



# He Didn't Just Visit Honduras. This Chicago Neurologist Opened a Neurology Clinic There.

**ARTICLE IN BRIEF:** A Chicago-based neurologist established and expanded the neurology services available through a local medical clinic in Honduras. He discusses the challenges of caring for patients in an area with limited resources but, he says, opening the clinic has been well worth the effort.

DAWN FALLIK

It was 6 pm and Larry Robbins, MD, was closing up his neurology clinic in Honduras, located about 90 minutes from Tegucigalpa, the country's capital.

Suddenly a woman stumbled in. She had taken three buses to get to the clinic, requiring hours of travel. On the last bus she had experienced a tonic-clonic seizure.

The woman lived on a small farm with her three children, and she'd been having 10 seizures a month. The phenytoin wasn't working, Dr. Robbins said, so he switched her to levetiracetam. When he Skyped with her two months later after her visit she'd only had a couple of seizures.

"She said she would bring me a live turkey on my next visit. So the next visit, she showed up again [after taking three buses], with a big bag," Dr. Robbins said. "I was petrified it was a turkey. Luckily it was some homegrown fruit."

## Expanding Available Neurology Services

Dr. Robbins, 64, started his clinic in 2017, nearly 33 years after he opened his own private headache clinic outside of Chicago. He'd been drawn to neurology in medical school in the same way he was drawn to the game of bridge: He liked finding patterns, seeing how they connected.

Dr. Robbins had been volunteering with the Julian Grace Foundation, which funded the Clinica Santa Rosa de Lima, a medical clinic located next to an orphanage.

"I'd read that it was somewhat dangerous, and it is, just like any big city if you go in the wrong area," Dr. Robbins said. "What surprised me are the people. They are very poor, but very resilient and family-oriented."

After volunteering for a year, Dr. Robbins suggested the foundation open a neurology clinic as part of its larger medical offerings, which included a small pharmacy, five general doctors, and a small emergency department. There was a need for neurologic care, Dr. Robbins said, particularly due to the high number of cases of brain damage caused during delayed cesarean sections, something the clinic does not have the capacity to perform.

Opening the clinic, which is housed within the larger Santa Rosa de Lima building, cost about \$50,000. The money came from Dr. Robbins' own nonprofit, the American Headache Association, as well as from the Julian Grace Foundation, private donations, and Dr. Robbins' own personal funds, he said.

This year costs will be about \$30,000, which include paying for the local nurse administrator who follows up with patients and organizes their charts, and the local neurologist who visits once a week. Both the administrator and the doctor speak English as well as Spanish; Dr.

Robbins also pays for a translator when he visits for a week every three months.

## Outreach to the Community

When he first opened his clinic, Dr. Robbins worked with the nurse administrator to make local communities aware that neurology services were available, and free.

"She called every medical service within 200 miles and let them know," Dr. Robbins said. "We also took out some radio ads to reach people."

The clinic sees about 17 patients per day when it's open. Between visits Dr. Robbins checks up on patients by Skype and phone.

He did find it a bit of a challenge to return to general neurology after specializing in headache treatments for so long, but Dr. Robbins said his medical training all comes back to him when it's needed. And he gets to spend more time with patients, time formerly spent on privacy regulations, insurance issues, or electronic records.

The doctor's journal entries from his time in the clinic show cases that aren't strictly neurological. Patients included a 12-year-old whom Dr. Robbins assessed as having learning disabilities and attention-deficit hyperactivity disorder; a 21-year-old who was bipolar with mania who was not taking his medication; and a 44-year-old woman with severe insomnia who was worried about the son who'd been struck on the head with a machete.

Sofia Dubon, MD, the local neurologist who works with the clinic, said she was struck by Dr. Robbins' patience with patients, and the way he asks her opinion about cases. Approximately 800 patients so far have benefited from the clinic's care this year.

## The Clinic's Operational Challenges

"One of the challenges [for the clinic] is being able to sustain the project in the long-term," said Dr. Dubon. "As people become aware of the clinic, we are receiving more patients whose lives, and those of their families, have changed in a positive way."

About 40 percent of the patients have epilepsy, 40 percent experience headaches, and 20 percent have other issues, Dr. Robbins said.

And many things have changed since the clinic opened. For one, although there is a small medical community, with two medical colleges and a public hospital, there was no formulary for neurology drugs. Many of the patients were on

older medications, or on therapies that were not right for their diagnoses.

"When I asked, 'What's available?' for migraine, for Parkinson's, for pain, I was told to go to the pharmacy and ask what they had," Dr. Robbins said. "It took about a year for us to put together a formulary, and we've translated it into Spanish. We are publishing it in the main medical journal in Honduras."

