Jan 16
Concussion: What We Know Now and Why It Changes Things
(W-011613Concussion)

About Dr Kent:
Janet Kent, MD, is a native of Buffalo, NY. She graduated from Boston College and the University of Buffalo School of Medicine. Dr. Kent is board certified in Physical Medicine and Rehabilitation. Before moving to the Boston area in 2002, she was an attending physician at a level one trauma center in Buffalo, caring for patients with mild to severe traumatic brain injuries. Dr. Kent is currently on staff at South Shore Hospital in Weymouth, MA where she is Medical Director of the Sports Concussion Program. She is on the Massachusetts Medical Society Committee for sports medicine and student health. Dr. Kent is the mother of two sons, ages 19 and 15 years old. The oldest has had two concussions and they both play contact sports.

About the presentation:
Concussion research is rapidly evolving – it’s not 1990 anymore. This webinar will provide a review of current concepts in sports concussion pathophysiology, assessment, management, and prevention as well as provide advice for parents, athletes, coaches and anyone involved in youth or interscholastic sports.

Feb 20th
The Effect of Dialysis on EEG by Petra Davidson, BS, R. EEG T.
(W-022013DialysisEEG)

About Petra:
After graduation from college, Petra began as an EEG tech trainee in 1999. She began her training by reading Niedermeyer's "Electroencephalography", which sparked increasing interest in the brain and how it worked. She recalls when she was first inducted into the “call of fame” being so proud to carry that pager around, excited to be instrumental in assisting neurologists in neurodiagnostics. She
joined ASET 12 years ago, to expand her knowledge and skills and began work in LTM. Later adding vestibular evaluations to her skill set, followed by evoked potentials and IONM. She was published in the ASET journal in 2007 and recently delivered a platform presentation at the ASET annual conference in St. Paul, MN. Her current interest is in education and she truly loves the process of teaching others, and learning from them, as their questions open doors to new challenges. She recently proposed a formal research project at Mayo Clinic Health system, her employer and looks forward to the challenges of working with a team of physicians, administrators and statisticians, and financial experts, searching for ways to improve processes so that patients may gain answers more rapidly and accurately.

About the presentation:
EEG technologists have very different opinions on when an EEG can be performed if a patient is on dialysis. Some EEG technologists will do an EEG during dialysis and are unaware of the photic sensitivity and bitemporal spikes that occur on the EEG. Other technologists will hold off on performing an EEG until 24 hours after dialysis has stopped because of possible changes that might occur. Who is right?

Literature from formal research studies provides little evidence either way. In an era of evidenced based medicine, it is no longer good enough to use hand me down rules. Formal research must specifically address this topic. Currently, I am leading a research project on this topic.

Just as no man is an island, the brain is not an island within the body. The brain heavily relies upon proper functioning of the other organs within the body to maintain a healthy level of homeostasis. The homeostasis of minerals, hormones, chemicals, vitamins, fluids and blood must be maintained to prevent encephalopathic and epileptogenic conditions.

To be a true technologist, an educated, scientific person who uses knowledge and the scientific method to solve problems, we must understand how other systems affect the brain and our EEG.

Goals:
Define the functions of the kidneys
Define the complications of kidney failure
Explain the correlation between brain function and kidney failure
Explain the dialysis process, dialysate, and its limitations
Summarize literature on changes in EEG during dialysis
Provide an update on the research project
Mar 20th
Practical Study and Test Taking Strategies by Jason Alster, MSc, RPSGT
(W-032013StudyBoardExams)

About Jason:
Jason has a BA in Psychological Biology from Yeshiva University, NY and attended the EEG School Columbia Presbyterian Medical Center and attained a MSc Technion Institute of Technology, Haifa, Israel. He has worked in Neurodiagnostics and sleep wake disorders technology and research since 1978. In addition he has worked as a biofeedback therapist including EEG biofeedback since 1991. This brought him in contact with learning challenges especially in ADHD, Dyslexia and Test Anxiety, where he then added tutoring to compliment of skills. An art instructor working with creativity concepts and visual learning, he is also an author. Jason received the Mary Carskadon Award for excellence in Sleep research comparing the EEG of sleep to coma, circadian rhythms, and their prognostic abilities. He also authored the well received self help movies "Being In Control; Natural Solutions for ADHD, Dyslexia, and Test Anxiety, The Zen of ADD, ADHD, as well as " Anyone Can Improve Their Own Handwriting" and the book "Creative Painting for the Young Artist".

