BRO**©**KS° Rehabilitation

BEYOND

FALL/WINTER 2021













TABLE OF ONTENTS



Letter from the President & CEO

Doug Baer

System of Care About Brooks

Meet Our Physicians 06 Brooks Rehabilitation Medical Group

Q&A Parag Shah, MD

Patient Highlight Antonio McCoy

Technology Highlight 16 Virtual Reality and Holograms

Research Highlight 18 Backwards Walking After Stroke

Patient Highlight Coleman Watson

Program Highlight Dry Needling

Patient Highlight 26 Adriana Fiorilo

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Managing Editor:

Kathy Barbour, APR, Fellow PRSA

Editor: Jill Matejcek Design: Rebecca Russo Photograpy: Tracy Davis

Contributors:

Christa Espino, Rick Graf, Jill Matejcek

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Address all correspondence to:

Brooks Rehabilitation Corporate Marketing Department

3599 University Blvd. S. Jacksonville, FL 32216 or email BrooksBeyond@BrooksRehab.org.

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Doug Baer



We are all excited and hopeful by the progress we are making against the pandemic. The demand for our services is growing and our teams are

committed to achieving the best outcomes for our patients and families.

One of the keys to our success is developing specialties in treating certain diagnoses by investing in the latest technology, utilizing best clinical practices, testing new treatments, developing our teams' expertise and providing a system of complimentary community health services. This is the case for our stroke system of care, which is highlighted in this issue.

All of us understand the importance of the work we do every day. When a family experiences a stroke or some other debilitating injury or illness, all else in life becomes of secondary importance. I am so proud of our employees and the dedication, passion and expertise they demonstrate every day to overcome any obstacles we encounter to achieve the best outcomes.

We will continue this pursuit of excellence as we expand our programs and operations to serve even more people in the future.

Dylus h. Baen

About Brooks

BROOKS REHABILITATION

SYSTEM OF CARE



ADAPTIVE SPORTS & RECREATION · APHASIA CENTERS · BRAIN INJURY DAY TREATMENT PROGRAM · BRAIN INJURY CLUBHOUSE CONTRACT THERAPY SERVICES • HELEN'S HOUSE • INSTITUTE OF HIGHER LEARNING • NEURO RECOVERY CENTERS • PEDIATRIC RECREATION RESEARCH • SCHOOL RE-ENTRY PROGRAM • SPINAL CORD INJURY & RELATED DISORDERS DAY TREATMENT PROGRAM • SUPPORT GROUPS • WELLNESS

> "Patients are at the center of all we do at Brooks Rehabilitation. Through our coordinated system of care, not only can we provide seamless transitions for our patients between levels of care, we can also effectively treat patients in the right setting for their individual needs resulting in the best possible outcomes."

> > - Doug Baer, President & CEO



Rebecca Andrew, MD



Natalya Bulaeva, MD



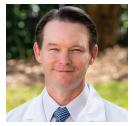
Mabel Caban, MD



Charles Dempsey, MD Medical Director, Rehabilitation Services at Bartram Crossing



Virgilio de Padua, MD



Jantzen Fowler, MD



Pierre Galea, MD



Ivy Garcia, MD Staff Physiatrist



Brian Higdon, MD Associate Medical Director of the Spinal Cord Injury Program, University Campus



Katelyn Jordan, OD Low Vision Optometrist and Center Manager



Cassandra List, MD Medical Director, Stroke Program and Spasticity Management Program



Jorge Perez Lopez, MD Medical Director, Halifax Health | Brooks Rehabilitation Center for Inpatient Rehabilitation



Kerry Maher, MD Senior VP, Physical Medicine and Rehabilitation (PM&R) Consulting and Education



Kenneth Ngo, MD Medical Director, Brain Injury Program & Day Treatment Program, University Campus



Trevor Paris, MD System Chief Medical Officer



Parag Shah, MD Solutions, Bartram Campus



Keisha Smith, MD



Sarala Srinivasa, MD Staff Physiatrist



Geneva Tonuzi, MD Medical Director, Spinal Cord Injury & Related Disorders Day Treatment Program. Medica Director, Cyberdyne HAL Therapy



Marla Trapp, MD Family Medicine Physician



Howard Weiss, DO Medical Director Orthopedic/Trauma Program and Amputee Program

Rehabilitation Hospitals · Skilled Nursing Facilities · Home Health · Physician Practice · Outpatient Therapy & Services · Assisted Living & Memory Care



Parag Shah, MD, will be the medical director at our new 60-bed, state-of-the-art inpatient rehabilitation hospital. opening at our Bartram Park campus in 2022. Dr. Shah has focused on providing care to patients with complex conditions - ranging from the neurological to injuries that require cardiac and transplant rehabilitation - since 2016.

Dr. Shah received his medical degree from St. George's University in 2012, completed his residency in Physical Medicine and Rehabilitation (PM&R) at Wayne State University and earned his board certification in PM&R in 2016. He also holds a Master of Business Administration from Wayne State University.

YOU HAVE SAID YOU ALWAYS KNEW YOU WANTED TO BE A PHYSICIAN, HOW WAS THAT SO?

I think that, when growing up, it was a well-respected profession where you could make an impact in the community, have a positive impact on people's lives and have the opportunity to help patients get better. That was very inspiring to me.

HOW DID YOU GET INTERESTED IN REHAB MEDICINE?

I had my first ACL injury when I was wrestling during my senior year in high school. When you're limited in your abilities, sometimes you don't feel like yourself and that can impact your mental health and overall well-being. I then saw the value in rehab at a young age and that quality rehab can have a positive impact on an individual's joy in life.

YOU HAVE AN MBA AND ALSO SERVE (AND WILL CONTINUE TO SERVE) AS MEDICAL DIRECTOR FOR BROOKS' DATA SOLUTIONS TEAM. TELL US ABOUT THAT.

I've always had a passion for business as well as medicine and I really wanted to be knowledgeable in both areas of expertise. It really helps to build processes and programs

when you can understand both sides, the clinical side and the administrative / financial side. You can help patients understand the clinical impact and the financial effects hopefully to achieve the best outcome. I was on the team that looked into creating the Brooks patient portal and I was asked to take on a bigger role with data. That role gets me excited because the potential to make a meaningful impact with data is boundless.

PRIOR TO YOUR UPCOMING ROLE AS MEDICAL DIRECTOR AT OUR NEW INPATIENT REHABILITATION HOSPITAL. YOU WERE MEDICAL DIRECTOR FOR STROKE AT **OUR EXISTING UNIVERSITY CAMPUS HOSPITAL. WHY** STROKES, SPECIFICALLY?

