

The ANGELS Journey



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WSC 2024



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Come fly with us

Welcome

to the World Stroke Conference edition of the Angels Journey, in which we share inspiring stories from our global community.



If you are reading the print edition of this Angels Journey, chances are that you got on a plane and flew to a foreign country. For those who love to travel, or who must travel for work, a question that I guess we'd rather not think about is what might happen if we experienced a health crisis a long way from home. One of our team members recently witnessed this terrifying scenario on a flight from Frankfurt to Jakarta, when their flight had to be diverted to Mumbai after a young male passenger suddenly got seriously ill. When she told us the story, it led to a debate about what would be worse – getting seriously ill on a plane or waking up in a hospital in a country you don't know, and that you never intended to visit.

A couple of years ago I was present at an event where a speaker advised the audience that anyone over the age of 60 who was deciding on a holiday destination should make very sure it was close to a comprehensive stroke center. This may be sound advice, but what if the difference in likely outcomes wasn't determined primarily by the type of building or facilities that were available?

I am starting to realize that a more important predictor of good outcomes are the people who make sure that the best possible care is available inside the buildings.

Wouldn't it be great, then, if we could create a community made up of these people – the strivers for excellence and drivers of change? Then instead of having to worry too much about the resources that they did or didn't have, all we would have to do is support the change makers. And once they were well enough equipped, send them out to all the corners of the globe to be the safe hands for those patients who were experiencing the worst day of their lives.

This may sound a like some fictional narrative fit for a Dan Brown novel, but after you read the stories in this edition of the Angels Journey you will realize that that is exactly what is happening in the world of stroke care. This community – your community, the Angels community – is now a community of more than 220,000 likeminded professionals with a single goal, which is to give stroke patients a second chance at life. What you will also realize is that this community is growing and expanding. And the good news for travelers as for locals is that

the community is now spreading even to places that might not have made it onto our bucket lists if proximity to a fancy hospital influenced our choice.

From the shores of the Brahmaputra River in India to a small Malaysian town that can only be reached by boat. From an island in the Philippines to sunny South Africa, from Pakistan to Oman. Even in small countries like North Macedonia and in remote communities in Colombia you will find these champions from our community.

This Journey is filled with examples of how this community is making the whole world **safe for stroke**. And if you thought only doctors were riving the change, allow yourself to be inspired by the nurses and paramedics whose stories are also told here.

We have always referred to Angels not as a campaign or a project, but as a movement, because a movement is something that, as it gathers momentum, becomes unstoppable. Not even a full-scale war can stop a movement as is illustrated by our FAST Heroes team in Ukraine.

What drives our movement is the people who make up this amazing community. Selfless people who mentor those that are growing,

The Angels Initiative

The Angels Initiative is a healthcare intervention dedicated to improving stroke patients' chances of survival and a disability-free life. Since 2016, an estimated 16 million patients have been treated in over 8,000 Angels hospitals worldwide, including more than 1,400 new stroke-ready hospitals established across the world with the help of Angels.

Find out more by visiting angels-initiative.com

and who stand together with a common purpose, as is beautifully illustrated in our section on this year's South American mentorship program.

Traveler or not, please enjoy this journey through our community and the encounters with people whose safe hands are spreading their care across the globe.



Jan van der Merwe
Co-Founder & Project Lead
– The Angels Initiative

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One patient, one miracle at a time

Angels consultant Nilotpol Kumar shares a beautiful story from Assam in northeastern India that showcases the excellent work done at Hayat Superspeciality Hospital in Guwahati.

The wake-up call

Ashok (*), a schoolteacher, was sipping his morning tea and reading the *The Statesman* as was his morning ritual. Like every Assamese, with his morning cup of chai and the daily newspaper he imbibed the essence of the city's vibrant culture which, like a kaleidoscope of traditions, had woven itself into the fabric of his being.

The mighty Brahmaputra River, with its sinuous flow, was both a silent witness and a constant companion. But this morning was different from all the others. When Ashok sipped his chai, he felt his left arm grow

heavy, and his speech, once eloquent, stumbled like a hesitant dancer.

The world around him was swirling in hues of nostalgia; the sun's rays filtered through the leaves, casting dappled shadows on the veranda, but Ashok was not enjoying it any longer.

He recognized the signs – the intruder, swift and uninvited, had breached the citadel of his body. A stroke. The world became blurred, and time hung suspended. In that moment, the Brahmaputra seemed to whisper secrets, and the city held its breath. The city of Guwahati, with all its memories and mysteries, stood witness to Mr Ashok's struggle.



"Their dedication carved pathways through darkness. We owe them our second chances." — Deputy superintendent Dr Pragyan Kalita

The race against time

In the heart of Guwahati, nestled amidst the bustling streets and verdant hills, stood Hayat Superspeciality Hospital – a beacon of hope for stroke patients. The hospital's reputation was built on excellence, and its stroke management team was second to none. Their meticulous preparation had transformed the hospital into a stroke-ready fortress armed with cutting-edge technology and the latest protocols.

At Hayat, the stroke team, led by Dr Vineet Todi, sprang into action.

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Beyond medicine, their
work felt akin to magic.
Both smiled.

”

When Ashok in such a critical condition was whisked to the emergency department, symptom-to-door time exceeded 150 minutes. The activation of the Stroke Code set the wheels in motion, and Ashok was rushed to the CT scanner. His NIHSS score was alarming but hope lingered. The stroke team strived relentlessly to save Ashok.



Dr. Vineet Todi and his team at Hayat Superspeciality Hospital.

Within the sterile confines of the CT room, Dr Todi meticulously examined the scans and other reports. The stubborn clot posed a formidable challenge, yet without losing hope the team persisted towards recanalization. Thrombolysis commenced in the CT room after which Mr Ashok was swiftly transported to the dedicated stroke unit and the post stroke protocols initiated. The nursing team in the stroke unit followed the FeSS protocol and monitored every step of Ashok's progress.

Ashok's wife was trembling in the waiting area, silently praying for her husband's recovery. The prayer was heard; Mr Ashok's recovery proved remarkable. The stroke team followed a rigorous protocol right up to discharge to ensure that Ashok's life was given a second chance.

The story now repeats itself time and again and many patients like Ashok

Beyond medicine, their work felt akin to magic. Both smiled. And so Hayat Superspeciality Hospital continued its stroke journey – one patient, one miracle at a time.

