which incorporates the contribution of the ECoEs to the local economy and present to local sites. |
| -Comment: Local determination will differ depending on budget constraints. |
NORTHEAST REGION ADVISORY COMMITTEE

Epilepsy Center of Excellence Northeast Advisory Board
Royal Sonesta Harbor Court, Baltimore, MD
October 18, 2012; 5:30pm

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<tr>
<th>Advisory Board</th>
<th>ECoE Representatives</th>
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<td>Balish, Marshall</td>
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<td>Bever, Christopher</td>
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<td>Culpepper, Joel</td>
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<td>Dichter, Marc (guest)</td>
<td>Hopp, Jennifer</td>
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<td>Fishman, Paul</td>
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<td>Kingham, Lee Ann</td>
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<td>McGuire, Regina</td>
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<tr>
<td>Tang, Cha-Min</td>
<td>Towne, Alan</td>
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Recommendations of the Advisory Board

I. Role of advisory board is to help the VA and supply additional resources as partner and advocate, and to evaluate the programs.
   A. Local advisory boards’ recommendations should be shared with the national board.
   B. Meeting presentations did not clearly state objectives – ID important objectives and accomplishments and progress to date

II. ECoE Success so far
   A. Excellent work between Richmond ECoE and polytrauma
      i. Training others in seeing epilepsy patients?
   B. Impressed with strengths of the ECoEs
   C. Impressed with fast organization and cooperation

III. Concerns tied to renewal of funding
   A. Nationally –
      i. ID primary goals and objectives
      ii. Infrastructure is still a problem – commitment needed by local VAMC
   B. Coordinate awareness of national goals, how they relate locally, and how goals and objectives have been met
      i. Prove that ECoE is necessary
         a. Quality measures or cost?
            1. Difficult to show avoided costs of non-VA emergency care
            2. Patient satisfaction is “driver”
            3. Improved quality of life to transition away from care
            4. ID comorbidity (i.e., unemployment)
         b. Track epilepsy care in VA
            1. State of the Art Epilepsy care – progress of ECOE in care delivery
            2. How many have you “touched” and can give data for?
      ii. VACO wants to see how many veterans need surgery, have access to care
          a. New users or existing user no longer seeking care outside?
          b. Show a decrease in seizure related “accidents?”

IV. Development of metric to show cooperation and link with polytrauma
   A. Can be unique strength of Richmond
   B. Polytrauma link did not work out in all locations
   C. Emphasize unique strengths/successes of each location (see 5)
V. Integrate with Epilepsy Foundation and other patient advocacy groups to provide support
   A. Provide non-medical care/support for Veterans (i.e., education, counseling)
   B. Tap into social work in VA
   C. Maryland has excellent community groups VAMHCS can utilize
      i. Unique strength of Baltimore

VI. Involve VA’s HSR&D; try to have epilepsy listed as a VA priority, which carries special weight when people apply for grants
   A. Some data available for mining (who, what, how?)
   B. Begin to collect data set – priority areas: TBI and PD (Epilepsy only under TBI)
   C. Need pilot with preliminary data, team commitment

VII. What are next steps?
   A. SCI success tied to handbook/directive and patient advocacy
      i. Involve Epilepsy Foundation, Abilities Network, CURE, etc
      ii. More impact from patient group support than from what the ECOE can do (MS/PVA model)
   B. Ensure projects within ECOE add value and serve the same objectives
      i. What “products” can ECOE provide to ensure continued funding?
      ii. Need to develop multifaceted approach. Homework: show how VA works as a system of care
      iii. Improve efforts to get accurate workload and other credit
   C. Research – lack of funding/mandate
      i. Template – begin collecting standard data that would lead to a template later
      ii. Report to National Board at AES meeting; possible to spur increased research
      iii. Possible metric: how closely related to Polytrauma as demonstration project
      iv. HSR&D should be involved in creating metrics for Neurology
NORTHWEST REGION ADVISORY COMMITTEE

ECoE Advisory Committee Annual Review and Report

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

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

Clinical Care: The Puget Sound VA Healthcare System has implemented remote internet access to EEG data including live video/EEG of patients in the EMU. The EMU now has the capacity to monitor two patients instead of one.

Minneapolis has significantly upgraded their EMU equipment, and a remodel of the EMU has been accomplished at the Portland VAMC. Telemedicine is being implemented in all centers with particularly active use at Madison, Puget Sound, and Portland. Portland has developed a tele EEG program with the Boise VAMC, and more than 100 procedures have been projected for FY2012, saving time and money. Infrastructures for telemedicine seizure outpatient clinics have been established at the Portland VAMC, and the Madison VAMC has a telemedicine epilepsy clinic.

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

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

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

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

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

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

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

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

The major issue over which the centers have little control is the long term funding of the ECoEs on a national level.

Funding is set to expire on September 30, 2013. This uncertainty results in some instability and hampers secure future planning.