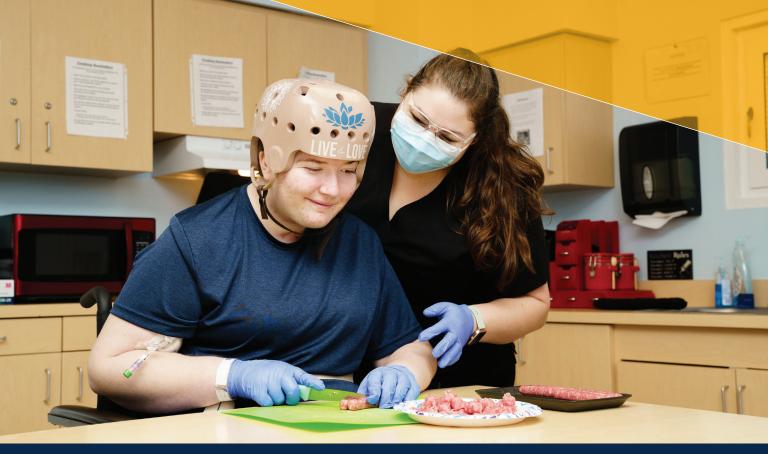
Strokes can be devastating and patients may need more social support - they might not be able to do the same things they could do on their own that they could before. I think those types of things drew me to this patient population and they're seeing that we can make a difference when we have a well-organized, a well-thought-out, processdriven, patient-centric approach. We can make great outcomes with the rehab, the medical management and by constantly and consistently helping and coordinating care with patients and their families.

HOW DO YOU FEEL BROOKS DIFFERENTIATES ITSELF IN STROKE CARE AS OPPOSED TO OTHER **HEALTH SYSTEMS?**

In addition to our clinical expertise and technology, I think people at Brooks just care more. They actually care about their patients. They care about their outcomes. They're going to call you and make sure that things are going well, even after you leave our hospital and they're going to continue providing services for as long as you need them. I think that's the biggest difference.







Occupational therapist, Tracy Ogilvie, MOT, OTR/L, works with patient Sarah Barden on fine motor skills after her stroke.

A DIVERSITY OF PROGRAMS AND RESOURCES

Every year, Brooks treats nearly 700 stroke survivors in our acute inpatient rehabilitation hospital alone – helping patients and their loved ones rebuild their lives and achieve their goals. This places Brooks as the number one stroke rehabilitation provider in Florida and the Southeastern U.S. and in the top ten in the country.

Cassandra List, MD, joined Brooks two years ago and is Medical Director for the Stroke program and Spasticity program at Brooks Rehabilitation Hospital – University Campus. "When you come into a system like Brooks with a great reputation for providing exceptional patient-centered care, you are honored to be here. Then to see how many resources I can provide my patients with and actually see my patients improve because of those resources, has been even more rewarding. Just because they leave the hospital, their rehab doesn't stop. It's the diversity of the programs and resources available to our patients that really makes a difference."

Brooks offers a true stroke continuum of care: inpatient, outpatient, skilled nursing, home health and an array of community programs not found elsewhere. A person can enter the Brooks stroke continuum at any point and at any time, to get the rehabilitation help they need for the best possible outcome.

In many cases, Brooks will begin working with a patient well after their stroke occurred and after they may have received rehabilitation elsewhere. "I've seen stroke patients who had their stroke a year ago, five years ago, 10 years ago and for whatever reason they did not receive complete – or any – rehabilitation services," said Dr. List. "Now they've been referred to Brooks. It's bittersweet in the sense that I wish we could have offered services to them earlier, but it's also exciting to know we still have so much we can offer them.

For example, maybe they get referred for their spasticity (muscle tightness in the arms or legs) after they've had the stroke. And yes, we certainly address ways to get them walking better or make it easier to get dressed. But we'll go further and interview deeper. Maybe the patient feels their thinking isn't quite right... well, let's get a neuropsychological evaluation to understand their thought processing, memory and attention. Do they need additional physical or occupational therapies to address limitations? Maybe they're still having trouble with their speech or language ability and they never had intense speech therapy, I can refer them to a specialist for that.

So, they might come into Brooks with one issue that they would like addressed, but, as a rehabilitation physician, my job is to look at the whole picture of their rehabilitation and work with the team to determine what we can do to help optimize their recovery, wherever they are in that process."

STROKE RECOVERY PATHWAY: ENSURING THE SAME QUALITY OF CARE THROUGHOUT THE SYSTEM

It's a priority at Brooks to ensure that this high quality and caliber of care exists throughout the entire Brooks system. That's the impetus behind the "Recovery Pathway" program. Due to the large volume of stroke patients Brooks treats, stroke care is the initial diagnosis being addressed.

It's important to note that a Recovery Pathway does not mean standardized or "cookie-cutter" care, even if of a high quality. "The plan of care for each stroke patient is individualized to that patient, because even a stroke in the same area of the brain can affect two people differently," said Dr. List. "We have a customized plan of care that's developed by our interdisciplinary team for that specific patient and the specific needs of that patient. But the Recovery Pathway is an effort, within that individual care, to make sure that each of the patients are receiving the same quality of care throughout the system. So, if you're being treated for stroke in our rehabilitation hospital, when you transition home, we want the communication in place with our home health team to ensure you're getting the same degree of expertise, focused specifically on your stroke, that you received as an inpatient."

Rhonda Flores, PT, Therapy Manager of Clinical Work at Brooks Rehabilitation Hospital - University Campus, is spearheading the Recovery Pathway program. "The Stroke Recovery Pathway came from the realization that we wanted our system to be unified in the way we approach the care of our stroke patients. Having the same high level of care, with the use of information, technology and the evidence-based research, is the Brooks culture we want to solidify."

Under Flores, there are two fundamental pillars for the Stroke Recovery Pathway:

- 1. Brooks will apply neuroplasticity principles in every single patient's treatment. Neuroplasticity is the ability of the brain to compensate and adjust to changes, like a stroke or injury, by forming new neural connections over time. The three principles of focus are intensity, salience and specificity.
- 2. Brooks will use outcome measures to track the patient's progress, so we can see the progress that they've made at any one point and throughout the system. Clinicians understand the importance and the need to do outcome measures, pre and post, using evaluations that are evidence-based for stroke patients.



"Unjoitunately, we live in a re a lot of our healthcare is influenced by insurance and what insurance will and won't pay for," said Dr. List. "Traditionally, once a patient completes, say, just as an example, 10 therapy sessions that insurance will cover, then they're done and have no other options. But Brooks offers so many other resources outside of the insurance constraints."

For example, our Neuro Recovery Centers (NRC) are state-of-the art rehabilitation centers offering specialized equipment for customized rehabilitation during and after traditional therapy has been completed. Individuals can join with monthly memberships to access to our innovative technology and can utilize the gym up to six days per week.

The Brain Injury Clubhouse provides a place where individuals with an acquired brain injury or stroke can assist in clubhouse operations, such as meal planning and preparation, business office work, facilities maintenance and product production. The neighboring Brooks Rehabilitation Aphasia Center (BRAC) offers a community track, providing coordinated group activities and an intensive, comprehensive aphasia program, providing individual therapy and immersive group therapy for 20-25 hours per week for six weeks.