Empowering transformation: Angels' ongoing impact on stroke management

In the wake of the remarkable strides achieved by the stroke team at Hayat Superspeciality Hospital, and bolstered by the unwavering support of Angels, a new dawn emerges. Their collaborative efforts have not only redefined stroke management but also breathed hope into lives that had teetered on the precipice of despair.

The hospital's leadership, recognizing the seismic change wrought by this synergy, now stands resolute in

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They're driven by a singular purpose: to grant second chances at life.

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MS, is a champion for change. Under his leadership, the marketing team of Hayat have started community awareness programs for stroke as an emergency. Their advocacy for using ambulance services instead of personal vehicles, has already lead to a decrease in personal vehicle arrivals – another testament to their collective dedication.



The stroke team at Hayat Superspeciality Hospital celebrating their WSO Angels Diamond Award

are being rushed to the Hayat Hospital where the team under Dr Todi treats every patient with the same passion and care. Their commitment to excellence is monitored through the RES-Q registry and was revealed when the hospital received its first Gold Award for stroke care in Q1 of 2023.

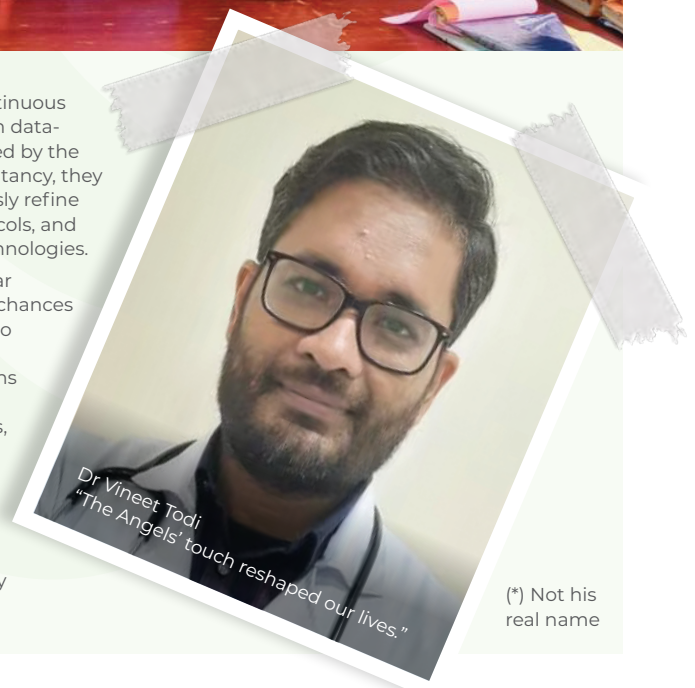
A diamond in the rough

In Q2 of 2023, Hayat reached new levels of excellence, earning the prestigious Diamond Award. Angels consultant Nilotpol Kumar, walking through the hospital corridors, encountered Dr Todi. Tears welled up in the doctor's eyes as he said, "I was treating before, but you truly helped in turning the tide and empowered the team to give stroke patients a second chance."

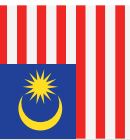
their commitment to continuous improvement. Armed with data-driven insights and fortified by the Angels' world-class consultancy, they forge ahead to continuously refine processes, optimize protocols, and harness cutting-edge technologies.

They're driven by a singular purpose: to grant second chances at life, and promise hope to countless future Ashoks. Through their contributions they strive to save an increasing number of lives, positioning themselves as a leading organization in the field of stroke care.

But the commitment doesn't end there. Dr Pragyan Kalita, the Deputy



(*) Not his real name



No river wide enough

Whether by river or by road, the residents of Kapit in Malaysia faced an arduous journey to the nearest stroke-ready hospital. But then a young doctor whose own life had been profoundly affected by stroke wrote a different ending for this story. Angels consultant Radha Malon reports.



CAN you imagine the fate of a stroke patient if the nearest stroke hospital was only accessible by water transportation and the journey by express boat took around two-and-a-half hours?

Until not so long ago this was not just an imagined scenario but a harsh reality for the residents of Kapit in Malaysia.

Kapit is the largest division in Malaysia making up almost one-third of the total land area of Sarawak, the largest state in Malaysia. It is a mountainous region and almost 80 percent of the territory is covered by dense primary forests.

Its population is primarily composed of the indigenous Iban ethnic group. Younger adults often migrate to cities in search of better job opportunities, leaving behind an older population that continues to engage in traditional economic activities such as agriculture, fishing, and timber work. Many of the locals still live in traditional longhouses deep in the forest, and have limited access to formal education.

The majestic Rajang River, the longest in Malaysia, flows through Kapit, shaping its landscape and way of life. Before the road was built, express boats were a lifeline; they were the only way to travel to nearby towns. These sleek, narrow vessels, humorously dubbed "flying coffins" due to their design and seating arrangement, remain an iconic sight on the river.

In late 2020, Kapit was finally connected by road to the city of Sibu where the referral hospital for central Sarawak is located. This opened up new possibilities for travel. Although some areas, like Belaga and Punan Bah, still rely heavily on river transport, most residents are no longer tied to the express boat schedule and can travel between Sibu and Kapit using various

modes of transport such as vans, buses, and cars.

But while the two towns are just 160 km apart, the journey can be quite the adventure due to the hilly, single-lane road. Heavy vehicles often obstruct the path, causing delays and turning the trip from Kapit Hospital to Sibu Hospital into a three-hour expedition.

Healthcare remains a challenge as Kapit Hospital is the only hospital in the division. For residents living in the very remote parts of the division, reaching medical care can mean a grueling six-hour journey.

Official records put stroke incidence in Kapit at about 30 cases per year but the actual number is likely higher due to low awareness and a lack of knowledge about stroke symptoms. Many residents are more inclined to seek help from traditional healers within their community rather than make the long trek to hospital. But the situation changed dramatically in April 2024 with the inception of a stroke service at Kapit Hospital.

The journey began at the start of 2024 when a dedicated physician,



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I was more than ready to **support the hospital** with the essential resources and tools to **transform stroke care** in this remote town.

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Dr Chai Siew Yap began setting up a multidisciplinary stroke team and stroke protocol for his hospital. His project enjoyed the support of the hospital director, Dr Francis Lee Ngie Ping, and he received guidance from a visiting neurologist from Sibu Hospital, Dr Benjamin Ng Han Sim.

