

## **Director, Epilepsy Surgery Program**

### **Summary**

The Director of the Epilepsy Surgery Program will ensure that the Program achieves high-quality outcomes, provides innovative clinical care and clinical research, and evolves to meet the needs of patients, the department, the hospital, and the community.

The Director works collaboratively with the Epilepsy Division Director, Director of the Epilepsy Monitoring Unit, Epilepsy Neurosurgery, Director of Neurology Nursing, and the EEG Laboratory Manager to perform the tasks listed below.

### **Qualifications/Requirements**

- Completion of an epilepsy fellowship with specific training in epilepsy surgery, including intracranial monitoring or equivalent experience. 2 year fellowship preferred.
- Board Certification in Neurology
- Board Certification in Epilepsy and/or Clinical Neurophysiology
- Strong communication, interpersonal, and presentation skills
- Excellent managerial and organizational skills

### **Clinical and Service Operations**

- Develop, maintain, update, and implement policies, procedures, and protocols for epilepsy surgery (details below).
- Monitor quality, safety, and service of care provided.
- Provide input to division plans and requirements for program growth, including written report at least annually on program volume, successes, and development needs.
- Participate in recruitment, training, ongoing education, and performance assessment of staff involved in the epilepsy surgery program.

### **Process and Quality Improvement**

- Track program volume, program flow, clinical outcomes, and patient experience.
- Develop and maintain epilepsy surgery outcomes database.
- Develop and implement initiatives for process and quality improvement activities.
- Report program data to the Epilepsy Learning Healthcare System (ELHS).
- Participate actively in the ELHS Epilepsy Surgery Workgroup.

### **Regulatory**

- Assure adherence to National Association of Epilepsy Centers accreditation criteria for epilepsy surgery.

### **Liaison Relationships**

- Participate as a team member on the multidisciplinary teams that provide oversight to the program.

- Promote effective communication among departments participating in the Epilepsy Surgery group (Neurology, Neurosurgery, Neuroradiology, Neuropsychology).
- Participate in departmental and hospital committees as appropriate (e.g. quality improvement, risk management, utilization review, etc.).
- Work with EMU Program Coordinator on outreach to community neurologists.
- Promote an environment of trust, professionalism, and collaboration within multidisciplinary surgical team.

### **Education**

- Provide medical education and training for EEG technologists, fellows, and faculty for continuous learning opportunities.
- Participate in development of educational materials for patients and families.

### **Scientific Activities**

- Identify opportunities for clinical research in epilepsy surgery.
- Assist in training and supervision of clinical research staff.
- Provide operational and ethical oversight of epilepsy surgery research.
- Participate in national committees and research consortia on epilepsy surgery.
- Collaborate on clinical research projects with Barrow at Phoenix Children's Hospital.

### **Protocols and Clinical Pathways**

- Protocols and pathways will be presented to the Epilepsy Division to reach consensus. Once agreed upon, the Director of Epilepsy Surgery will monitor ongoing adherence to these protocols and pathways.

Establish standardized protocols, reporting guidelines, and clinical pathways for:

- Presurgical evaluation diagnostic testing, stratified by likely ictal onset zone
- Epilepsy surgery case conference presentations and reports
- Types and presentation of multi-modality imaging (ESI for EEG and HD EEG, PET, MEG, MRI, MRS, fMRI)
- Epilepsy surgery outcomes database, including neurostimulation and LITT
- Wada testing
- Intraoperative electrocorticography and mapping for epilepsy surgery
- Intracranial video-EEG monitoring
- Stereo-EEG planning and analysis
- Extra-operative functional mapping of eloquent cortex
- EEG source analysis and imaging co-registration, standard and high-density EEG
- Early post-op assessment (concordance with pre-op plan, complications, and 3-month outcomes) and annual outcomes

### **Surgery Coordination and Oversight**

- Hold regular documented meetings (at least monthly) with key Epilepsy Surgery personnel.
- Lead the weekly Epilepsy Surgery Case Conference and ad hoc Surgery Planning Conferences.
- Review case conference summaries with fellows and prepare / supervise and present multimodal imaging data at conferences.
- Review / approve final case conference reports. Assure all relevant information is communicated to Neurosurgery Team.
- Coordinate and supervise all phase 2 monitoring, surgeries requiring intraoperative monitoring, and placement of targeted neurostimulation devices.