



news NEUROVIRTUAL

The impacts of COVID-19 on sleep services

Page 4

Neurovirtual participates in AES
Annual Meeting, the world's largest
epilepsy event - [Page 2](#)

Annual meeting of the Mexican
Academy of Neurology, brings
together more than 1,000 neurology
professionals in Mexico - [Page 3](#)





Neurovirtual participates in AES Annual Meeting, the world's largest epilepsy event

The largest meeting and exhibition dedicated to epilepsy in the world, the Annual Meeting of the American Epilepsy Society (AES) attracted more than 5,000 professionals from different fields related to epilepsy and neurophysiology worldwide from December 6th to 10th in the city of Baltimore, Maryland.

Experts with different backgrounds and experience levels, such as neurologists, epileptologists, pediatricians, researchers and scientists, discussed how to improve the quality of life for people who deal with epilepsy.



The complete and diversified program included symposiums, informative and educational sessions, posters of presentations and practical workshops, enabling the exchange of knowledge about diagnosis and treatment, including new diagnostic methods, therapeutic modalities, and demonstrations related to epilepsy and its comorbidities. They also shared the most recent research and developments in the field of epilepsy with potential for application in clinical care and therapy.

The topics that were highlighted in the program were: Basic Science Skills Workshop; Chronic In Vivo Recording: Single Unit to iEEG; The Future of the Stat EEG Critical Care Epilepsy; Quantitative and Automated CEEG Analysis; and Quality and Safety: Measuring Quality of EEG Interpretation.

Another spotlight of the event was the organized networking sessions which facilitated the exchange of information among participants with similar interests, providing the creation of valuable connections between professionals.

Neurovirtual highly values the significance of this meeting for scientific advancement in diagnosis and took the opportunity to present its complete portfolio of solutions: the complete EEG monitoring system, the BWIII EEG Plus ICU Brain Monitor; the BWIII EEG designed for routine exams; the compact BWMini EEG for home exams and the BWAnalysis EEG/ICU/LTM software, represented by business manager, Sergio Solis.

Neurovirtual registers a significant number of visitors during the 56th Argentine Congress of Neurology

The city of Mar del Plata in Argentina hosted the most important scientific event about neuroscience in the country, the 56th Argentine Congress of Neurology, from November 19th to 22nd, 2019.

More than a thousand professionals from different medical specialties, both national and international, students and researchers, in addition to about 100 companies gathered over four days to discuss the main subjects, research areas, and technologies related to neurology. The scientific program included a complete agenda of activities, with courses, symposia, plenary sessions, roundtables, poster sessions, videos and pre-congress courses. Among the highlights covered in the program were the roundtables "Neurology at the frontier of life: handling the most prevalent neurological pathologies in adults in the emergency room;" "Not everything is Alzheimer's;" "Migraines: other dimensions;" "Real-life challenges in patients with multiple sclerosis;" the plenaries "Epilepsy and Infarction;" "Differential diagnosis of patients with acute vertigo;" and the video session "Cognitive and Behavioral Disorders: the importance of semiology in the differential diagnosis."

With a very strategic positioning, Neurovirtual's booth facilitated a high flow of visitors, including important names among the medical community, such as Dr. Roberto de Arbelaiz, neurologist at the German Hospital of Buenos Aires; Dr. Stella Maris Valiensi,



neurologist and head of the sleep service at the Italian Hospital of Buenos Aires; and Dr. Julieta Camji, neurologist and sleep medicine specialist.

Among the solutions shared by Neurovirtual were the BWIII PSG Plus and the portable BWMini Ambulatory EEG, in addition to the BWMini PSG. Employees Dubraska Quevedo and Andres Losada represented Neurovirtual during the congress.



Annual meeting of the Mexican Academy of Neurology brings together more than 1,000 neurology professionals in Mexico

The highly intensive discussions and the remarkable interest of the participants were commensurate with the magnitude of the XLIII Annual Meeting of the Mexican Academy of Neurology, held in Puerto Vallarta, on November 18-23, in Mexico.

In five days of scientific programming, lectures, debates, and presentations of research and case studies, about a thousand people, including students and professionals from different specialties, and national and international teachers of the highest scientific and academic level, debated the main topics concerning neurosciences and neurological updates in continuing medical education.