Dr Chai, who is originally from Pusing in Perak, Malaysia, chose a career in medicine under the influence of his sister, who is now a paediatrician. But it was his personal battle during his adolescent years with Ewing's sarcoma, a rare and aggressive form of cancer, that destined him to become a committed and compassionate doctor.

While working as a junior doctor far away from his hometown, he received the news that his mother had been diagnosed with vascular dementia, a condition caused by stroke. Watching his mother's memory slowly deteriorate until she could no longer recognize her own son, left an indelible mark on his heart.

Just as Dr Chai was settling into his role as an internal medicine specialist at Kapit Hospital, tragedy struck again when his father suffered a debilitating stroke, leaving him paralyzed and unable to care for himself. These profound experiences only strengthened Dr Chai's determination to make a difference and fueled his resolve to establish a stroke thrombolysis service at the hospital. When Kapit Hospital finally received a CT scanner in February 2024, nothing more stood in his way.

The key connection between Kapit Hospital and Angels Initiative was made through Dr Benjamin of Sibu Hospital where I was consulting at the time. Although I had never heard of Kapit, I was more than ready to support the hospital with the essential resources and tools to transform stroke care in this remote town.

During my first virtual call with the hospital stroke team, I learned that they already had a stroke pathway in place, which was a promising start.

I suggested conducting a stroke simulation to provide a controlled environment for the team to practice and perfect their response to stroke emergencies. They were enthusiastic about the idea and we agreed on a date for the simulation.

Meanwhile, to kickstart community awareness in Kapit, I sent stroke awareness buntings and brochures to the hospital via courier.

Kapit Hospital reached a medical milestone within the first week of launching their stroke service. The first patient treated with thrombolysis by the newly minted stroke team was a 101-year-old gentleman who happened to be the grandfather of one of the nurses. Despite having lived for over a century, he'd been active and independent before the stroke. He arrived at the hospital 2 hours and 40 minutes after experiencing weakness. His NIHSS score upon admission was 11, improving to 9 at discharge, with a corresponding MRS score of 4. He is currently undergoing outpatient stroke rehabilitation.

When the date of the stroke simulation arrived, I took a two-hour flight to Sibu, followed by an early-morning trip to Kapit the next day. I hired a taxi for the two-and-a-half-hour drive, prepared with motion sickness medications to handle the windy and hilly roads. Although the driver was a local and familiar with the road, the many twists and turns within the dense forest demanded his full attention.

Upon arrival in Kapit, I was warmly greeted by a hospital team eager to start their stroke simulation. In the simulation scenario, the "patient" was transported via ambulance. The hospital was prenotified and the stroke team was ready when the patient arrived. Five minutes were sacrificed to convey the patient to the CT scan in a different block, and once the decision had been made to treat, the patient was transferred to the ICU (in a different block, on a different level) for

treatment to commence.

During the discussion that followed, we talked about ways to overcome these obstacles – including such simple remedies as sending someone ahead to call and hold the elevator to eliminate waiting time.

The return journey, another two-and-a-half hours on the same windy roads, provided ample time for reflection. Despite the physical toll of the trip, I knew I was part of the mission of bringing specialized care to this underserved region nestled deep inside Sarawak.

Since my visit Kapit Hospital have already reduced their door-to-needle time from 60 to 50 minutes. They have prioritized rigorous and ongoing staff training to ensure each team member possesses the expertise and confidence to independently identify stroke patients, initiate stroke protocols, conduct NIHSS assessments, interpret CT scans, and administer the thrombolytic drug. They are also committed to expanding their community outreach to enhance awareness and encourage proactive health-seeking behaviors.

The journey of transforming stroke care in Kapit has just begun, but it already stands as a beacon of hope and a model of excellence for other regions to emulate. The strides made in such a short period are a powerful reminder that with dedication and the right resources, we can change the fate of stroke patients for the better, one community at a time.



Dr Chai with his wife Dr Lim Siew Ling, and their baby boy Owen Chai Ting Xuan.



Breakthrough in Bataan



A "vial of hope".

Edralyn Lapid-Paraguison is a neuroscience unit nurse at Bataan General Hospital and Medical Center in the Philippine city of Balanga in Bataan province. She shares a heartfelt story filled with gratitude about the hospital's desire to improve their stroke care and their ultimate success.

"He who does not know how to look back at where he came from will never get to his destination."

These words, passed down from our national hero Dr José P Rizal, come to my mind as we reflect on our journey towards our first WSO Angels gold award.

The beginning

Once, we were not able to handle strokes. Not everyone has the capability and the courage to lead the way and make a change. It was not until the right day came that someone sent an angel to shake things up.

It all began in 2015, when our dear director, Dr Glory V Baltazar, appointed the first ever neurologist at Bataan General Hospital and Medical Center. This is now a tertiary hospital in the peninsula, aiming to be a multi-specialty apex hospital with a 1,000-bed capacity by the year 2028.