Brooks Rehabilitation also offers one of the most comprehensive and diverse adaptive sports and recreation programs in the country. The program provides opportunities for fun. fitness and friendship to individuals of all ages and abilities living with physical and/or visual disability. No experience is required and there is no cost for participation with all equipment, instruction and coaching provided free to all individuals.

STROKE BEYOND PECCENTY

Brooks has the experience and experts to help stroke survivors recover. Brooks provides more specialized, focused stroke rehabilitation than others offering the most innovative, scientifically supported treatments available.

Patients are offered the newest, state-of-the-art equipment and innovative technology with proven outcomes for stroke survivors. As a research entity studying stroke recovery, Brooks helps determine the best treatment techniques.

PROGRAM OVERVIEW

B - BROOKS N - NATIONAL 2020 Data



To a Skilled Nursing Facility: B 21% / N 20%

AGE

B 67.03 / N 68.29



690 PATIENTS

371 Males 319 Females

Dysphagia: 507 Patients



MINUTES OF THERAPY PER WEEK

B 1,041 / N 987

TYPES OF STROKE

Right Brain: 264

Left Brain: 276

Bilateral Brain: 51

No Paresis/Other: 99

FUNCTIONAL CHANGE

Per Day B 1.52 / N 1.48

Case Mix Index (CMI) B 2.03 / N 1.71

LENGTH OF STAY (DAYS)

B 20.05 / N 19.02 止



We offer a full system of care—from inpatient to outpatient to post-rehabilitation exercise—to meet each patient's needs at all stages of recovery.

In order to adapt this to each setting, we must define best practice as it relates to inpatient, home health, outpatient and aging services and develop strategies to incorporate those guiding principles into the care provided.

INVESTING IN EDUCATION:

THE CLINICAL PRACTICE ENHANCEMENT PROGRAM

The Pathway Program falls under the umbrella of the Clinical Practice Enhancement Program (CPE). This program is spearheaded by the Brooks Institute of Higher Learning (IHL), led by the CPE coordinator, Jackie Osborne, DPT, GCS.

The program is a system-wide professional development program for clinicians who work directly with patients. Brooks realized that the day-to-day operations of clinical practice can become so busy that it's often challenging for clinicians to learn new ideas and implement new strategies. The CPE program is designed to help clinicians do just that, to stay cutting edge with the services they deliver by providing them with the resources needed to implement evidence-based best practices every day with every patient.

The first cohort group under CPE are clinicians who work with stroke patients - including 120 people in home health, 50 people at our rehabilitation hospital and 40 people who work with outpatients. They are all getting training specific to the management of stroke patients.

Sara Cristello PT. DPT. is the Director of Clinical Operations at Brooks. The IHL is leading the CPE program, in collaboration with Brooks subject matter experts and leaders from across the enterprise who are helping develop it. "There's no organization in the U.S., perhaps the world, that we know of that's doing this type of education for all clinicians across the entire system," said Cristello. "It's a robust program that includes face-to-face education, self-study courses and presentations, monthly group discussions and in-person mentoring. The program is during work hours. We're carving out time for employees to invest in their clinical skillset to become experts in their fields for the betterment of our patients. It's for all employees, not just those who choose to do a residency or fellowship. It's a huge differentiator for Brooks"

"This idea of clinical practice enhancement that is systemwide for the professional development of clinicians is a novel concept that has never been applied before in this way. At Brooks, we are leading the way with this innovative program and taking the concept of experiential learning in the clinical setting and creating a powerful way to integrate evidence with practice," said Osborne.

AS IMPORTANT AS THE PHYSICAL: THE MENTAL HEALTH SIDE OF STROKE

Mood is a large component of stroke recovery. The mental health of a stroke patient can be affected in two ways having to adjust to how their body may have changed and how their life may have changed and/or the fact that the actual areas of emotion in the brain may have been affected by the stroke.

"Usually, it's a bit of a combination of both," said Dr. List. "So, there's a lot of education we provide to patients to make sure they're aware of what they may go through emotionally - that their emotions may be altered. It's not something to ignore because mood plays a big role in functioning and therefore recovery."

Russell Addeo, PhD, is a neuropsychologist and Director of Behavioral Medicine at Brooks Rehabilitation. "The majority of people who have had a stroke will at some point develop depression. It could be related to the severity of the stroke, or it could be related to a prior history of depression." If a stroke patient is tired, sad or not sleeping well, they'll lose motivation. They won't do as well at rehabilitation because they're not going to want to participate. If depression isn't treated, you could have worse outcomes not only in terms of rehabilitation, but also worse outcomes in terms of survival. The survival rate for people with untreated post-stroke depression is lower than those who've had the advantage of mental health resources.

The fact that Brooks provides comprehensive care from a psychological perspective, in addition to the physical recovery, differentiates us from other systems," said Dr. Addeo. "We provide psychological services acutely at the Brooks hospital, where our psychologists and neuropsychologists assess and treat depression and any additional challenges the patient may have while they're here.

At other points in the continuum, our Brooks physicians will refer patients to our psychological services. Our physicians may consider prescribing stroke patients an anti-depressant medication and then psychological services will help with managing and coping with the consequences of the stroke and dealing with any depression."

"It's all connected," said Dr. List. "At Brooks, we know we can't address just individual pieces of stroke recovery. They all work together. In rehabilitation, we work in an interdisciplinary team with physical, occupational, speech and cognitive therapists, as well as neuropsychologists. We each have our areas of expertise and we work together to get the best results - the best recovery or chance of recovery - for our stroke patients."

Rhonda Flores

Longevity, a Culture of Caring and Making Brooks "Shine"



"I love challenge and we have never stood still with anything that we provide our patients."

Rhonda Flores, PT, left Howard University as a new physical therapist and came to Brooks in July 1994. And, 27 years later, she's still here. Today, as Therapy Manager of Clinical Work, her focus - and her passion - lies in the creation of best-inclass, innovative clinical program enhancements and employee development. This includes leading the new Brooks Recovery Pathway program, which will ensure that the highest quality and caliber of care exists throughout the entire Brooks system. (See Stroke Program feature article, p. 8.)

The obvious question to Flores is, what has made her stay 27 years (and counting)? "I love what Brooks stands for," said Flores. "I love the culture, the quality of care that we consistently strive to provide our patients. We never stand still. And that is why I'm still here. I love challenge and we have never stood still with anything that we provide our patients. We consistently look for what is out there that is going to be the best for our patients, we're always looking for that."

For a number of years Flores treated all diagnoses as a physical therapist, before becoming therapy manager for stroke. As manager, she shared her knowledge, skills and passion for quality care with both therapy and nursing teams. She also improved the level of the stroke program to help with Commission on Accreditation of Rehabilitation Facilities (CARF) accreditation and outcome-based marketing. "I grew tremendously in my manager role, building a team that became linked to the community," said Flores. "Yet, one of the biggest things I realized is that, as a manager, you get so concerned with day-to-day operations that it's often hard to focus on how to make the program better."

