

news **NEUROVIRTUAL**



Solidarity in times of pandemic

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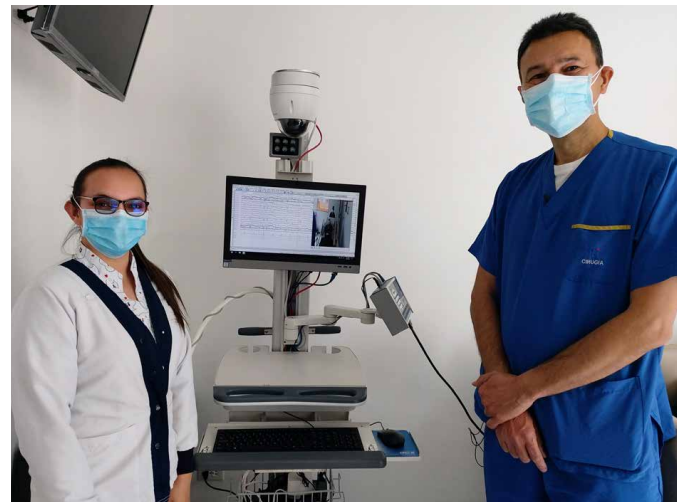
Solidarity in times of pandemic

*“Electroencephalographic monitoring with video provides important information about patients who are under sedation, **allowing us to check immediate and continuous brain activity and make decisions about treatment more quickly.**”*

– Dr. Jesús Hernán Rodríguez

We are living in a unique moment in modern times when different sectors of society have come together to fight a common enemy: the new coronavirus and its impacts on health and society. In such a delicate situation, solidarity emerges as one of the main weapons against the pandemic. Volunteers and companies, including Neurovirtual, have been mobilizing to assist institutions or people in vulnerable conditions. The company donated an electroencephalograph, the BWIII EEG Plus ICU Brain Monitor, to the Cardioinfantil Foundation of Bogotá (Colombia).

Neurovirtual News spoke with Dr. Jesús Hernán Rodríguez, a neurologist and neurophysiologist, coordinator of the neurology service and of the neurophysiology laboratory at the Cardioinfantil Foundation, and with Paula Saavedra, a nurse at the same institution, to understand how Cardioinfantil has been facing the challenges of the current moment.



The Cardioinfantil Foundation

The Cardioinfantil Foundation is a Colombian institution of high complexity that has provided care, diagnosis, and free treatment to children with cardiovascular problems since 1973. It offers many services, mainly dedicated to cardiovascular surgery, oncology, and transplants, in addition to other services, such as the neurophysiology laboratory.

Covid-19 and neurological changes

Currently, the foundation's neurophysiology laboratory has the capacity to serve 100 patients per month, which is equivalent to a thousand hours of EEG and videotelemetry in babies, children, and adults. Of the total number of patients examined, about 30% enter the positive Covid-19 registry, usually also showing pathologies that affect the brain, such as encephalopathies, acute ischemic injuries, seizures, or encephalitis.

Having equipment that makes the diagnosis more agile is essential for taking additional measures to the treatment and to favor the recovery of patients. *“Electroencephalographic monitoring with video provides important information about patients who are under sedation, allowing us to check immediate and continuous brain activity and make decisions treatment more quickly,”* explains Dr. Rodríguez.





FUNDACIÓN
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Tests carried out in the foundation's neurophysiology laboratory relate Covid-19 to encephalopathy, a brain dysfunction resulting from changes caused by the virus, capable of altering the state of consciousness of the patient. "It is not possible to determine the occurrence of sequelae, since the majority of patients also have respiratory changes with the need for orotracheal intubation, making it difficult to have an in-depth neurological assessment of their consciousness," says the neurologist. However, he emphasizes that most of the patients who emerged from the crisis did not show significant changes in their neurological function.

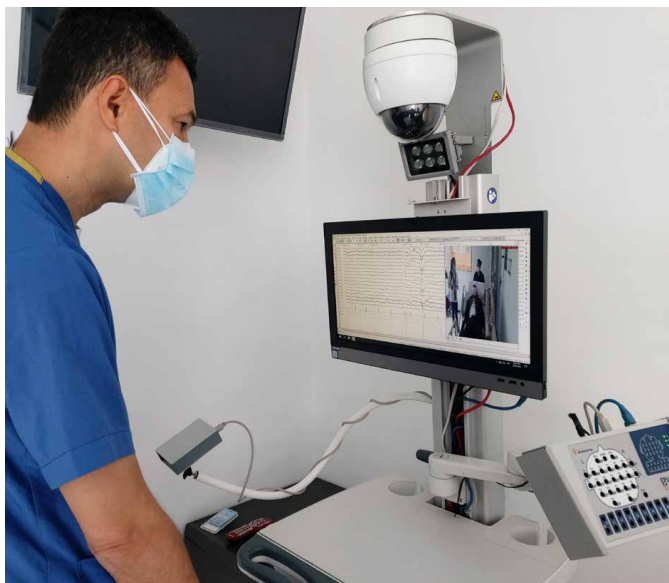
Changes due to the pandemic

The evolution of the pandemic caused changes in the routines and dynamics of the health institution, mainly focused on the protective measures adopted, both for the patient and for the professionals who perform the procedures. In the neurophysiology service, two teams are assigned to care for patients with Covid-19 and to carry out videotelemetry studies even more cautiously.