The mentor

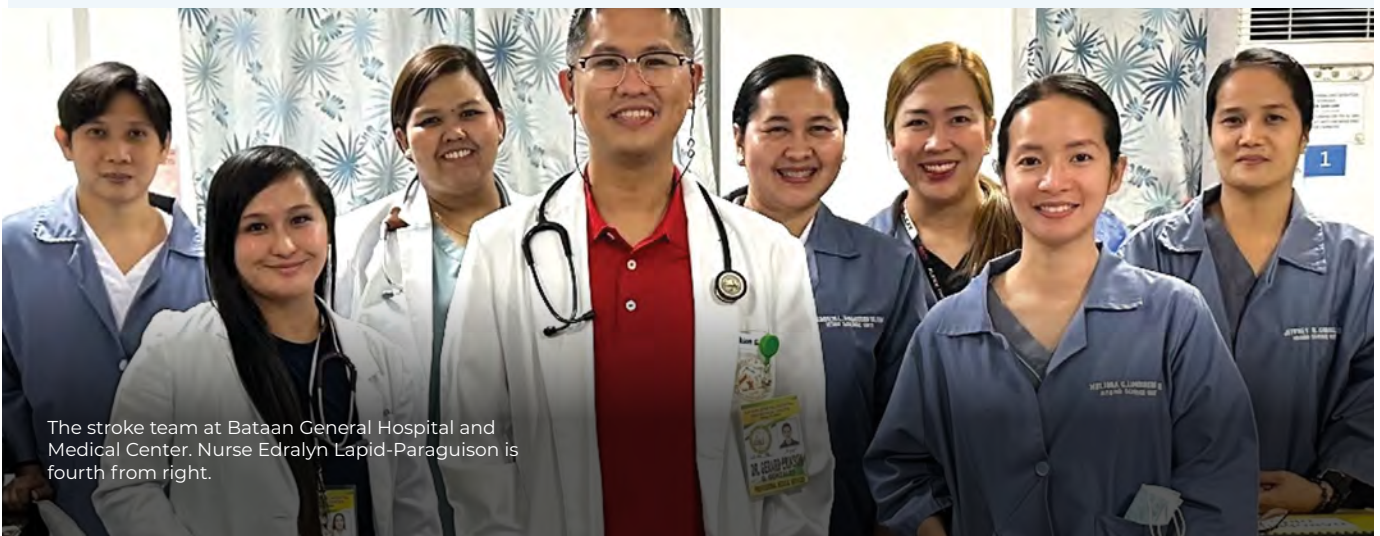
The backbone of our breakthrough is none other than Dr Gerard Erikson Gonzales who initiated the change that fellow Bataños have been waiting for. We are grateful that a man of wisdom was a God-given instrument to heal those who were in need, to teach those who wanted to learn, and to selflessly share his purpose.

Despite having no distinct unit for stroke patients, he started to form a team with nurses and five beds inside the ICU. Later in 2018, the team

was given a specific room with nine beds. His passion for teaching was exceptional, and that created the power for us to extend our hands and hold on to our vision. His guidelines and intelligence paved the way for creating the only neuroscience unit in the province. With his perseverance, we are now equipped to be acknowledged as one of the acute stroke-ready hospitals in the Philippines.

The mastery

By 2022, the unit had its own area consisting of 14 beds for acute critical



The stroke team at Bataan General Hospital and Medical Center. Nurse Edralyn Lapid-Paraguison is fourth from right.

neurological conditions and one epilepsy monitoring unit for the monitoring of seizure patients. The same year also marked the partnership of Bataan General Hospital and Medical Center with the Angels Initiative. Mr Emar Autor of Angels formally introduced the importance of early assessment and management of acute stroke patients.

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What if **we'd had this drug available** and introduced it two decades ago?

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At the start of the following year, three nurses from our unit, Sir Jayson Razz Perez, Ma'am Gianne May Viray, and Sir Jeffrey Cabangal, attended and were recognized as pioneering graduates of a stroke master class held in Baguio City. We are grateful that our chief nurse, Ma'am Arlene Navarro, encourages us to attend different trainings for our own development.

The memory

In the second quarter of 2023, we had our seminar regarding brain attack. The team of doctors and nurses experienced a stroke simulation and were able to also hold a demonstration regarding a specific case of acute stroke. Everyone on the team was able

to handle the stroke medicine or what we consider a “vial of hope”, hoping that what we were doing that day would save someone, and also bring hope to their loved ones.

That day, I remembered how I was a young daughter of a stroke patient. So many thoughts ran through my head: What if we'd had this drug available and introduced it two decades ago? Would I have been able to have my father longer and would he have been able to witness the phase of my life that I am in now?

The miracle

Our enthusiasm led us to make a move in the neuroscience unit. This drove us to have a series of successful thrombolyses, make a difference in the lives of patients, and give them a chance for a better future. Through the Angels Initiative, we can truly leave our legacy. We can offer the treatment we didn't have before.

We also witnessed how NIHSS 17 became NIHSS 0, how an aphasic patient was able to sing his favorite song and praise by raising his hands without any deficit, and what it was like to send them home wearing their smiles.

The legacy

In the third quarter of 2023, we had an array of successful cases, and yet we weren't able to reach the time stamp of less than 60 minutes. Not until Ms Gisella Mutuc of Angels took the initiative to discuss the analysis and impediments. She also guided us on

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This turning point **showcased our team effort.** It was not an overnight endeavor; nevertheless, it was still priceless.

”

how the RES-Q registry worked. Her hard work as an Angels consultant pushed us to move further.

December 1, 2023, marked the day when the Stroke Society of the Philippines visited our province to present a seminar. This event ignited our desire to achieve a win. Indeed, an answered prayer was manifested and we were on cloud nine when Ms Mutuc delivered the good news that we had achieved gold status.

This turning point showcased our team effort. It was not an overnight endeavor; nevertheless, it was still priceless.

From the top management to the different division heads and staff behind this success, we are grateful that you play a big role in making Bataan General Hospital and Medical Center acknowledged internationally. Let us carry on this honor and leave our footprint of success as the future generation follows the right path in stroke management.



Brighter than a diamond

“Measure and improve” has become the motto in the emergency department at Netcare Blaauwberg Hospital where winning a diamond award in recognition of their stroke care excellence is only the beginning.

IN 1979 a photograph appeared in a local newspaper of a four-year-old pretending to listen to a fellow pre-schooler's heart. In the accompanying text, the little boy was identified as “doctor” Charl Carstens. Prophecy or destiny? You decide – because the same Dr Charl Carstens now heads up the emergency department of a large private hospital with a picture postcard view of one of the seven wonders of nature.



Netcare Blaauwberg Hospital is located in Bloubergstrand, a seaside suburb of the city of Cape Town that is famous for its classic view of Table Mountain. When it opened in 2007, it instantly made history because its emergency unit was the first in South Africa to be created by emergency medicine specialists.

Emergency medicine as a specialty was introduced in South Africa in 2003 by Dr Clive Balfour. Charl had met Dr Balfour by chance, during a rotation at a hospital in England's Lake District and was encouraged to return to South Africa and become one of

the first group of 10 South African doctors to complete the four-year course. A fellow resident established the emergency department at Netcare Blaauwberg and Charl, after working there part-time during 2007, joined as a consultant full time in 2008.

On his watch the hospital was recognized by the Trauma Society of South Africa (TSSA) as a level III trauma center in 2018, then pulled out all the stops to attain level II trauma center certification in 2023.