Doctors, nurses, neurologists, psychologists, and technicians were presented with different approaches in neurology with one common goal: to enrich their professional practice. A special highlight was the inclusion of younger teachers' presentations, who in addition to sharing new knowledge also shared new ways of thinking and new approaches in addressing the clinical problems that all doctors face in their daily lives.

Neurovirtual recognizes the importance of the academic class and was present at the event with an exhibition of its solutions in equipment and accessories, including the BWIII EEG, BWIII EEG



PLUS and the BWMini EEG. Joseph Pardo, an employee of Neurovirtual, represented the company during the annual meeting, clarified questions, and provided important information to visitors regarding Neurovirtual solutions, like its customizable and innovative equipment, along with 24-hour support, clear and concise records with a much longer life.

The Mexican Academy of Neurology employs continuous efforts to contribute to the growth and diffusion of neurosciences and to provide knowledge to its members for better patient care. Likewise, Neurovirtual acts with a focus on the humanization of diagnosis, bringing to the market the most modern technology and solutions to the sector.



Neurovirtual reinforces its solutions at the 17th Brazilian Sleep Congress



Famous for its waterfalls and natural beauty, the city of Foz do Iguaçu in Paraná (Brazil), attracted around a thousand people for a different reason between December 4th and 7th, 2019: the 17th edition of the Brazilian Sleep Congress, one of the main events of the sector in the country. Specialists from different cities, in addition to international professionals from more than 10 countries, were present to discuss the main topics related to sleep medicine.

Promoted by the Brazilian Sleep Association (ABS); the Brazilian Association of Sleep Medicine (ABMS) and the Brazilian Association of Sleep Dentistry (ABROS), the event had a multidisciplinary character, bringing together specialists from different areas, including doctors and non-doctors. It also held the IV Brazilian ABROS Congress, promoted by the Brazilian Association of Sleep Dentistry which included tests on polysomnography technique

certification; sleep psychology, sleep speech therapy and dentistry in sleep medicine.

The symposia, debates, and keynotes addressed leading topics and brought together specially selected speakers. Among the subjects covered were highlights of a multidisciplinary approach to sleep disorders; sleep disorders in women throughout the aging process; advances in the treatment of insomnia; simplification of apnea diagnosis; and challenges and technological advances in adhering to CPAP.

"We were counted in the presence of great names in sleep medicine worldwide, addressing important frontiers on the diagnosis and treatment of sleep disorders," remarked Dr. Luciano Drager, cardiologist and scientific coordinator of the congress, who is also an associate professor in the Department of FMUSP Medical Clinic.

Neurovirtual was present and reinforced its offer of sleep medicine solutions to the participants, with emphasis on the compact and modern BWMini PSG and the robust BWIII PSG Plus. Sandro Senra, clinical director, and Alex Oliveira, sales consultant, represented the company during the congress, answering questions, promoting equipment, and receiving guests, such as Dr. Mauricio Bagnato from the Sírio Libanês hospital in São Paulo.

According to Dr. Carolina Ferraz de Paula Soares, president of the congress, the event was a success in terms of feedback from participants, in addition to being "an opportunity to interact with researchers and national and international professionals with recognized experience in the field of sleep medicine." The next edition has already been confirmed to be held in the city of São Paulo.

The impacts of COVID-19 on sleep services

The novel coronavirus pandemic has been affecting thousands of people worldwide and has triggered a phenomenon that many have called the "new normal," a dynamic that requires institutions, governments and societies to rethink their actions and put in place a series of new habits to deal with the routine. The microscopic threat of COVID-19 has been dictating new standards and protocols in many different areas, and health and sleep services are no different.

As much as this segment is traditionally guided by strict precautionary control and hygiene measures, the pandemic has further expanded the care and protective actions in order to mitigate the contagion. Neurovirtual News spoke with representatives of two institutions, one from the United States and another from Brazil, to understand the new measures that are being adopted post-pandemic in relation to sleep services.

After all, as much as the world focus is aimed on combating COVID-19 and developing a vaccine, all other diseases continue to impact people's lives and cannot, and should not, be overlooked, due to the risk of aggravation.