"The equipment is coated to prevent any microorganisms from this virus from remaining on the surfaces, in addition to being kept in an exclusive place so that no one has contact with them," explains the nurse Paula Saavedra.

Neurovirtual equipment

The Cardioinfantil Foundation team evaluated the electroencephalograph equipment, the BWIII EEG Plus ICU Brain



"By sympathizing with the serious current situation, actions such as the donation of equipment made by Neurovirtual translate into an easier execution of our work and increased access to a safe diagnosis for thousands of Colombians." - Dr. Jesús Hernán Rodríguez.

Monitor that was donated to the institution by Neurovirtual, and concluded that it adequately meets the needs of the institution. *"It provides us with the information we need quickly and accurately and allows us to make concise decisions for patients who need treatment or adjustments in their treatment in progress,"* says Dr. Rodríguez.

Nurse Paula complements the assessment, saying *"The equipment is easy to handle, meets all the criteria that the institution seeks to provide excellent care, and expands the opportunity to conduct studies with patients."*



Solidarity

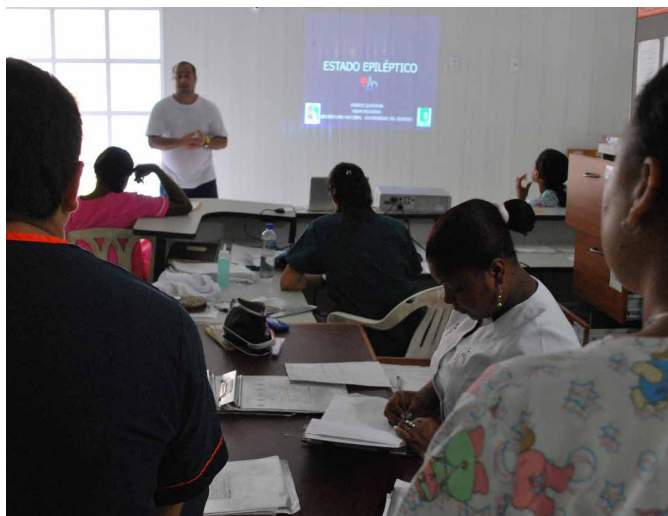
Whether for the Cardioinfantil Foundation or for other institutions, from Colombia to anywhere else in the world, solidarity has been at the forefront as an important requirement to expand the fight against the impacts of the pandemic. *"By sympathizing with the serious current situation, actions such as the donation of equipment made by Neurovirtual translate into an easier execution of our work and increased access to a safe diagnosis for thousands of Colombians,"* concludes Dr. Rodríguez.



Medical Care and Solidarity in Remote Areas of Colombia

How to give back to society some of the benefits received during life? For Dr. Andrés Quintana, a doctor specializing in neuropsychiatry, the answer lies in voluntary expeditions to rural areas far from large centers that suffer from a lack of professional care and medical attention.

Since 2010, Dr. Quintana has been carrying out four to six expeditions a year, specifically to the municipality of Bahía Solano (Colombia), where he performs comprehensive exams on pediatric patients who show some type of neurological symptom. Therefore, he is often able to act preventively with



the support of the local population and school teachers who are important figures in the early identification of neurological signs in their students.

Neurovirtual interviewed Dr. Andres, who explained in detail how the project started and the importance of having the support of companies like Neurovirtual on his expeditions.

Neurovirtual News: We would like to know more about you, and how you developed your career over the years.

Dr. Andrés Quintana: I am a doctor who graduated from the University of Quindío and specialized in neuropsychiatry by the National University of Colombia and the Central League Against Epilepsy, under the supervision of Dr. Carlos Medina Malo and Dr. Álvaro Izquierdo. I am also an anthropologist, from the Universidad de los Andes.

NN: When did you start these solidarity expeditions to serve populations with little or no access to medicine?

Dr. Andrés Quintana: I started in 2010, focusing on the Chocó department specifically in the municipality of Bahía Solano and in the valley. Our service is focused primarily on the comprehensive care for pediatric patients with neurological symptoms, rather than the lack of medication supplies.

NN: What regions do you usually go to? How is the process of defining the region to receive care?