And while the day-to-day is clearly critical, Brooks and Flores realized her true talents lie in the "how do I improve the program" category, leading to her current position. "You need people looking at that every day - and that is what I'm doing now, said Flores. "Brooks commits to it and that is why you are going to continually see programs get better and better. It's like Brooks gave me this golden role - 'This is what you're going to be doing now, Rhonda, find things that are going to make us shine' - and I love it. And that's a reason why I stay, too, because anything that is going to keep Brooks shining is what I want to do."

Flores' role as Therapy Manager of Clinical Work will allow her to extend her expertise to all programs throughout the system. Her goal is to find and implement ways for programs to grow together, while always focusing on the Brooks culture of quality care.

Antonio McCoy



Although Antonio's speech is still limited, there is one phrase he's perfected and uses often.

"Thank You!"

Antonio McCoy went from being a lead chef with a national restaurant brand, husband and loving father to homeless and alone within a year. He had a series of three strokes that changed his life forever.

Physically and cognitively, Antonio improved. The strokes, however, caused oral-motor apraxia. Apraxia is a speech sequencing disorder. According to the National Institute of Health, "The brain knows what it wants to say but cannot properly plan and sequence the required speech sound movements." It affects each person differently, sometimes only affecting a few speech sounds and in severe cases such as Antonio's, it can leave someone unable to speak at all.

Antonio moved to Jacksonville, Fla., to be near his two children after his divorce, but his disability left him with a limited income. He could afford his car payments so his car became his home.

Antonio started speech therapy at Brooks Rehabilitation to help with his apraxia. His speech-language pathologist told him about the Brooks Clubhouse and recommended he join. The Brooks Brain Injury Clubhouse is a full-time day program that provides for the long-term recovery needs of individuals who have experienced an acquired neurological/brain injury, such as a stroke.

Working side-by-side with professional staff, members run every aspect of the clubhouse including meal planning and preparation (culinary work unit), business office work unit, facilities maintenance and product production. Having been a lead chef, Antonio was drawn to the culinary work unit. "His

work ethic was amazing," said Clubhouse Manager, Kathy Martin, M.Ed., CRC, CPCRT, CBIST. "He reorganized our entire kitchen and helped keep everything running smoothly."

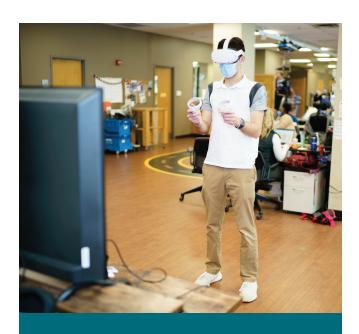
The Brooks Clubhouse also helps prepare members who are able to re-enter the workforce. Mona Taylor-Gordon, Clubhouse Work Unit Supervisor, helped Antonio prepare for an interview with a chef at Morrison's, who handles food services for Brooks. Based on his exceptional organizational skills, Antonio was given a job in the dietary department helping keep the supply rooms on the hospital floors stocked for the patients and nursing staff.

With this additional income, Clubhouse staff helped Antonio find a studio apartment. Other members donated furniture and helped him move in. Antonio was able to start cooking again and shares that his favorite meal to make is lasagna.

Antonio was so grateful for the support he received that he committed to supporting others. He would share leftover food and donations with the homeless community where he once belonged. He had a full BBQ lunch catered for the Clubhouse members and also recently led a donation effort for a group called Fostering Hope. He saved from his limited funds to purchase needed supplies for 12 foster families. Brooks Clubhouse members made gifts of activity books and crayons to go in the supply baskets and Clubhouse staff donated gift cards.

Although Antonio's speech is still limited, there is one phrase he's perfected and uses often - "Thank You!"

Innovation in Rehabilitation Technology



BROOKS REGULARLY WORKS WITH LEADING HEALTHCARE TECHNOLOGY AND EQUIPMENT COMPANIES TO HELP DEVELOP AND TEST **NEW TOOLS THAT WILL** BENEFIT OUR PATIENTS.

Brooks will also vet and acquire new technology purchases through our Innovative Clinical Technology Committee. Clinicians throughout our system can submit a request to the committee to access capital funds in order to pursue new and innovative technologies. The committee will work with the clinician to determine if the technology is beneficial and, if so, purchase it for use throughout Brooks.

Bob McIver, PT, DPT, NCS, director of Brooks Clinical Technology and Wellness Programming, shares some of the latest technology in and around Brooks:

BROOKS HOME HEALTH TECHNOLOGY KIT

Traditionally, a lot of technology is not easily available for home health because it's not very portable and if it is portable, it's usually quite expensive. We have functional electrical stimulation (FES) bikes that we use in our facilities that use electrical stimulation to contract the muscles in the arms or legs in a segmental fashion that represents a specific type of function. Historically, it really hasn't been available for home health.

What we've done through our technology department is take the tablet and the stimulator from one of the cycles and package them into a portable pack that can then go into the home with a home health clinician. Now the patient may not be cycling, but they can continue their electrical stimulation in many different ways and it gives the home health therapist a new piece to work with. We're in discussions with the manufacturer, who has been receptive, about creating this more affordable and portable product.

VIRTUAL REALITY APPS

Brooks has partnered with a software engineering firm that develops virtual reality applications and simulations for workforces. With patients using a virtual reality headset, we've developed or are developing:

- "Brook Saber," based on a popular Oculus game called Beat Sabre, where you're hitting boxes coming at you with two light sabers.
- A wheelchair mobility package, which uses different type joysticks or "goalpost" handles, to navigate a created, simulated space similar to a patient's home. It helps train a patient - in complete safety - to move and look around.
- A driver simulator, with adaptive equipment a patient may need, like hand controls, or a specified brake, or a knob on the wheel. We will be able to test them out on everything that they're doing before they even get into a car.
- A new pediatric team is working on one for children on the spectrum. The VR is in a theme-type park and the therapists can gradually add people or take people away to get the children to experience some new things in a controlled and safe environment.
- A racquetball game, adapted for a person with one arm, with the therapist in control of the ball to make the patient move as desired.

The goal eventually is to have a Brooks Virtual Reality store where games and applications can be downloaded by and for patients. We want to make virtual reality the portable and accessible technology for our patients during and after their rehab.

3D WOUND CARE MANAGEMENT

We're working with a company based out of New Zealand that has developed a 3D scanning camera. It's basically the size of a palm and you hold it over a wound and it automatically detects and projects down lasers on top of the wound and it topographically maps out the wound. So, it can see how deep it is at certain parts, the wound's dimensions, the borders and so on. It goes to the cloud or your electronic medical records. As you take the pictures over time, the technology will graph it out, so you can see everything that's happening with it. This will cut down on the time normally required to document wounds and the wound-care nurse or physician can also log on to the cloud from anywhere to be able to look at and stage the wound.