Resumption of care

The uncertainties during the initial phase of the pandemic and the growth of infection and deaths by COVID-19, with a probable collapse of the health system, forced both the Louis A. Johnson VA Medical Center in Clarksburg, West Virginia (USA) and the Neurológika, Neurology and Neurosurgery Center of Moinhos de Vento Hospital in Porto Alegre (Brazil) to completely interrupt sleep services.

For two months, both institutions stopped performing a large volume of scheduled exams, given their elective nature. Only the most serious cases were referred to other hospital settings. According to Dr. Geraldo Rizzo, neurologist, neurophysiologist, and specialist in Sleep Medicine at Neurológika, **"The resumption of patient care took place in early June following a series of measures and controls."**

In the USA, the resumption took place in phases, prioritizing the most critical patients in the first stage. They started with telemedicine consultations, sending equipment for testing to patient's homes. **"We explained the setup over the phone, and after the exams, when we got the devices back, we quarantined everything for 72 hours before starting to download the results,"** explains Bradley Weaver, RPSGT and Louis A. Johnson VA Medical Center manager.

In the second phase, care started to include 25% of patients scheduled before the pandemic, including home visits in some cases. **"There is still a long list of backlogs that we are working on,"** says Weaver.

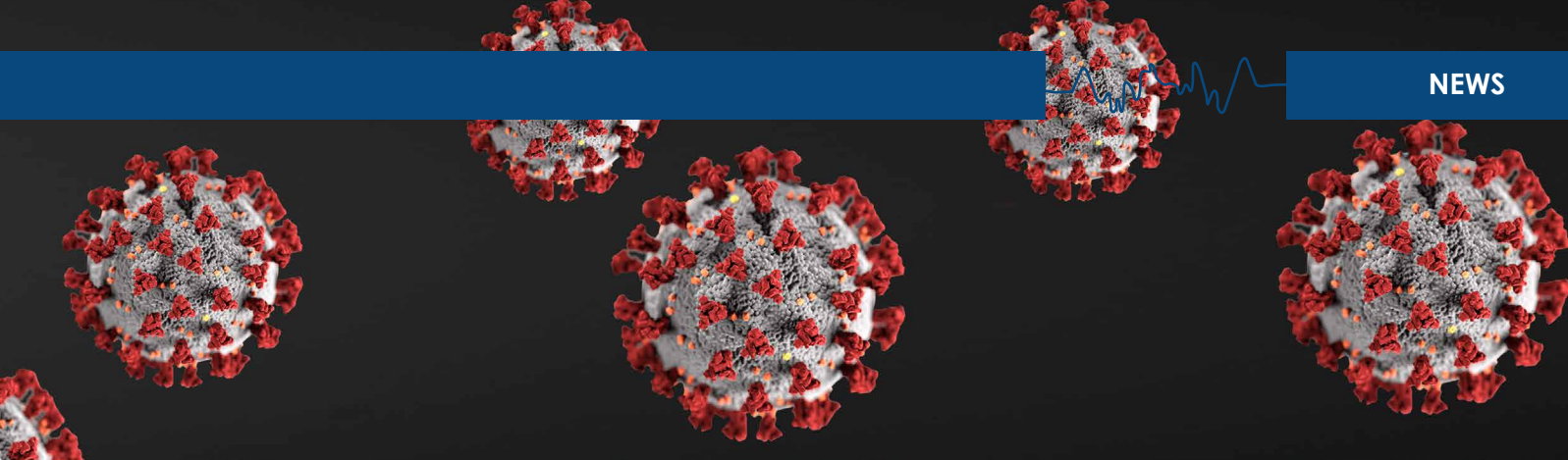
New security measures

Both the Louis A. Johnson VA Medical Center and Neurológika have adopted a series of protective measures that include not only social distancing, but also the mandatory use of PPE (personal protective equipment) for all employees – surgical mask and gloves – and for patients, who need to wear facial coverings.

Additional security measures took place as the institutions adjusted the configuration of common areas, with the temporary closure of living areas; suspension of collective drinking fountains; indication of the recommended social distancing with adhesives on the floor; and reducing the number of seats in the areas. **"We recommend that patients only come with a companion when it is extremely necessary and to arrive on time to avoid crowding in the waiting room,"** explains Dr. Rizzo.