There are a fair number of pharmaceutical options in Honduras, Dr. Robbins explained, but certain drugs are not available. Dr. Robbins brings medication in from the US, one of the biggest costs for the clinic, and also tries to choose drugs that don't require regular blood tests. Sometimes when he travels to the country he gets questioned by authorities about drugs he is carrying, so he brings a letter from the clinic explaining which drugs he is bringing and for what use.

The medications include 6,000 pyridostigmine pills, about four months' worth, to help 35 patients with myasthenia gravis. The patients are "lucky if we can get a blood test," Dr. Robbins said.

## Recruiting Physicians and Researchers

Recently Dr. Robbins hired a Honduran psychiatrist to work with clinic patients. She will also see children at the large orphanage next door, many of whom have attention-deficit issues and behavioral problems.

"It will be fun working with our new psychiatrist on mutual patients through email and WhatsApp, which works better than texting," Dr. Robbins said. "She is going to start a chronic pain psychotherapy and support group."

The doctor has also been working with the medical school, encouraging local doctors to form a headache society to conduct research, something Dr. Dubon said she finds particularly exciting. Dr. Robbins also teaches neurologists and residents at the public hospital.

For doctors interested in establishing similar programs, Dr. Robbins recommends trying to find an already established clinic to collaborate with, and connecting with a local nurse who can work as an administrator and let medical centers know neurology services are available. Ideally a local neurologist would be recruited who can visit the clinic, he said, when its head doctor/chief is not there.

Creating the clinic took time, and brought with it considerable technological frustrations: *Continued on page 20*



Dr. Larry Robbins (seated, center) is pictured here with the physicians, nurses, and support staff involved in the medical clinic in Honduras.



## IN THE PIPELINE

**EEG, Covert Awareness***Continued from page 1*


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**ARTICLE IN BRIEF:**  
**Severely brain-injured patients had normal brain responses to spoken language as measured by electroencephalography, researchers reported.**


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all ten whose pattern of EEG response was indistinguishable from that of 13 healthy controls were shown to be covertly conscious in the fMRI test; none of the 11 who had abnormal EEG responses showed signs of following instructions while in the fMRI.

The authors and other neurologists who specialize in disorders of consciousness emphasized that the findings need to be replicated in a larger group, and that the new technique would likely be used only as a screening test to identify those who should be referred for further testing in an fMRI. Moreover, the test as currently designed requires a more sophisticated EEG device than most neurologists have access to and requires analysis of the read-out by a specially trained technician.

But with hundreds of thousands of patients around the world living in nursing facilities or homes with a diagnosis of persistent vegetative state, and upwards of 20 percent of them estimated to retain covert awareness, neurologists familiar with the paper said it presents a challenge to the field.

“The thought of a single person with covert consciousness being unrecognized and voiceless is alarming,” stated the commentary by Brian L. Edlow, MD, director of the Laboratory for NeuroImaging of Coma and Consciousness at Massachusetts General Hospital, and assistant professor of neurology at Harvard Medical School. “The possibility that thousands of people around the world may be covertly conscious is a call to action.”

In his commentary, Dr. Edlow called the study “a major contribution to the field” because it presents a practical means of identifying a large number of those individuals at last.

**Study Details**

The EEG measurements used in the study sought to identify the brain’s response to what is known as the “natural speech envelope,” or NSE, the brain wave

activity that occurs in response to speech. The average combined response seen in healthy controls show two peaks of activity, one coming about 90 milliseconds after the NSE, the other coming about 200 milliseconds after.

Among the 21 brain-injured patients, only 10 demonstrated statistically significant blood oxygen-level-dependent activation during the active imagery task [on fMRI] as compared with the resting

**Neurologist, Honduras***Continued from page 19*

For instance, staff need to get permission from the mayor to use the one ambulance in town to transport emergency cases to the main city. But Dr. Robbins really enjoys the relationships he has developed with both his patients and the local medical community.

“I have been working with the physicians at the medical clinic next door regarding emergency patients,” he said. “They can email or use WhatsApp to send me questions. They staff a 24-hour mini-ED, although our supplies are very limited, and we are lucky if the x-ray machine is working.”

So Dr. Robbins is looking for more volunteers for his clinic. He’s also eager to help others start their own, which he said is mostly a matter of patience. Just finding a nurse administrator, for example, took about eight months, he said.

But opening a clinic is well worth the effort, he believes. It isn’t too hard, if you have the right ingredients: “It takes a lot of paperwork,” said Dr. Robbins, “and finding the right clinic to partner with.” **NT**