

Screening, Education, and Measurement are the Keys to Successful Epilepsy Management

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South Florida is recognized around the world for many things – beautiful beaches, tropical climate, our diverse community, and much more. Did you know, however, that our region is also known for having the highest population of people who experience seizures on an annual basis? According to the Epilepsy Foundation, between 100,000 and 120,000 people in South Florida experience seizures annually. This is double the national average.

It should come then as no surprise that patient volume in the new epilepsy monitoring unit (EMU) at Holy Cross Hospital, which opened in January 2008, has surpassed our initial expectations. Our projections for the year were met within the first five months. Designed and operated in conjunction with Florida Neuroscience Center, Holy Cross now houses the region's most sophisticated technology for diagnosing seizures. The unit includes four newly designed and renovated private rooms, a technician monitoring room, and a mobile monitoring unit that we use to triage complicated seizure cases in the intensive care unit and emergency room.

Serving an Important Purpose

Proper screening, monitoring, and diagnosis of seizures are critical. While seizures are a symptom of epilepsy, they may be due to other conditions as well, such as psychological illness or hormonal issues. To make the best diagnosis, a patient needs to be evaluated in the EMU where we have the ability to monitor their specific brain wave activity over several days to locate the origin of the seizure. Depending on the portion of the brain where the abnormality is located, we can determine whether a patient has epilepsy or if their seizures are caused by something else.

Close to 60 out of 100 people who experience seizures, and are said to have epilepsy with no response to medications, do not really have epilepsy. Conversely, since seizures can present in subtle ways, many people with unusual symptoms are unaware that they have epilepsy.

Our goal is to evaluate the patient during a seizure episode from within the brain and through physical movements and behavior. Sometimes, we can induce a seizure if it is known what type of stimulus causes it – for example, exposing the patient to light, music or loud noises. Brain waves during or between seizures may show special patterns, which help us, decide whether or not someone has epilepsy.

Upon diagnosis, our team works closely with the patient and other physicians to develop a specific treatment plan to achieve optimal results.

Managing and Screening

As with many chronic diseases, epilepsy is challenging to manage from both patient and physician perspectives. The mystery of when and why seizures take place,

combined with possible medication side effects and lifestyle impact, can take its toll. We have found in our practice that managing complicated seizure cases has been successful in large part due to the utilization of new technologies, continuing education for patients, patient screening, and outcome data measurement.

We believe that successful chronic disease management needs to focus on the whole patient. It is our responsibility as physicians to look outside of the box to provide our patients with the most comprehensive treatment plan available. Physicians need to work together to understand and manage complexities of particular patient issues.

Through the use of questionnaires and measurement tools, we can now evaluate a patient's quality of life, possible side effects to medications, depression, mortality risk, generalized overall health status, bone density, and any changes or impact to exercise, diet, or sleep. For example, the Food and Drug Administration recently issued a statement warning that certain antiepileptic drugs may lead to suicidal behavior. We ask our patients six or seven questions that help us measure their risk of suicide.

Education

Epilepsy, like many other chronic diseases, is complicated to diagnose and to manage. Patients need and want to learn about details that affect their daily living such as nutrition, medication, pregnancy, driving, and first aid after a seizure. By providing resources and educational materials in the form of brochures, Web sites, blogs, videos, and lectures, for example, patients feel more comfortable and well versed in what to expect and how to manage their illness.

Outcome Data Measurement

In both a private- and hospital-based practice, we have the ability to measure processes and outcome data to evaluate how we are running our practice, interacting with our patients, and how we are improving the overall quality of life of our patients.

We can also measure data such as call volume and length of wait time for patient appointments. In addition, we also value how our staff is treating our patients.

Outcome measurement helps us to better understand our clinical successes and shortcomings and continue to improve our processes and procedures to create a better system in the service of patients.

This type of practice standard – patient education, screening, and outcome data measurement – can be translated to the management of many other chronic diseases. By taking all of the pieces of the puzzle into account, the patient and the practice will ultimately come out ahead.