BERTEC BALANCE SYSTEM

The Brooks Balance Center uses the newest technology from Bertec, providing state-of-the-art virtual reality testing and training for patients experiencing imbalance and/or dizziness. This system allows for the completion of multiple standardized balance assessments, which provide clinicians with a detailed report of the patient's current balance deficits. These balance assessments aide in creating an individualized plan of care to meet the patient's specific needs as well tracking patient progress throughout therapy.

The expanded virtual reality protocols allow for customizable training to target visual and vestibular impairments, which is not possible within the confines of most therapy clinics. The Bertec offers unique training programs such as, navigating through a grocery store or completing balance exercises with real-time feedback. These trainings can be modified and progressed to ensure that each patient is being challenged to their highest potential. This technology ultimately creates a powerful therapeutic tool to help ensure patients suffering from balance and vestibular impairments can achieve their highest level of recovery.



"DR. HOLOGRAM"

The University of Central Florida (UCF) acquired this technology in part through a gift from Brooks. Through an array of cameras and speakers, a person in one location becomes a fully interactive, real-time projected hologram in the target location. "The tech allows students to see and examine the whole patient and pick up on nonverbal cues that could be missed with tools that have a limited view, like a video conference call. It also provides a means for students to be exposed to patients who are immune compromised without posing risk to the patient, while still getting a full view of the patient. Brooks assistive technology specialist, Michael Braun, MSOT, OTR/L, BCPR, recently taught a class at UCF using the hologram technology. He discussed strategies for collaboration between speech-language pathologists and occupational therapists in providing multidisciplinary intervention for individuals who require augmentative and alternative communication.

Great Research Sometimes Starts with a Walk

Lou DeMark, PT, DPT, NCS, is a physical therapist by profession and the Neuromuscular Research Program Coordinator for the Brooks Clinical Research Center, Moving to the south from Scranton, Pa., he first came to Brooks in 2011 to complete a one-year residency program in Neurologic Physical Therapy. At the start of his career, DeMark had little interest in research and fully intended to return home postresidency. Now, in 2021, he is celebrating 10 years at Brooks with an impressive trajectory from clinician to researcher.

Just prior to moving to Jacksonville for his Brooks residency, DeMark attended the annual American Physical Therapy Association's Combined Sections Meeting (CSM), where he came across a research poster presentation that peaked his interest. This particular study team had taken healthy individuals over 65 years old and examined their backward walking speed, forward walking speed and history of falling. The study results showed that backward walking speed was a better predictor of fall risk in elderly individuals than forward walking speed. DeMark was fascinated by these results, but continued on, not knowing that this very presentation would one day become the inspiration to a decade-long research trajectory that would advance the knowledge and science of stroke rehabilitation.

After completing his residency, DeMark began his career at Brooks as a physical therapist on the stroke program of the inpatient hospital. It was there, during the hustle and bustle of clinician life, that he recalled the research presentation that impacted him at CSM just months before.

"National statistics show up to 75-80 percent

of individuals fall at least one time after their

stroke," said DeMark, "Up to 75-80 percent of individuals fall at least one time after their stroke. Within a six-month period, almost half of them fall multiple times. Falls can occur quite frequently and easily after a stroke, especially when taking a step in the sideways or backwards direction. When someone has a stroke, not only can they have difficulty taking steps forward, but they often have greater difficulty taking a sufficiently large step backwards needed to open a door or refrigerator, for example and maintain their balance. So, I thought, what if we train people to walk backwards right

after their stroke? What if we do it every single day? Will it help improve their forward walking? Will it help improve their balance and decrease their risk of falling? Those were the questions I started asking myself."

DeMark admits that, at the time, he had never assessed backward walking when evaluating his patients and though

> exposed to research in school, had very limited training in conducting a research study. However, determined to improve his patients' outcomes. he decided to conduct a small case series during his neurologic residency at Brooks. Over the next three months, DeMark identified eight people he felt would be good candidates for his study. To start off, each participant underwent a series of standardized assessments that looked at their forward walking speed, backward walking ability, balance and confidence. DeMark then provided a backward walking training intervention to the participants for 10 consecutive days. Afterwards, he facilitated the same assessments from before the intervention to measure any changes. The results of this case series are now available as a published manuscript in Topics in Stroke Rehabilitation (DeMark et al, 2019).

> "I had really great results on almost all eight of those people," said DeMark. "So, at that point I went to my residency program director and said, 'I think I'm onto something. I think this is pretty good, but I'm not sure of the next steps, I think we should do a randomized controlled trial.' I had done a literature review and there were a couple studies on backward walking training with people well after their stroke occurred, but there were no studies on backward walking training within days of an acute stroke, which was the question I was posing."

DeMark was connected with expert researcher. Dorian Rose, PT, PhD, who has had a longstanding relationship with Brooks since 2005. Dr. Rose is a Research Scientist within the Brooks/UF-PHHP Research Collaboration

with a focus in adult neurorehabilitation, Research Associate Professor in the Department of Physical Therapy at the University of Florida and Research Health Scientist at the Malcom Randall VA Medical Center in Gainesville, Fla.

"Here I was, three months into my position at Brooks, on the phone for the first time with a world-class clinician and



"Here I was, three months into my position at Brooks, on the phone for the first time with a world-class clinician and academic researcher (Dr. Rose). I explained to her what I did, talked about some of my patients and results and by the end of a two-hour call, we were developing a protocol for a new study right then and there."

- Lou DeMark, PT, DPT, NCS



Backward walking training with an individual post-stroke. Assistance provided at the hips for weight shift and a second person for balance.

academic researcher (Dr. Rose). I explained to her what I did, talked about some of my patients and results and by the end of a two-hour call, we were developing a protocol for a new study right then and there," said DeMark.

In the next 10 years that followed, Drs. DeMark and Rose (along with collaborating researchers Dr. Emily Fox, Dr. David Clark and Dr. Peter Wludyka) launched a series of increasingly larger, more highly funded and complex studies:

- A Backward Walking Training Program to Improve Balance and Reduce Falls in Acute Stroke: A Feasibility Study (2012-2014), \$25,000 grant from Brooks Community Benefit. This was the Brooks-funded study born from the original phone call between Drs. DeMark and Rose. Results from this study showed that the Backward Walking Training Program sustained better improvements in walking speed and balance and confidence compared to a standard balance training program.
- A Novel Strategy to Improve Gait and Falls Self-Efficacy Post-Stroke (2015-2017), \$154,000 grant from the American Heart Association. The purpose of this study was to compare the efficacy of two rehabilitation approaches on gait speed: a novel, experimental

intervention that uses backward walking as the primary training modality and a standard of care comparison intervention of forward walking. Individuals randomized to the backward walking group presented with greater forward walking speed, greater backward step length during backward walking (important for mitigating falls) and greater balance self-efficacy than those who received forward walking training.