The Louis A. Johnson VA Medical Center has instituted an extensive routine of testing and screening patients before any contact with people or equipment, measures that are generating confidence for patients to return to exams. According to Weaver, **"These testing protocols bring us a degree of comfort, but they do not guarantee 100% safety. However, I believe that by maintaining all preventive measures, we will be comfortable with what we are doing."**





In addition, part of the team continues to work remotely, and in cases of travel to other states the employees undergo very strict monitoring, sometimes with quarantine recommendation, before resuming activities at the hospital.

At Neurológika, Dr. Rizzo highlights some precautions: "In the case of electromyography, we use disposable electrodes; in electroencephalography, we always clean the surface electrodes very well, brushing them with soap and water and letting them air dry; and in polysomnography, we follow the protocols recommended by ABMS (Brazilian Association of Sleep Medicine)."

Dynamics for exams

At the Louis A. Johnson VA Medical Center, the first step for patients scheduled for a sleep study is to ensure that they undergo a Covid test. Depending on the profile, the rapid test is applied, with results in a few hours, or the regular test is performed, with results in a few days and the quarantine requirement prior to the sleep study. In the Brazilian clinic the scheduling team presents the details about the patient. **"We try to make sure that the sleep test is really necessary at that moment and that the patient does not have respiratory symptoms or has been in contact with someone diagnosed with COVID-19,"** explains Dr. Rizzo.

At this stage, the VA hospital has not been conducting CPAP titration studies in patients, though the polysomnography exam is maintained. Patients who tested negative take the exam wearing an N95 mask, while those who tested positive use a self-contained mask, which has the function of providing oxygen to the user. **"In this case, the time in bed is minimized, as well as the technical interventions performed during the registration of the polysomnography, in order to minimize the risks of contagion by the technical team,"** details Weaver.

As for Neurológika, the option was also for not performing CPAP titration during the pandemic period. **"The risks are related to the potential increase in the aerosolization of particles with CPAP, which means that the cleaning of the equipment needs to be carried out very carefully and in an almost obsessive way,"** points out Dr. Rizzo.

Future of sleep

The expectation for the future is that technologies continue to evolve to provide better diagnosis. If it were not for technology, much of what was done during the pandemic for online consultation and care for patients with other illnesses would not have been possible.

Specifically, in relation to sleep medicine, the prospects are promising. Just as many work functions that were assigned to the home office during social isolation are expected to follow this dynamic, sleep tests should also follow this trend.

"HST (home sleep testing) certainly gained a lot of

momentum due to the pandemic and tends to grow, especially with regard to the diagnosis of respiratory sleep disorders," points out Dr. Rizzo. However, he adds the caveat: **"Type I Polysomnography will still be irreplaceable for the assessment of many other sleep disorders."** Weaver agrees: **"I believe that home studies will grow and that we will reach more patients. And when the exam at home is inconclusive, then we will bring the case to the laboratory."**

For now, the recommendation is optimism and vigilance. The pandemic will pass, the search for exams will be resumed, and the tendency is for the "new normal" to evolve and, in due time, bring back only the "normal."

Louis A. Johnson VA Medical Center

The Louis A. Johnson VA Medical Center is located in the city of Clarksburg, West Virginia. The hospital facility was inaugurated on December 7, 1950 and in 1989 began clinical care. Since 1960, it has been operating as a teaching facility, with active participation in academic residences. The institution was named after Louis A. Johnson, Secretary of Defense for President Harry Truman. The acronym VA stands for Veterans Affairs, referring to the Veterans Health Administration system, originated in the 19th century during the North American Civil War.



Neurológika

Initially called Instituto de Neurofisiologia Clínica, Neurológika was founded in 1984, as an outsourced service of Hospital Moinhos de Vento in Porto Alegre. At that time, the institution performed electroencephalography, electroneuromyography, and evoked potentials. With the evolution of the area of clinical neurophysiology it began to perform polysomnography, neonatal polygraphy, and intraoperative monitoring. In addition to serving outpatients it also serves those admitted to the hospital and performs examinations at home or in hospitals that do not have the necessary technology.