About the presentation:
The fun webinar will cover accelerated learning and test taking strategies; organization of materials, time management, memory techniques for difficult material, speed reading concepts, and brief seated relaxed concentration exercises to increase focus and reduce study and test taking stress.

April 17th
(W-041713HippoTransect)
Multiple Hippocampal Transections for Temporal Lobe Epilepsy by Sherry Nehamkin, R. EEG/EP T, FASET, CNIM, CLTM

About the presentation:
• Multiple Hippocampal Transections
• Decreasing seizure burden while preserving memory function.
• Research results and case presentations. Where are they now?

The goal in this study was to assess the role of longitudinal hippocampal circuits in the generation of interictal and ictal activity in mesial temporal lobe epilepsy (MTLE) and to evaluate the effects of multiple hippocampal transections (MHT).
Thirteen patients with nonlesional MTLE had depth electrode recordings confirming hippocampal seizure onset and underwent MHT. Antiepileptic drugs were not changed postoperatively. Intraoperative monitoring was done with 5-6 hippocampal electrodes spaced at around 1 cm intervals, and spike counting for approximately 10 minutes before each cut.

Conclusions:

1). Hippocampal spikes are consistently synchronized in the whole hippocampal structures.
2). One or two transections between the head and body of the hippocampal formation are sufficient to abolish hippocampal spikes that are synchronized along the anterior-posterior axis of the hippocampus.
3). Treatment with MHT leads to seizure freedom in many patients with hippocampal /parahippocampal epilepsy.

About Sherry: Having always worked in allied health, initially in respiratory therapy, then cardiology, and vestibular testing, in 1988 she entered the most amazing field of all, neurodiagnostics. Her ultimate goal to maintain, and ultimately improve, the quality of life for patients has been met time and time again first as an EEG Technologist, having been shown the importance of quality routine EEG studies, as a diagnostic tool, and later progressing to evoked potentials, Phase I Long Term Monitoring, Phase II Monitoring, performing functional mapping from subdural and depth electrodes, then Neurophysiologic Intraoperative monitoring (IONM) including, BAEP’s, Cortical Mapping, ECOG, EEG, EMG, Microelectrode Recording for DBS, SSEP’s, TcMEP’s, VEP’s, in both the operating room and angiography suite, and she had the opportunity to be involved with research that has many times transitioned into standard of care. She has now entered a newly defined role as EEG Reader, where under the supervision of the staff physician, she monitors real time EEG and video for ICU, adult and pediatric epilepsy monitoring unit patients, helping to evaluate, record, and report EEG, EKG, and related safety concerns. She is excited to share her education and experience in this field. Which she thinks, couldn’t be more cool.
May 15th
(W-051513MapCortexGenAnesth)

About the presenters:
James has been in the field of neurodiagnostics for nearly 15 years and has experience in clinical EEG, evoked potential testing and intraoperative monitoring. During his career, he has served as one of the primary educators for a national intraoperative monitoring company, implemented a multi-hospital IONM program, and most recently is the IONM program director/co-owner of Larry Head Institute. Additionally, he currently serves on the ASNM Board of Directors, is a past member of the MSET Board of Directors, and volunteers with FOCOS (Foundation of Orthopedics and Complex Spine) monitoring complex spine procedures and training nationals in Ghana to perform IONM.

Kent has been working in the field of IONM for 20 years after completing a Master’s degree in Bioengineering from the University of Michigan. As Director of Education and Training for Biotronic NeuroNetwork he has developed a formalized training program in IONM that has matriculated over 400 technologists as well as a number of physicians. Kent has also served on the boards of ASNM and ABNM.

About the presentation:
James and Kent will present a new language mapping technique in which Broca’s area is mapped under general anesthesia using long-latency compound muscle action potential recordings from the laryngeal muscles. Additionally, they will discuss their findings using this previously reported (Deletis et al., 2008 and Deletis et al., 2009) technique in four patients that were not candidates for standard awake Broca’s mapping. Using this technique the primary motor cortex and Broca’s area are mapped using high frequency, short-pulse train direct cortical anodal stimulation (Taniguchi, 1993) following phase reversal mapping of the central sulcus. Short and long-latency compound muscle action potentials are recorded using an endotracheal tube with
embedded bipolar recording electrodes contacting the vocal folds and hookwire electrodes placed in the vocalis muscles. Based on their findings this technique appears to be an effective method for mapping Broca’s area in patients that are not candidates for awake language mapping.