When the precursor to the Angels Initiative began operating in South Africa in 2014, Netcare Blaauwberg

was among the first hospitals to gain stroke-ready status. In 2018 an Angels consultant conducted a simulation at the hospital, and the Angels stroke kit and checklists became part of the stroke protocol. Enthusiasm for the stroke program however flagged after Covid disrupted the healthcare system and the hospital lost its neurologist and stroke champion to illness. But all that was about to change.

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They make loading their stroke care data their first priority every morning.

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Sr Claudette Lotz never considered a career in any field other than nursing. “You just know,” she says. She earned her first degree at what is now the





University of Johannesburg, and after a year in the ICU joined the Netcare group as a trauma nurse. A dislike of routine kept her in the emergency department. "I have never worked on a ward," she says.

When her children became provincial swimmers, her career took a backseat. For almost two decades she worked only occasional shifts but in 2019 she moved to Cape Town and prepared to return to fulltime nursing. That same year she obtained a post-grad qualification in nursing education at the University of Stellenbosch; during the pandemic the following year she embarked on post-grad studies in public health, and this past December she graduated with a master's degree in nursing science. In September 2022 she became unit manager of the ED department at Netcare Blaauwberg and less than a year later the hospital won its first gold WSO Angels Award.

A stroke care system was already in place when she arrived, and Dr Carstens was immediately on board, she says. Recognizing that quality monitoring was the key to improvement, Claudette met with Sr Zasskia Wiese, the national stroke coordinator for the Netcare group, to learn how to load patient data into the stroke care quality improvement registry, RES-Q.

"In the beginning it looked impossible," she says. "But once you get started, you see it can be done." She and ED clinical nurse specialist Michelle Cronje started the practice of making loading their stroke care data their first priority every morning. When the numbers showed that their door-to-needle times could be faster, Angels consultant Bernise Schubert facilitated training about the hyperacute phase. When the time to reach radiology

presented a challenge, they asked the EMS to bring stroke patients directly to the CT and carried out tests on the run. A WhatsApp group connecting the key players has proved immensely valuable and supports prenotification so they're aware of the patient from the moment they summon the ambulance until they arrive at CT.

The result of these efforts was a second gold award in the third quarter of 2023 followed by their first platinum award in quarter four. Mid-way through 2024 they received their second diamond award, recognizing them as a beacon of stroke care excellence.

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A leader has to be part of her team.

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There has been a shift in attitude among doctors in the ED, Charl says. They actively look for reasons to treat ischemic stroke with thrombolysis and make every effort to gain family consent for this life-altering treatment. The enthusiasm of a younger generation of nurses and their excitement when they witness the impact of the treatment are likewise infectious.

"Just start loading your data, just start by taking the first basic step," is Claudette's response when you ask what advice she has for hospitals that have yet to commit to stroke care improvement.

"Taking that first step can be hard,"

Charl adds. "But you need that person who is prepared to light the fire. Then everything falls into place."

They are both that person albeit in different ways. Charl has the cool head which he says is a necessary characteristic for an emergency doctor. "The ED is no place for a cowboy; you need a cool head to manage chaotic stress situations and create order to have a good outcome." He's a young dad who juggles work and family life and still tries to get in a game of golf.

In a different life stage and having regorganised her career in a field she loves, Claudette finds it difficult to tear herself away from work. She is likely to work until 10 or 11 at night, especially if the unit is busy and her team has their hands full. "I cannot stand by and watch someone else struggle, she says. "A leader has to be part of her team."

Driven to succeed and immensely proud of their hospital, Charl and Claudette are now exploring ways to make their diamond shine even brighter. They are talking to the radiology team about using DWI-FLAIR Mismatch, an MRI technique to determine which patients with unknown stroke onset times are candidates for thrombolysis.

A stroke protocol for wake-up strokes and late arriving patients will save many more lives. It might even have saved that of Charl's uncle who'd arrived too late after suffering a severe stroke. Back then nothing could be done for him, Charl says. "Perhaps we could have done something now."



From left, Angels consultant Bernise Schubert, Dr Charl Carstens and Sr Claudette Lotz.

Talk of the Town



Dr Christian Emmanuel Lim
with the proud team he leads at Governor
Celestino Gallares Memorial Medical Center.

The stroke team at this island hospital chose their first patient with care. It was important for their first thrombolysis to succeed, or all their efforts would come to naught. In July 2019 that patient arrived and within hours everyone knew that Bohol island had a stroke-ready hospital.

“NEWS spreads fast in a town like mine,” says Dr Christian Emmanuel Lim of Governor Celestino Gallares Memorial Medical Center in Bohol, an island province in the Central Visayas region of the Philippines.

The “town” he is speaking of is Tagbilaran City, the provincial capital and gateway to the island. It is a self-styled “city of peace and friendship” in reference to a famous treaty between a local native chieftain and a Spanish colonizer four-and-a-half centuries ago. Today, it is among the Philippines’ most progressive cities, and in the days that followed 1 July 2019, Governor Celestino Gallares Memorial Medical Center (GCGMMC) was the talk of the town.

Tagbilaran City is every inch Dr Lim’s home town. After completing medical studies at Siliman University, and his specialization in neurology in the Philippine capital Manila in 2018, he headed straight here – one of only two neurologists on the island and the only one serving full-time in the public healthcare system.

GCGMMC is a tertiary hospital but when Dr Lim arrived at the start of 2019 it had no specialist care for stroke, which accounts for roughly 70 percent of all neurological cases. He reached out to the Angels Initiative for help with a program of transformation that prioritized training for stroke nurses and data-driven improvement.

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On Monday 1 July an off-duty nurse called the hospital to say that **his father had had a stroke.**

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Six months after he arrived, the event that set tongues wagging was that GCGMMC had just treated its first stroke patient with thrombolysis, exactly as they’d said they would. “We showed that after a half year of seminars what we’d been saying was true, that we could do what we’d said we could,” Dr Lim says.

For the precise reason that news spread fast in a town like theirs, Dr Lim and his team had been patiently waiting for the patient who would be first. “I had to succeed, or all our effort would be wasted,” he explains.

Then on Monday 1 July an off-duty nurse called the hospital to say that his father had had a stroke. He was on his

way to fetch him and bring him to the hospital.

