

# Epilepsy surgery in the Philippines

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## Abstract

One of the milestones in the management of epilepsy in the Philippines is the formation of the Philippine League Against Epilepsy in 1996. A number of projects have been implemented to improve the public awareness and care of patients with epilepsy. The comprehensive epilepsy program was established in 1997, mainly based at the St. Luke Medical Center, Manila. This program is comprised of a multidisciplinary team with facilities inclusive of video-EEG, MRI, PET and intraoperative ECOG. Video-EEG monitoring is also available in two other hospitals. Public reluctance, high costs, and sociocultural factors are some of the reasons for underutilization of the surgical option for epilepsy treatment in Philippines.

Epilepsy continues to be one of the leading causes of neurological consultations and admissions in the Philippines. With a population of 83 million and an estimated prevalence of 0.9%, there is an estimated 750,000 people with epilepsy in the country, majority in the productive years of their life. Based on estimates in the literature, about 25% would be intractable to current medical therapy.

One of the milestones in the management of epilepsy in the Philippines is the formation of the Philippine League Against Epilepsy, an organization committed to the improvement of the quality of life of persons with epilepsy through education, research, prevention, advocacy and delivery of optimal health care. This organization was formally established in 1996, and became officially a chapter of the International League Against Epilepsy in June, 1999. The other major organization involved in the field of epilepsy is the Epilepsy Council of the Philippine Neurological Association, which is mainly involved in education and formulation of policy in epilepsy related fields.

Some of the projects undertaken and implemented by the Philippine League Against Epilepsy are as follows:

*National Epilepsy Awareness Week:* By a presidential proclamation from President Gloria Macapagal-Arroyo on August 12, 2002, the first week of September of every year was declared the National Epilepsy Awareness Week. During

this week, epilepsy related activities are scheduled like epilepsy lay forum, poster contests, sports competitions, free clinics and other educational activities.

*Friends of PLAE (Philippine League Against Epilepsy):* A lay support group organized by the Philippine League Against Epilepsy for persons with epilepsy and their families. It was first organized in April, 2002.

*BRIDGES program - Bridging Referrals to Improve Delivery of Grassroots Epilepsy Services:* The main objective of this program is to establish an efficient referral system for epilepsy care services at the primary, secondary, and tertiary levels within the context of the existing national health care system. This is done by making linkages between the primary care physician and identified epilepsy referral consultants who will then help decided the next step in the management of the referred patient.

*Epilepsy Manager Program:* The mission of the program is to make available to the Filipino people within a radius of one hour bus ride or less from their homes, a doctor who is competent in managing persons with epilepsy at the primary care level.

*Epilepsy Exemplar Award:* It is a contest open to all Filipino citizens between the age of 8-65 years of age who has been diagnosed to have epilepsy,

and who possesses a pleasant personality and good oral communication skills. The awardees must be willing to act as a spokesperson and role model for patients with epilepsy.

## DEVELOPMENT OF EPILEPSY SURGERY SERVICES

With the continued return of people trained in epileptology, and in epilepsy surgery from overseas, the next major development was the formation of a comprehensive epilepsy program. This was established in 1997 and was mainly based at the St. Luke's Medical Center. The Center is one of the premier private hospitals in the country with the resources to support the requirements of the program. It is comprised of a multidisciplinary team composing of the following members: Epileptologists, an epilepsy surgeon, neuropsychologist, psychiatrist, nurses, EEG technicians and dieticians. The objectives of the program are to evaluate patients for their suitability for epilepsy surgery, and to offer an overall better management and control of seizures in patients with drug resistant epilepsy. This is achieved by a more accurate diagnosis of the patients, including the exclusion of the diagnosis of pseudoseizures. This helps to better tailor the medication regimens. The program also offers the following services:

*Phase I evaluation:* CT scan, MRI, PET scan, video-EEG, WADA or intracarotid amylobarbitone testing, neuropsychological evaluation. Current limitation to the program of doing more WADA testing is the difficulty in obtaining amobarbital.

*Phase II evaluation:* Intracranial electrode placement and extraoperative monitoring.

*Epilepsy surgery:* This includes intraoperative ECOG and mapping. Most of the surgeries done are for lesional epilepsy; that is, tumors, vascular malformations, and hippocampal sclerosis, and majority are temporal as well.

*Ketogenic diet:* About 2-5 patients per year have been placed on the ketogenic diet, all in the pediatric age group.

The Epilepsy Monitoring Unit at the St. Luke's Medical Center is a 3 bed unit offering 2 hours and prolonged video-EEG monitoring. In addition, there are 3 other one bed units in other

hospitals with in house epileptologists trained in video-EEG monitoring, namely the University of the Philippines-Philippine General Hospital, the Philippine Children's Medical Center, and the Makati Medical Center. WADA testing is being done only at St. Luke's Medical Center. Epilepsy clinics are established in two training hospitals, the University of the Philippines-Philippine General Hospital and the University of the East-Ramon Magsaysay Medical Center.

Despite having these physical resources and personnel in place, the option of surgery in the management of intractable epilepsy has not yet been maximized, which is quite frustrating for the personnel involved in the program. Some of the factors identified are as follows:

*Reluctance to undergo cranial surgery:* The public is reluctant to undergo cranial surgery for a condition not considered immediately life threatening by the patient and his family. This is related to the perception by the lay public that cranial surgery is oftentimes morbid, and an extreme intervention.

*Sociocultural factors:* There is usually strong familial support for the dependent member with epilepsy, thereby obviating the need for independence and self support. Also public transport services is so prevalent and convenient in most parts of the country that the need to drive to get from one place to another is not as pressing as in other countries like the United States.

*High costs of evaluations and surgery:* The cost in evaluation and surgery is a big burden on an average Filipino income. However, successful surgery should lead to future family savings and income, with decrease or cessation of antiepileptic drugs as well as improved employability of the patients.

*Preference for drug, herbal treatment and spiritual healings:* The reluctance to undergo surgery comes hand in hand with the preference to exhaust all available antiepileptic drugs in the market, as well as trying alternative options like herbal medications and concoctions. Patients and their families also try prayer healing sessions in an attempt to control their disease.

The further development of epilepsy surgery services in Philippines requires the need to continue public awareness programs to the lay

public, as well as the primary physicians who first see and manage these patients. The aim is that surgical intervention will be regarded as part of the armamentarium in the treatment of intractable epilepsy. We hope that with patience and continuing education, the time will come when surgery as an option in the management of intractable epilepsy will no longer be considered a novelty but the norm.