Sleep Disorder Symposium discusses the present day and the future of sleep disorders in Colombia

The Colombian Sleep Medicine Association (ACMES) Symposium on Sleep Disorders – Present and Future was held on February 21st and 22nd in the city of Bogota, Colombia. Aiming to bring an overview about sleep disorders at different stages of life, the symposium's program addressed several themes and brought together speakers and specialists from different areas, such as neurology, geriatrics, pneumology, pediatrics, otorhinolaryngology, gynecology, radiology, dentistry, psychiatry and physiotherapy.

Among the topics discussed at the symposium, special highlights were "New surgical techniques for the management of sleep apnea;" "A good PAP qualification: a challenge in the sleep laboratory;" "Biomarkers for sleep apnea in diagnostic processes;" "Accreditation process for sleep laboratories and professionals in Colombia;" and "New perspectives for insomnia diagnosis and treatment; Differential diagnosis of motor activity during sleep."



Neurovirtual sponsored the event and was represented by employees Andrea Parra, Paula Quiroga and Angie Medellin, who registered a high flow of visitors to the booth and good recognition of the brand by the public, who showed special interest in the HST COMPASS and polysomnographers BWMini PSG and BWIII PSG.

In fact, the company was visited by renowned professionals in the sector, such as Dr. Andres Franco, neurologist and master in sleep physiology and medicine; Dr. Jesus-Hernan Rodriguez, neurologist and sleep medicine specialist; Dr. Steve Amado, otolaryngologist and sleep medicine specialist; and Dr. Franklin Escobar, scientific director of Fundasuvicol (Fundação Sono e Vigília Colombiana).

First International Symposium on Neonatology in Mexico addresses newborn care



Bringing together about a hundred doctors of different specialties, the First International Symposium on Neonatology, held on February 7th and 8th in Monterrey, Mexico, addressed the main issues related to care, neurological treatments, neonatal intensive care and high-risk newborn monitoring.

Although advances in critical care for newborns and premature infants contribute to improving neonatal mortality rates worldwide, there is still concern about complications and neurological sequels that may occur. "For this reason, we have set up this symposium in order to present and discuss the new trends for the care of these patients," explained Dr. Rafael Caso Monge, medical director of the Gynecological and Obstetrical Hospital of Monterrey.

In an effort to encourage discussions and equip teams, the topics covered in the two days of scientific programming were of great value to the participants. Among the highlights were: "Perinatal factors associated with neurological damage;" "Tools for neurological monitoring (EEG, AEEG, NIRS);" "Early approach and intervention in hydrocephalus;" "Neonatal neurological exploration;" and "Early identification of neurodevelopmental disorder."

The only equipment company present at the event, Neurovirtual, had a demonstration table focused on neurological diagnosis and presented the BWIII EEG, BWIII EEG PLUS ICU Brain Monitor; BWMini Ambulatory EEG equipment, as well as

accessories and supplies for EEG and PSG. In attendance were employees Joseph Pardo and Jessica Morales, as they demonstrated and presented to the public the practicality of the equipment and the innovative technology employed by the company to build its solutions.

To fulfill its purpose, the event counted on the participation of renowned doctors with great professional trajectories. "They shared experiences in the different disciplines that are part of neonatal intensive care, with a special focus on neonatology; pediatric neurology; radiology; neurosurgery; maternal-fetal medicine; neurological development; and rehabilitation medicine," explained Dr. Luis Gerardo Martínez Valades, general coordinator of the organizing committee.



Complete solutions for home EEG, HST and PSG exams



BWMini EEG



BWMini HST



BWMini PSG



BWMini HST Compass



The spread of the novel coronavirus across our country has created a very stressful environment for all Americans, and we want to reassure all Neurovirtual customers that we are available to assist via web and phone support 24/7.

Our tech support team is working from home with the same round-the-clock availability you've come to expect, and we will continue to support our customers while doing our part to slow the spread of Covid-19.

Please follow the guidelines set by your local authorities, and please stay safe.

Sincerely,
Ed Faria
President & CEO Neurovirtual



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