The stroke team at GCGMMC had been trained but not yet tested. Now all their training kicked in as they rushed to meet their colleague and his father in the emergency room. Even before the patient was discharged, word got out that Bohol island had a stroke-ready hospital.

This auspicious beginning galvanized the nursing staff, says Vanessa Alonso, nurse manager in the acute stroke unit at GCGMMC.

“Witnessing the remarkable effectiveness of thrombolysis fuelled our determination and made us strive even harder for knowledge and improvement. In our pursuit of competence, we organized extensive stroke management training sessions. Unfortunately, the emergence of the pandemic halted these plans, marking the first significant challenge. But being prevented from conducting face-to-face meetings did not impede our commitment to learning. With invaluable support from Angels, we attended online courses and simulations, virtual lectures, and coaching and mentoring sessions.



"Angels also guided the team in optimizing our stroke pathway. In this regard the stroke care quality improvement registry (RES-Q) contributed greatly to our progress. The tool helps us monitor our stroke care performance, identify gaps and implement the necessary adjustments."

Success came early. GCGMMC won its first WSO Angels gold award at the end of 2020, and its first diamond mid-way through 2022. Now with eight diamond awards to their credit, they were one of three Philippine hospitals honored as a centers of excellence after reaching diamond status in all four quarters of 2023.

"It's a team effort," Dr Lim says emphatically. "Now we have everyone on board, from security manning our doors to the emergency department, radiology, pathology, pharmacy, nurses and doctors from all specialties, we continuously evaluate each other's response to maintain our standard."

In March 2024, GCGMMC hosted the second Stroke Nurse Masterclass 2024, an initiative of the Stroke Society of the Philippines and the Angels Initiative that will see 200 nurses become certified stroke nurses within three years. The 60 nurses that completed their first module in Tagbilaran in March came from 15 hospitals in the Visayas region.

Training nurses is also the starting point for Dr Lim's strategy to expand stroke care in Bohol province. Tagbilaran City is located in the south west of the island. In the opposite corner lies Ubay where Don Emilio Del Valle Memorial Hospital is destined to become Bohol's second stroke-ready hospital. So far four nurses from

Ubay have undergone three months' training at GCGMMC prepared by the stroke team lead by Mr Arthur Mendez, and attended the Stroke Nurse Masterclass in March. This brings Dr Lim a step closer to his goal for all Boholanos to have equal access to evidence-based stroke care.

To understand the goal you have to consider the topography of the island. Bohol is rolling and hilly and world-famous for its Chocolate Hills, a constellation of more than 1,200 cone-shaped limestone hills that turn brown in the summer. "We have mountains," Dr Lim says. So, while Ubay may only be 100 km away from Tagbilaran, the trip by road takes at least two hours – "with the ambulance driver racing like a Ferrari racer," he adds.

Once Don Emilio Del Valle is stroke-ready, everyone on the island will be within 90 minutes of acute stroke care.

"We have identified some doctors who will be able to help us with stroke management but we need trained nurses in the ER and the stroke unit," Dr Lim says. "We can always do telestroke but we need nurses on the ground."

What they also need is an informed public that can recognize the signs of stroke and know how important it is to seek help within the window for thrombolysis. This is a challenge the GCGMMC team has embraced with creativity and resilience, Nurse Alonso says.

"We organized stroke awareness campaigns in schools, barangays, and other hospitals. We connected with other municipalities so they're aware of the services offered by our hospital and we have strengthened ties with

the emergency management system to ensure a fast and coordinated response in times of crisis."

The message of prevention and early detection is spread via online platforms, radio broadcasts and townhall meetings, and less formally to patients and their caregivers in other hospital wards including surgery, obstetrics, orthopedics and so on. There are also plans to reach school children via school principals and teachers.

Although they haven't formally measured the effect of their awareness activities, the impact is being felt at the hospital door.

Dr Lim says, "At the start we had one patient arriving on time per month, and now we are thrombolysing seven, 15, as many as 20 patients every month."

What Dr Lim won't do if a patient is a candidate for thrombolysis, is ask for consent. On the contrary: "If they refuse to be treated, we ask them to sign a waiver."

As far as his hospital is concerned, thrombolysis is the standard of care, and he will no more ask for your consent than he'd ask your permission to give you oxygen if you were gasping for air.

Although the Philippines doesn't yet have reliable stroke incidence data, Dr Lim believes it's higher than generally believed. He says, "We see on average eight stroke per day and no day goes by without at least one stroke patient."

Like many public hospitals outside of major cities in developing countries, GCGMMC routinely runs at 150 to 200 percent occupation, which imposes a heavy burden on healthcare workers and hospital resources. Responding to this burden, five years ago the hospital adopted the mantra, "So Gallares, So Kind" to encourage overworked staff to do more than go through the motions.

Dr Lim explains: "We try to provide the best quality care. One of the attributes of quality care is the value of kindness. The mantra is a reminder that despite our busy load, we still need to be kind."



FAST Heroes & the pursuit of happiness



Dimitar Hadzhivalchev and Elica Hadzhivalcheva are the indisputable superheroes of the FAST Heroes campaign in Bulgaria, deploying their time, talents and teamwork in a bold strategy with a 100 percent hit rate. But at the heart of their success lies a love story for the ages.

Mr Martin Vishanov, a computer modeling and information technology teacher at Vasil Levski Comprehensive School in the Bulgarian city of Russe, owes his life to his third-grade class. During a lesson last summer, Mr Vishanov began to feel dizzy. He lost his balance and when he tried to sit down on his chair he crashed to the floor.

Teachers taking a tumble is usually an occasion for mirth. But the class, having noted moments before that their teacher was struggling to speak, knew right away that Mr Vishanov was having a stroke.

They ran to find their class teacher, Mrs Diana Ilieva, who called 112. The ambulance arrived within 10 minutes and after emergency treatment for stroke, Mr Vishanov was soon back at school.

In Sofia four summers earlier, on 3 August 2019, the wedding

took place of Dimitar Hadzhivalchev and Elica Hadzhivalcheva. Elica is the founder of Heart to Heart for Bulgaria, an organisation for the prevention of cardiovascular disease, a cause to which she devoted herself after losing her first husband to a heart attack in 2016. Dimitar is a process improvement specialist in the FMCG sphere. Their story began on a Friday evening in August 2017 when Elica and Dimitar were "tricked" into meeting by mutual friends. Although neither of them was interested in meeting someone new, they met again for lunch the very next Tuesday, during which Dimitar learnt that, as well as being a great beauty, Elica had invested her life with meaning by devoting her time and talent to a noble cause.