**Break for summer**

**Sept 25**  
*Safety Considerations and Quality Management in the Epilepsy Monitoring Unit by Susan Agostini, R. EEG/EP T, CLTM*  
(W-092513SafetyQMLTM)

**About Susan:**  
Susan Agostini graduated from the Saint Joseph’s Hospital - School of Electroneurodiagnostic Technology in 1991. She is registered by the American Board of Registration of Electroencephalographic and Evoked Potential Technologists (ABRET) in EEG, EP And LTM.

She is currently the Supervisor of the Epilepsy Monitoring Unit at banner Good Samaritan Medical Center in Phoenix, AZ.

Mrs. Agostini has always had a special interest in Epilepsy. She is currently a member of the Board of Directors of the Epilepsy Foundation of Arizona. She is also adjunct faculty for the Electroneurodiagnostics Technology program at Gateway Community College. Her passion of the field of Neurodiagnostic Technology is the driving force behind her advocacy for the epilepsy patients, and their safety.

**About the presentation:**  
Safety is paramount in patients admitted to the Epilepsy Monitoring Unit (EMU). This webinar will highlight key elements needed in developing safety practices, and quality monitors that promote an environment of accountability and ownership while also fostering a collaborative, patient centered, and engaged multidisciplinary EMU team. By sharing best practices and process improvements within the healthcare community, we are contributing to a safer environment in the EMU, high standards in patient care and ultimately better patient outcomes!
Techniques and Case Reviews from Skull Base Surgery: Cranial Nerve Monitoring and Beyond by Jeff Balzer, PhD, DABNM (1.5 hrs)

(W-101613TechCasesSkullBaseCN)

About Jeff: He is an Associate Professor of Neurological Surgery and Neuroscience, Director of the Cerebral Blood Flow Laboratory and Associate Director of Clinical Services, Center for Clinical Neurophysiology at the University of Pittsburgh Medical Center. He is a member of ASET and past President of the American Board of Neurophysiologic Monitoring and the current Secretary/Treasurer of the American Board of Neurophysiologic Monitoring.

About the presentation:
This webinar will cover techniques, new and old, for monitoring cranial nerve function during skull base procedures. This will include detailed “how to” demonstrations of electrode placement and recording parameters. In addition to the technical aspects of the lecture, the webinar will discuss specific cases and outcomes data recently published reviewing the utility of cranial nerve monitoring during these complex procedures.

Nov 20
How Do Hospitals Decide to Develop or Outsource IONM Services by Denise Bates, R. EP T., CNIM, MBA/HCM
(W-112013DevOutsourceIONM)

About Denise: Denise Bates has been in the field of Neurodiagnostics for 18 years, the past 16 years have been dedicated to IOM with emphasis on teaching, continuing education, sales, and marketing. She has been employed at Neuromonitoring Technologies, Inc. for the past 13 years and currently holds the position of Director of Clinical Education. Prior to the private sector, she spent her time at the University of Maryland Medical Center performing IOM. Denise has been faculty at the Institute of Health Science for 3 years and teaches several courses in the END and IOM programs. She teaches the Fundamentals of Evoked Potentials course online for ASET and has presented at ASET Annual Conferences in 2012 and is faculty for the ASET Annual conference in 2013. Denise started out
in the field with an Associate of Applied Sciences in Electroneurodiagnostic Technology then moved forward to complete an Associates of Science in Teacher/Health Education, Bachelors Degree in Health Care Services, Masters of Business Administration with specialization in healthcare management, and is now completing the Doctor of Health Administration degree.

About the presentation: The subject of her doctoral dissertation, Denise will share her research into the factors that contribute to the decision to develop an IONM department and team within the hospital to perform IONM services and the factors that contribute to the possible choice to outsource these services with an IONM company or contracted IONM services.

We will break for the holidays and begin with a new line up of ASET webinars for 2014 in Jan.