- A Novel Strategy to Decrease Fall Incidence Post-Stroke (2016-2021), \$1,200,000 grant from the Veterans Affairs Office of Rehabilitation, Research and Development. Falls are a costly complication for veterans with stroke as they lead to an increased incidence of fractures, depression and mortality. New strategies are needed to help veterans post-stroke regain their ability to safely walk without increasing their risk of falling as well as readily identify those who are a fall risk. The purpose of this study was to test a novel gait training strategy, backward walking, to improve gait speed, improve balance and decrease fall incidence post-stroke. This study is in its final phases at Brooks with study results pending.
- A second \$1,300,000 grant funded by the Veterans
 Affairs is set to begin fall 2021. The study will build
 upon the results of "A Novel Strategy to Decrease Fall
 Incidence Post-Stroke" (2016-2020), now comparing two
 different doses of backward walking training, 18 sessions
 versus 27 sessions, for maximizing gains in forward and
 backward walking speed and dynamic balance poststroke. Researchers will also assess brain activity via
 magnetic resonance imaging (MRI) before and after
 training interventions to determine if structural and
 functional brain measurements can predict degree of
 response to backward walking training.

In addition, a first paper, "Backward Walking to Improve Balance and Gait in Acute Stroke: A Pilot Randomized Controlled Trial," was published in the prestigious Journal of Neurologic Physical Therapy in 2018. The article won the journal's "Golden Synapse" award, which recognizes the most outstanding article published each year.

Brooks Research is driven by a mission to generate new knowledge and integrate the latest research discoveries into clinical practices that improve patient outcomes and quality of life. Today, because of the cutting-edge stroke research that snowballed from one clinician's research question - you can now spot clinicians at Brooks incorporating backward walking into their evidence-based practices in order to improve their patients' walking speed, balance and confidence post-stroke.

Culture of Education



Brooks IHL and the Cutting Edge of Professional Development

The Brooks Institute of Higher Learning (IHL) has developed over the years into a world-class provider of cutting-edge, evidence-informed practice and professional development. Hundreds of rehabilitation professionals within Brooks and from across the country have excelled through the IHL's accredited residencies and fellowships, while thousands more have achieved their goals through its continuing education units, certification reviews and exam preps.

The IHL has a comprehensive, unparalleled scope and depth unique to rehabilitation systems. An obvious guestion may be, why create such an organization - what does it ultimately mean to Brooks? It starts with the fact that residency and fellowships are not required for physical and occupational therapists in the way they are for physicians. When a physical and occupational therapist graduates from school, they are a generalist. The programs that the IHL and its highly skilled faculty offer allow Brooks to help people specialize - thereby becoming more efficient and more effective.



Bob Rowe, PT, DPT, DMT, MHS, FAAOMPT, is IHL's executive director. "What the IHL has established with all our educational offerings is the Brooks standard of practice. We're developing practice patterns that are in alignment with national established clinical practice guidelines. Brooks truly embodies the concept of being an evidencebased practitioner. We train the

residents and the fellows to be evidence-based - to search out, to go through the literature and, when appropriate, integrate the literature into the management of the patient. This is unique."

The IHL also trains residents and fellows to employ a consultative practice model - a combination of the evidencebased practice and asking clinical questions to gain expert opinions. Residents and fellows are encouraged to talk about what they've read, ask questions on how it relates to their patients and get opinions and insight from others.

Sara Cristello, PT, DPT, OCS, FAAOMPT, is IHL's director of clinical operations. Residents and fellows will mentor other clinicians to ask questions. It creates an environment of learning that's a big part of our culture.

In addition to those already working at Brooks, residency and fellowship candidates come from all over the country. Often, these candidates will have every intention of returning home

ATTRACTING (AND KEEPING) TALENT

The Brooks IHL has graduated 243 PTs and OTs from across the country in its residency and fellowship programs, covering eight specialties. 116 have remained and are practicing at Brooks.

A HIGHER RATE OF ACHIEVEMENT

Around 3% of PTs nationally have graduated from a residency; at Brooks, that number is 44%

Around 1% of PTs nationally have completed a fellowship; at Brooks, that number is 8%

Around 15% of PTs nationally have earned a board certification; at Brooks, that number is 47%

SOUGHT-AFTER EXPERTISE

At any one time, 35 to 40 Brooks clinicians share their knowledge and experience serving as adjunct faculty members at local universities.



afterward, but instead make a new home and stay with Brooks.

"It's a credit to Brooks how many people stay," said Cristello. "They came for a residency or fellowship and have now been here 10 or 15 years. The ones that do leave become tremendous ambassadors for us - they still love Brooks and the training. They always feel a level

of commitment and so we're excited to see them go off and do great things.

"And that's the real theme." said Rowe. "Providing the best care, best services, best management possible to every patient every day. That's what the IHL is all about. I'm proud of the learning culture we've created within Brooks. We want to keep pushing the envelope to make sure we're doing it better than others and giving our patients the best care possible."

Coleman Watson

From Stroke Patient to U.S. Senate Candidate

As 2020 started, the sky was the limit for Coleman Watson of Orlando, Fla. An attorney originally trained as an engineer, Watson was growing his successful firm specializing in intellectual property and technology issues, including patent and trademark litigation. He and his wife were raising two children and enjoying life in the Orlando community.

On Feb. 12, 2020, Watson suffered what was identified as a "cryptogenic" stroke - meaning that despite all testing, the cause of the stroke couldn't be determined. Regardless of the stroke's origin, its seriousness and damage were clear from the outset Watson said "Lalmost died - Lhad a massive stroke that day. It changed my entire life, forever. I was only 41. I thought that only older people could have a stroke. But anyone can. When my stroke happened, I couldn't move my body. It just stopped. Then, I lost my ability to talk."

Coleman spent five days in an acute care hospital before returning home. He had trouble walking, using his right hand and - perhaps most serious - developed sever aphasia. As defined by the National Aphasia Association (NAA), "Aphasia is an impairment of language, affecting the production or comprehension of speech and the ability to read or write."

It's very important to note that aphasia does not affect intelligence - just communication. Jodi Morgan, CCC-SLP, is the manager of Brooks Rehabilitation Aphasia Center (BRAC). She has described aphasia in this way: "Imagine you're suddenly dropped into another country. You can't speak the language - you can't read it, write it or understand it when it's spoken to you. Yet, you still have your IQ, you're still the same smart, educated person you were before. You just cannot communicate."

The BRAC is one of only a few of its kind in the U.S. Run by licensed speech-language pathologists and other specialists, the Center offers a community aphasia program, an intensive comprehensive program (ICAP), family training and support groups. The community program is two to three days per week, five hours per day and provides coordinated group activities designed to help with re-engagement with communication and in life. The Intensive Comprehensive Aphasia Program (ICAP) runs Monday through Friday, 25 hours a week for six weeks. The ICAP provides individualized therapy, specialized for the person with aphasia and their family.