His own career priorities, which revolved around building brand equity for consumer goods such as coffee or chocolate, seemed shallow by comparison. Meeting Elica opened his eyes to the potential for living with purpose. "I was inspired by her," he says.

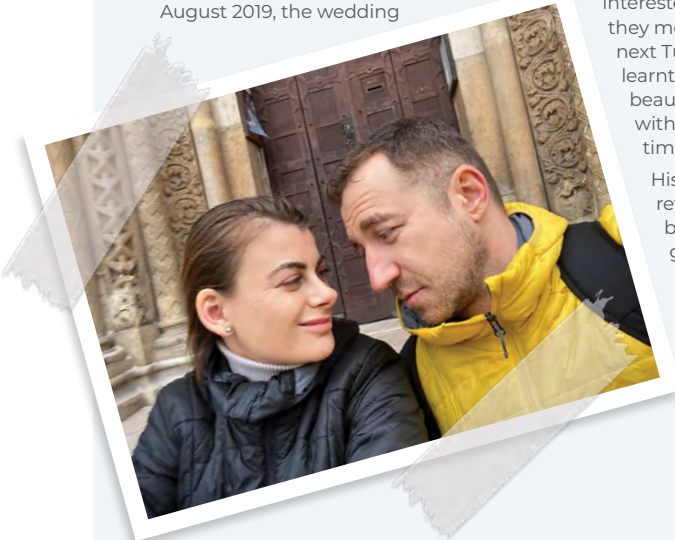
Elica was impressed in turn with Dimitar's "curiosity, charisma, and wholeheartedness". They were married two years later.

"At that stage of life – we were close to 50 – there was no time for hesitation," says Dimitar who believes that symbols determine our attitude towards the world. "We got married to show our devotion to each other. Marriage was a symbol we gave to one another."

"You can't plan when you will meet and fall in love with another person," Elica says. "He became the most special person to me, gifting me every day with challenges and adventures that fill me with gratitude, joy, and insights into the strength and beauty of my inner world. He is true love in action!"

Something momentous was about to happen

A golden thread ties their love story to the survival and recovery of Mr Vishanov of Russe, for Elica and Dimitar are the reason why, over the past two years, 25,000 children and more than 150,000 adults in Bulgaria have learnt to recognise and act on the symptoms of stroke.



Elica was introduced to the schools-based stroke awareness education project, FAST Heroes, in 2019, at the invitation of the World Stroke Organization. Things clicked immediately the way they had with Dimitar, who recalls: “She came back from that first meeting saying this is my thing, I have found it.”

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They made a rule to stop working at seven **“even if we were in the middle of a word”**.

”

By March 2020 Elica was poised to introduce the campaign at her first school. Instead, she found herself standing in a grocery store where people around her were fighting each other for flour and beans. It was like being in a war, she told Dimitar who was returning from a business trip to Serbia where he'd become aware something momentous was about to happen.

Days later the number of Covid patients in Bulgaria reached 23 and the government declared a state of emergency. As wave after wave of the disease rolled across Europe, Dimitar and Elica busied themselves with planning, and translating and adapting the FAST Heroes material. Although they had yet to implement the campaign in a single school, their commitment ran so deep that they had to make a rule to stop working at seven in the evening “even if we were in the middle of a word”.

By the time restrictions were lifted, they were more than ready to carry out one of the most impactful FAST Heroes implementations in the world, in one of the most complex countries in Europe.



“I really admire her”

Bulgaria is a small country buffeted by external influences and blighted by corruption. Bulgarians have gone to the polls six times in under three years – a political game of musical chairs that presents challenges to the top-down strategy Elica and Dimitar have adopted in order to achieve the scale they want.

Stroke is a leading cause of mortality and disability in Bulgaria where it affects around 50,000 people per year. For these patients the likelihood of dying as a result of stroke will be three times higher than the average in other EU countries, and the majority of survivors will live with disabling disorders for the rest of their lives.

Most Bulgarians are unfamiliar with the risk factors for stroke, unable to recognise stroke symptoms and unaware of what to do at the first signs of stroke. The sooner a stroke patient reaches a stroke-ready hospital, the greater their chances of surviving with their life intact, but fewer than three percent of stroke victims in Bulgaria undergo thrombolysis, the emergency

treatment approved for acute ischemic stroke. For tens of thousands life will never be the same again.

“

Teachers at these schools learn about FAST Heroes in a webinar before they start implementing the program in their classrooms.

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For stroke prevention and awareness, the clock is ticking, so Elica and Dimitar have devised a strategy that meets the scope of the crisis. Rather than approach schools directly they reach out to mayors and the heads of regional departments, inviting local doctors to bolster their case. Once convinced, these officials will summon the school principals in their





territories to a meeting where the campaign is introduced, and personal stories shared. In a country where 50,000 strokes occur per year, stroke is personal, and for the school principals the opportunity to share their own experience with stroke frequently ends in tears. They will carry this emotion back to their schools. Finally, teachers at these schools learn about FAST Heroes in a webinar before they start implementing the program in their classrooms.

That their strategy has a hundred percent success rate doesn't mean there are no difficulties.

With officials having become wary of well-meaning projects that cost money and deliver no measurable results, it can be hard to open doors and start conversations, Dimitar says. In addition, teachers in Bulgaria are accustomed to being remunerated for implementing EU-sponsored education programs; FAST Heroes is the only one they're expected to deliver for free.

"They may start out a bit negative when they realise they're not getting paid but once they're acquainted with the program and become infected with Elica's energy and devotion, they turn into ambassadors," Dimitar says.

Leaving a good impression is imperative. Their diligence and combined charisma have won them friends in the media and in Bulgaria's stroke community and earned them the support of the ministers of health and education. To this they can now add the ministries of the economy and the interior with whose endorsement they recently began educating staff in state-owned enterprises and the emergency services.

"We use every possible tool to get inside people's hearts and minds," says Dimitar whose role is that of

master strategist. Although he continues with his own career, he was a convert to FAST Heroes from the outset, captivated like everyone else by Elica's gifts for attracting and inspiring others. "I really admire her," he says.