Dr. Andrés Quintana: We focus mainly on the population with cognitive and motor disabilities, such as epilepsy. Sometimes we count on the support of other professionals in dental, psychiatric, and pediatric care, and we serve Afro-descendant communities and Embera and Wonnán communities too.

NN: Do you have the support of other institutions or the government in your expeditions?

Dr. Andrés Quintana: Most of the time the expeditions are carried out with our own resources or with the collaboration of the pharmaceutical industry, that donate medicines or airline tickets to some of the invited specialists. On other occasions, the local government collaborates with support in transport and accommodation, but there is no constant support from Colombian public institutions. Mostly, our work is invisible, but we have tried to make it constant. We also have



support in supplies and payment facilities to buy Neurovirtual electroencephalographic video equipment, allowing this population to benefit from this technology, by making it available to the community.

NN: How do you gain access to these remote regions? What are the challenges you usually face until you reach your destination?

Dr. Andrés Quintana: We arrive in Bahia Solano by plane, and sometimes to get to the countryside we travel by boat, motorcycle, car, canoe, or on foot, as in any other part of this rural country.

NN: Tell us about the work you do on these visits. What exams do you do? How is the educational process taught to children and adults about epilepsy?

Dr. Andrés Quintana: We do specialized consultations, EEGs and we train teachers for the early identification of childhood neurological pathologies. To a large extent, teachers are the identifiers of these specific situations, as they live close to the children's families and understand the population very well. All of our support is completely free of charge, including consulting the community, training teachers and doctors, and electroencephalography exams.

NN: What Neurovirtual equipment do you carry on these jobs and how do they assist you in your duties?

Dr. Andrés Quintana: We have used the BWII EEG since 2012, the BWIII EEG in 2016-2017, and now the BWMini EEG (our journey is still pending because of the pandemic). Likewise, we have the support of Neurovirtual through remote technical support which allows us to overcome unforeseen events even when we are in remote areas of the country.



NN: How important is it to democratize access to information and diagnosis in more remote communities?

Dr. Andrés Quintana: This pandemic has taught us that even though we are in a city, the restrictions in mobility (something that the inhabitants of the peripheries of the country share with our new reality) put us in a situation of remote assistance not only regarding the physical geographic distance. Therefore, I believe and attest to the fact that telemedicine and access to technologies are not only necessary but also define a new approach to the scientific community starting this year.

NN: How has the pandemic changed its dynamics in serving these regions?

Dr. Andrés Quintana: We have not yet been able to return to our expeditions. We are waiting for the situation to get better.

NN: How many expeditions to needy communities have you made in your life thus far?

Dr. Andrés Quintana: Since 2010, I was doing four to six a year. While I was doing my studies in epilepsy in 2018 and 2019 we stopped expeditions but came back in February 2020.

NN: In your opinion, what is the main legacy you leave in these communities?

Dr. Andrés Quintana: Without sounding clichéd, the truth is that they are very relevant to how I look at my professional activity and to how I develop the work within the communities. I graduated from two public universities and I believe I have something that can be returned to the country.



Master's Degree in Sleep Medicine (UE-IIS)



The Sleep Institute (Instituto del Sueño), in collaboration with the European University of Madrid, has developed a 100% online master's degree in sleep medicine, which will also serve to prepare students for the European ESRS (European Sleep Research Society) validation exam. The course is aimed at students who want to continue their studies and do not want to put a hold on their professional career, allowing them to continue practicing while specializing with us. In addition, once completed, it will then be possible to do an internship in any of the Sleep Institute centers, whether in Spain, Chile, or Panama, always under the direction and supervision of Dr. García-Borreguero, a member of the ESRS Examination Committee in Sleep Medicine.

It is a very complete online master's degree program which will last 11 months (60 ECTS credits) and will bring together great specialists from each area. This includes the guarantee from the European University of Madrid, a seal of approval that will ensure a versatile and dynamic format so that the student's experience is always the best possible, all through its already well-known virtual campus.



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More information

Qualification / Accreditation: Degree issued by the European University (Madrid) "Master in Sleep Medicine".

Current status: Registrations already open.

Duration: 11 months, including internships and master's thesis.

School year: From March 1, 2021 to January 31, 2022, approximately.

Language: Mainly Spanish, with some webinars and masterclasses in English.

Modality: Entirely online.

Program director: Dr. Diego García-Borreguero, Instituto del Sueño.

Coordination of the program: Dra. Celia García Malo, Sleep Institute, Institute, Dra. Irene Cano Pumarega, Sleep Institute.

Academic director: Beatriz Gal Iglesias.

Requirements: Any graduation, preferably in health sciences.

More information: pzj@iis.es



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After a year of unexpected challenges,
the Neurovirtual family would like to
pause and reflect on how grateful we
are to all of our customers for your
support. We wish you Happy Holidays,
and a 2021 full of hope for a better
tomorrow.

Happy Holidays!

Contact us:

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