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

1. Document the effectiveness of the ECoE by rigorous tracking of referrals by source, documenting attendance at educational programs. We note that while there is some tracking of referrals on a national level comparing ECoEs with non ECoE centers, it is not clear what is being done specifically at the Northwest ECoEs.
2. Include a veteran representative on the advisory board. A veteran is now on the advisory board.
3. Take advantage of the common data base being developed. While some good progress has been made in leveraging the power of the common database to secure funding outside of the VA, more collaborative research among the centers is encouraged. The psychogenic nonepileptic seizure study led by Dr. Salinsky and the Traumatic Brain Injury Study being developed nationally is recognized. More collaborative studies such as these are encouraged.
4. Expand telemedicine usage. The committee is encouraged by the progress in implementing telemedicine despite staffing and funding problems.
5. Address cost effectiveness. While the cost effectiveness of the diagnosis of epilepsy in the VA population is being studied on a national level, the committee encourages active participation of the northwest ECoE.
6. Consider a short evaluation form for referring doctors. The committee would like to have more specific information on the progress of the survey of referring doctors.
7. Consider following up with patients to characterize outcomes. We understand that this is being pursued at a national level, but we are uncertain what role the Northwest ECoEs are playing.
8. Coordinate patient care within the region. The committee is pleased with the progress in this area, particularly with telemedicine and in the research arena.
9. Determine rules and regulations regarding virtual consultation and credentialing processes. The committee is pleased that teleconsultation is being implemented in some centers.
10. Consider implementing telemedicine within 6 months at Portland. The committee is pleased with the progress of implementing telemedicine and tele EEGs.
11. Determine diagnostic related expenses the year before and the year after monitoring. As with items number 5, 6, and 7, the committee is not clear what efforts are being made in the NW ECoE in this area.

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

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

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

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Brent Herrmann
President/CEO Epilepsy Foundation Northwest

Bruce Hermann
Professor of Neurology, University of Wisconsin-Madison

Vickie Kopplin
Executive Director Epilepsy Foundation Minnesota
SOUTHEAST REGION ADVISORY COMMITTEE
Southeast Epilepsy Centers of Excellence Annual Strategic Planning Meeting.
Durham VAMC – Directors Conference Room 1st Floor
April 11-12, 2013

Purpose:
- Opportunity for the SE ECoE leadership team to outline accomplishable goals and objectives for FY13 & FY14 aligned with the Public Law and within budgetary constraints.
- Allow for grass root communications with regional epileptologists to determine what SE ECoE efforts have worked well and identify improvement opportunities for Veterans’ access to sub specialty neurology care and maximizing available resources.
- Review current and future collaboration opportunities with community and national organizations to maximize resources for epilepsy care and education.

Day 1 Goals:
- Devise a plan to utilize maximally current resources and updates on current projects
- Devise a plan to adopt current successes in the VA community resources to strengthen the current referral patterns and expand outreach of the ECOE within the region.

Day 2 Goals:
- Finalize contents for epilepsy guidebook for general neurologists and pocket guidance for primary care providers.
- Determine content for statement of work for editing and publishing of guidebook and pocket guidance
- Review current surveillance project for validation of algorithm for the identification of epilepsy patients.

How did the Meeting Support VA Strategic Goals and/or Benefit Veterans?
- T-21 – Drafted/revised plan to improve/expand the leveraging of technology in pursuit of public law and Integrated neurology pilot expectations.
- Access – Drafted action plans to increase telehealth clinics and leverage technology to provide more remote options for testing, expand consultation options, strengthen administrative nucleus to support referral paradigm, and to tap into community resources for assistance specifically as it relates to education.
- Implementation of new or improving existing programs & Policy making – Completed plan for the surveillance project to validate algorithm for identification of epilepsy patients. Accurate identification of population for evaluation of the program will be critical for future policies and decision-making for centers of excellence.
- Education – Finalized content for guidebook and quick reference series & devise plan and outline for annual symposium.

Meeting Results / Achievements
- Goals for FY13 & FY14 drafted with a supportive and aligned action plan. See attached minutes.
- Designed surveillance activity to validate algorithm and report results by 1st QTR FY14.
- Designed training plan for in preparation for the release of template/database prior to the 4th QTR FY13.
- Outlined objectives and expectations for referral paradigm to include administrative infrastructure to improve referral process for epilepsy and neurology sub-specialty throughout SE Region, VISN5/6 with additional T21 funding for Integrated Neurology Pilot by the 4th QTR FY14.
- Drafted a SE-ECoE planned rotation schedule for annual education co-sponsored symposiums with the next symposium set for 2nd QTR FY14.
- Collaboration with Epilepsy Foundation representatives to outline future collaborative activities to support SE ECoE co-sponsored education material and additional meetings.
- Finalized content for epilepsy guidebook for VA neurologists and proposed author list for chapters based on submissions received.
- Completed budgetary plan to obligate all FY 13 funds prior to end of 4th QTR FY13.

How did the Face-to-Face Format Contribute to Meeting Results/Achievements?
- The face-to-face meeting format was a key contributing factor to the ability to accomplish a tremendous amount of work in a short-time frame allotted for the aggressive agenda. Having a diverse group of major stakeholders converge for a dedicated amount of time at a centralized location restricted interruptions, allowed for breakout sessions for focused reviews and discussions, and allowed for real-time feedback, discussions, adjustments and follow-up which would not have been possible within an electronic environment.
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 chapter 73 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 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.”