During the months following his stroke, Watson twice attended BRAC's ICAP program. As Watson recovered his speech and writing abilities and learned more about stroke and aphasia, he realized the purpose for his life was to use his knowledge and his skills to advocate for those with disabilities on a larger platform - so he announced his candidacy a Florida U.S. Senate seat. His personal vision includes making access to affordable, quality healthcare a human right and removing barriers to equal opportunities for persons with disabilities.



"Lalmost died - Lhad a massive stroke that day. It changed my entire life, forever. I was only 41. I thought that only older people could have a stroke. But anyone can. When my stroke happened, I couldn't move my body. It just stopped. Then, I lost my ability to talk."

COMMUNITY IMPACT REPORT

The Brooks Health Foundation supports the mission of Brooks Rehabilitation by investing in community activities that prevent disabilities and meet the needs for persons living with a differing ability. Through research, education, charity care and community-based programming, the Brooks Health Foundation facilitates positive change in our community so that recovery after a traumatic injury or illness is possible. Thanks to our community partners and the generosity of supporters, we are able to provide low to no cost community programming to meet the growing physical, social and mental health needs of those living with differing ability in our community.

COMMUNITY PROGRAMS PROVIDE VIRTUAL PROGRAMMING

Amid the COVID-19 pandemic, social isolation and mental health for our community is of paramount concern. The leadership of our Community Programs continued to make us proud of the collaborative efforts necessary to provide daily virtual programming to our participants, members and community so they can continue to accrue the health benefits of physical, social and mental well-being. Together, the virtual programs served over 370 unique individuals with over 3,231 visits during the peak of the city-wide shutdown from April to June 2020.

- NRC & Wellness Created and edited 33 YouTube exercise classes for participants/members to access at any time
- Adaptive Sports and Recreation Provided 11 weekly virtual sessions, with nine unique offerings including activities that have not previously been offered such as: Tai Chi, Meditation, Improv, Social Hours and Zoom Dance Parties
- Pediatric Recreation Launched five virtual classes and created a library of pediatric-specific online classes available for public use on the Brooks YouTube channel
- Aphasia Center Offered various interdisciplinary groups
 5-6 times a week to people with aphasia including language groups, mental health counseling groups (ways to conquer depression during COVID-19), music therapy groups, Happy
 Hours and Toastmasters
- Brooks School Re-entry Honored high school seniors served through BSRP with senior picture collage
- Motion Analysis Center (MAC) Finalized the development
 of two clinical and community assessment programs
 (Amputee and Performance Through Prevention Athlete
 Assessment) and served individuals from 14 cities and
 10 counties within Florida and Georgia. Additionally, the
 MAC initiated a clinic outreach plan by providing modified
 assessments to the patients at the Orange Park, Fla.
 outpatient clinic for those who are unable to travel to the
 MAC due to COVID-19.



BROOKS ADAPTIVE SPORTS AND RECREATION (BASR)

- 928 participants served in Jacksonville and Daytona
- 12 unique visits per individual

One of the most comprehensive adaptive sports programs in the country, providing fun and fitness for individuals living with physical disabilities. The program provides opportunities for fun, fitness and friendship to individuals of all ages and abilities living with physical and/or visual disability. No experience is required and there is no cost for participation with all equipment, instruction and coaching provided free to all individuals.



BROOKS REHABILITATION APHASIA CENTER (BRAC)

- 81 total participants served (58 individuals served in Jacksonville; 9 individuals served in St. Augustine and 14 individuals served on Zoom groups)
- 34 W.H.E.E.L Scholarships
- 14 Intensive Comprehensive Aphasia Program (ICAP) participants

The Aphasia Center provides comprehensive support for participants affected by aphasia due to stroke, traumatic brain injury, brain tumors or other neurological disorders. The Aphasia Center offers two programs, including a community track and a six-week. Communication training, support and education is available for families and people with aphasia.



PEDIATRIC RECREATION

· 203 individuals served

The Brooks Pediatric Recreation Program provides youth with disabilities meaningful and accessible recreation opportunities that offer social connection, family empowerment and community integration to enhance quality of life. We offer both sport and recreation programs year round through weekly classes, monthly activities, family-friendly special events.

RESEARCH

- 156 newly enrolled participants
- 740 individual study visits
- 36 active studies
- 45 state/national presentations by Brooks personnel
- 27 publications by Brooks personnel
- 55 Brooks personnel involved in research

The Brooks Clinical Research Center is devoted to conducting innovative research studies that will expand the knowledge and science of recovery. Please see article on p. 18 for more information about research studies at Brooks.



NEURO RECOVERY CENTERS (NRC)

• 388 individuals served: 276 in Jacksonville and 112 in Orange Park

The Neuro Recovery Centers offer specialized equipment for customized rehabilitation during both formal therapy and after traditional therapy has been completed.

WELLNESS

- 420 individuals served
- 18.580 visits

Experts from Brooks Rehabilitation have teamed up with the First Coast YMCA to offer an individualized and supervised exercise program for Stroke and Brain Injury survivors, as well as those battling Parkinson's disease and Multiple Sclerosis.

BROOKS BRAIN INJURY CLUBHOUSE

- · 88 Individuals served
- 26 job placements

The Brooks Brain Injury Clubhouse is a full-time day program that provides for the long-term recovery needs of individuals who have experienced an acquired neurological/brain injury. It expands the system of care provided by Brooks Rehabilitation and serves as a bridge to community and vocational re-integration.

MOTION ANALYSIS CENTER (MAC)

• 170 patients served

The Brooks Motion Analysis Center (MAC) is a specialized clinical and research assessment facility focused on gait and movement impairments in people of all ages. Through the use of innovative technology, clinical examination and biomechanical analysis, our purpose is to advance rehabilitation science and clinical practice leading to improved recovery and performance in individuals with neurologic and orthopedic impairments.



BROOKS SCHOOL RE-ENTRY PROGRAM (BSRP)

- 140 individuals served
- · 41 school districts served

Brooks School Re-entry Program (BSRP) provides a continuum of school transition and support services for children and adolescents at Brooks Rehabilitation Hospital. Our School Re-entry specialists serve as liaisons, collaborating with the child's family, their medical team and their school in order to maximize academic success and ensure a smooth transition back to school. Whether referring a toddler for early intervention services, helping a college student obtain accommodations, or anything in between, BSRP provides a customized approach to each patient's school re-entry.

Dry Needling

Treatment to Break Up Hard Muscle Tissue





Though the name may sound a little ominous, "dry needling" is an effective form of therapy that is growing in popularity and usage. It involves the use of needles to stimulate and break up knotted or hard muscle tissue.

Brooks Rehabilitation's Jennifer Bruck, PT, DPT, uses this therapy on her patients and is also helping to train other Brooks therapists. "In a typical dry needling session, we palpate and localize a trigger point, which is some sort of muscle dysfunction," said Bruck. "So, typically we find a tightened muscle tissue area, known as a taught band. Usually in the middle of that is the trigger point. We use the needle to help disrupt the muscle internally. I'm essentially going in and breaking it up so that it calms down."

It's called "dry" because the needle isn't injecting a fluid - unlike, say, a needle used to inject a vaccine. The sole purpose of these dry needles is to treat the trigger points. Bruck explains that trigger points can be "active" or "latent." Active means that the trigger point is actively causing pain, while latent is not causing pain currently, but can be set off to generate the pain. In addition to pain, trigger points can affect the motor patterns so that muscle firings or mechanics are not normal. Trigger points can be superficial or deeper: Bruck focuses on deeper, intramuscular dry needling.

For these deeper, intramuscular trigger points, dry needling can be guicker and more effective than traditional physical therapy treatments. "With a lot of patients, you don't need to do dry needling every time they come in," said Bruck. "You can help clean up some of that trigger point in five or six visits and then they don't need it anymore. This is especially true if it's very localized. If you have a muscle that has that one spot that's just super, super hot on a patient, it can help calm it down a lot and more quickly than manual therapy."

Dry needling side effects in general are just like any other needle stick: There's the standard risk of bleeding, bruising, or infection. "The most typical side effect is going to be soreness," said Bruck. "You're going to feel like you had a really good muscle workout. Because essentially what I'm doing is fatiguing out that muscle to make it relax."

An obvious question about dry needling is its comparison to acupuncture. While both disciplines use the same type of filiform needle (solid, sterile and single use), the similarities end there. "It's incredibly different from acupuncture," said Bruck. "With dry needling, based on Western medicine, you're going into a specific part in the muscle that's dysfunctional. Whereas with acupuncture, based on Eastern medicine, there's different points and meridians throughout your body that you're trying to use the needle superficially, not intramuscularly, to help assist with the flow of energy, or 'chi.'"

Currently, training and continued competency are handled by each state, e.g., the Florida Board of Physical Therapy. Bruck received thorough training in dry needling, including a very extensive knowledge of anatomy and physiology. Until recently, there were only a handful of therapists at Brooks, like Bruck, who had met the state requirements.

However, 25 more Brooks clinicians have finished their instructional coursework and have completed, or are in the process of completing, the supervision phase of their training. "We're really excited about that," said Bruck. "I think that as dry needling becomes more popular and starts to gain steam with professionals and with the community, more people will want to take advantage of its benefits."

Adriana Fiorilo

A Stroke at 23 Won't Stop Adriana's Veterinary Dreams



"Adriana is truly an exceptional person. She was an incredibly hard worker every single day no matter what challenging activity I threw her way."

- Sarah Hughes, M.A., CCC-SLP

Adriana Fiorilo knew from an early age that she wanted to be a veterinarian. She graduated from the University of Florida with a bachelor's degree in biology and a minor in sociology in 2020. Due to COVID-19, her graduation was delayed a year and she took a job as a veterinary technician to gain experience. She finally walked in her graduation ceremony on May 8, 2021, with her mother, father, grandmother and aunt watching proudly.

However, the next day as Adriana celebrated Mother's Day with her family, a headache that had come on that morning became increasingly worse. She began vomiting and went limp. A CT scan at the ER revealed a stroke. Her neurosurgeon described it as a "right frontal developmental venous anomaly which thrombosed, causing venous ischemic stroke with subsequent hemorrhagic conversation." The 23-year-old, who seemed healthy a day earlier, was now paralyzed on the left side of her body and had limited communication abilities.

Adriana spent an uncertain and precarious month in ICU before she was moved to a regular room. She was barely able to give thumbs up, squeeze her parents' hands and wiggle her toes. "Her neurologist recommended Brooks Rehabilitation because he said it was the best in Florida. But we live in Miami and thought surely there would be some

place closer to home. The more we researched, the more Brooks was mentioned. Her aunt saw a story about another student that was hit by a car and how well he recovered and that was the deciding factor for us," said Ileana and Ronald Fiorilo, Adriana's parents.

Adriana arrived at Brooks Rehabilitation Hospital - University Campus (BRH) on June 23, 2021, hardly able to lift her head. However, in the six weeks at BRH that followed, her fighting spirit and hard work, paired with the expertise of her Brooks rehabilitation team, made for tremendous improvement.

Physical therapist Monica Lim, PT, DPT, NCS, said, "Adriana initially needed three people to assist her to walk six feet with a rail for support. By discharge, she was able to walk 200 feet with someone just holding onto her for safety."

Sarah Hughes, M.A., CCC-SLP, Adriana's speech therapist, helped her say her first words and swallow so she could eat. "Adriana is truly an exceptional person. She was an incredibly hard worker every single day no matter what challenging activity I threw her way. Seeing her advance from tube feedings to a feast of pancakes every morning was a testament to her work ethic and determination," said Hughes.

Occupational therapist, Tracy Ogilvie, MOT, OTR/L, said, "Adriana progressed significantly in all aspects of her self-care





tasks, vision, balance and upper extremity functional use. I am so proud of all that she has accomplished with us at Brooks."

During her recovery, her parents never left her side. "Her family was supportive and with her every step of the way, even helping with 'homework' we had given her for the evenings after therapy," said Lim. Ileana and Ronald stayed at Helen's House, Brooks' family housing, across the street from the hospital during Adriana's inpatient care. Ken Rudd, Helen's House manager, shared, "They are a humble and hopeful family who lost their joy, until Adriana's progress at Brooks allowed them to regain it."

After her six weeks at BRH, Adriana was discharged and immediately started at the Brooks Brain Injury Day Treatment Program (BIDT). The BIDT program offers therapy to help patients with brain injuries and strokes transition from an inpatient setting to their home. Brooks created BIDT to

help individuals continue to regain physical abilities while improving cognition, thinking, communication and social skills, as well as emotional ability.

Cassandra List, MD, is medical director for stroke at BRH and Adriana's physician. "Adriana's case is one I will remember forever. She was a young, healthy woman with a tragic, unfortunate event but also a lot of hope. She made daily progress in her recovery. Her quick transition to the highintensity BIDT program will continue to push her at the pace she needs."

Adriana started the program in a wheelchair because she felt she needed it, but after a month, she was walking on her own. Adriana will continue in the BIDT program for several more weeks before returning home with her parents to Miami. Although therapy dog Starke was a nice substitute at Brooks, she is most looking forward to seeing her own dog and getting her life back on track to fulfill her dreams of becoming a veterinarian.

"We're so glad we chose Brooks. The doctors, nurses, therapists, CNAs - everyone has been so helpful. We're blessed seeing how much Adriana has improved and we appreciate everyone involved in her recovery," said Ileana and Ronald.





3599 University Blvd. S. Jacksonville, FL 32216

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