The essential components of a meaningful life

Working together turns their work into happiness, Elica says. "We both have the same goal – to be dedicated to causes that benefit others and align with our values. But of course each of us has our own strengths and roles. Dimitar is an exceptional strategist, and I am the one who methodically and devotedly pursues our set goals.

"We strive to uplift each other, support each other, and enhance our skills, making us better. In my work with Dimitar, I have learned not to fear 'right' and 'wrong'. Together we succeed, take risks, and make mistakes, but we also know how to love each other, even when we fail.

We allow ourselves to be exactly who we are and to do what we want to do. This is how we work our happiness and attract success in our work."

Working for the benefit of society is one of the essential components of a meaningful life, Elica believes. There are others: "Realized potential and talents, the absence of any regret for things past or undone, and certain repetitive healthy actions and choices that always bring us happiness [but] the awareness that you are doing something that makes the world a slightly better place is a big part of the meaning."

These insights arrived in the slipstream of pain and loss after her first husband died inside an ambulance that had arrived too late.

"I remember the old times when I lived in complete comfort," Elica says. "This peace did not challenge me to ask myself how I was handling my life and work. Then, suddenly, a great pain from my personal history burst into my life with overwhelming

force. Following that, of course, like any other person I also had many unproductive months in which sadness, anger, and despair hindered everything, including my work.

"But what I know now, with the perspective of time, is that when pain shatters your life the only way to survive is to become more organized, more disciplined, and to rely solely on your own strength to accomplish your daily tasks and life goals. In this sense, my personal history taught me to take responsibility for the way I live my life and work."

FAST Heroes is their life's mission, both Elica and Dimitar say. It changed their lives and has already changed the lives of countless others, not least those of Mr Martin Vishanov of Vasil Levski Comprehensive School and his class of third-graders. Ten years from now they hope to have changed the lives of thousands more as by then at least 300,000 children in Bulgaria will hopefully have earned their capes, and Elica and Dimitar will feel "satisfied and worthy of happiness".



Community spirit

“If your patient is also your neighbour, your uncle, or the local hero, you simply cannot be anything other than the best.” This is the attitude that has put IPSS Medical Rescue on the north coast of KwaZulu-Natal on course for an EMS Angels diamond award.

Thinus Stander remembers his first stroke patient so vividly that decades later he could tell you the address if you asked. He was a newly qualified ALS paramedic in Cape Town when they were called out to a patient who was having a haemorrhagic stroke. “I was out of my depth,” Thinus remembers. “I felt helpless and alone.”

In August this year, in a different part of the country, Thinus accompanied the final journey of another stroke patient he will never forget. This time it was no stranger – Nazir Sadack had been a hero to a community left reeling from the loss. There wasn't a paramedic up or down the north coast of KwaZulu-Natal (KZN) who hadn't known or worked beside this big-hearted rescuer, crimefighter and volunteer.

“This is my town,” says Thinus about Ballito where IPSS Medical Rescue is headquartered. It is a holiday town located at the gateway to the Dolphin

Coast, as this stretch of coastline is also known for the schools of bottlenose dolphins that frolick in the waves of the Indian Ocean.

IPSS may be a privately owned service but it is rooted in the community whose footprint starts here and stretches northward to Mtunzini and inland to uMnambithi.

And as Thinus points out, if your patient is also your neighbour, your uncle or, as in this case, the local hero, you simply cannot be anything other than the best.

‘They prenotify us’

Thinus is the clinical governance manager of IPSS Medical Rescue, which is on track to become the first EMS in KZN (and the second in South Africa) to win an EMS Angels diamond award for prehospital stroke care. It is an offshoot of IPSS Security, a private provider of industrial and large client protection that noticed a need for emergency medical services

in an underserved rural-industrial area. In the course of 13 years it has grown from a single response vehicle to a fleet of 13 ambulances and three ALS response vehicles, and gained a reputation for impressive response times, evidence-based practices, deploying high-tech solutions for challenging circumstances, and old-school pride.

When Angels consultant Maxeen Murugan first started working with Thinus and IPSS operations manager Keith Pillay, she found that they already complied with EMS awards criteria in almost every respect. “When you mention IPSS to big or small hospitals, the first thing they say is ‘they prenotify us’,” Maxeen says. As well as making prenotification consistent and “seamless”, their handover documents were impeccable and their stroke protocol was on point. It was simply a matter of uploading their data to RES-Q in order to line them up for an EMS Angels Award.



Data-driven improvement is stitched into the IPSS culture. Data collection is done in real time and if data analysis reveals certain trends or patterns, corporate hurdles are easily cleared so policy changes can be implemented quickly. This level of agility is exciting for employees, says Thinus, who adds that they're "picky" recruiters who prioritize teachability when adding to a team that feels like a family.

A scientist by nature

The technology that supports IPSS performance has its roots in concern for employee and vehicle safety, which is crucial given South Africa's crime rate. Data shows on average 66 vehicles are hijacked on South African roads per day. Vehicle tracking technology using GPS satellites that allows round-the-clock tracking and controlling of vehicles also helps IPSS optimize their dispatch system and deliver outstanding response times.

Yes the work can be dangerous, Thinus says, especially in situations where their uniforms are mistaken for those of law enforcement, but their biggest safety feature is a community that has their back.

“

That ignites my passion – the fact that you can make a massive difference.

”

One gets the impression that Thinus is not entirely averse to a bit of danger either. He grew up wanting to be a doctor and completed a BSc in psychology and physiology in the hopes that it would lead to medical school, but student debt put paid to the dream. In paramedicine, however,



he found an outlet for both his interest in medicine and his taste for adventure, and the right set of challenges for someone who stays calm under pressure.

He completed the B.Tech degree in emergency medicine at the Cape Town University of Technology, and eventually found his way to KZN nine years ago, moving across the country for love.

What does he like about the work? “Everything,” he says. “I like the ability to make a difference in someone's life, anonymously, without taking the credit.” The anonymity acts like a shield, protecting him from the heartache and ugliness that sometimes comes with the territory. It's important not to get drawn into emotions.

“I try all I can and then I walk away,” he says. “I'm a scientist by nature and I find comfort in science. It's a protective mechanism.”

But walking away doesn't mean feedback isn't important. “We do follow up once there is emotional clarity,” Thinus says, adding that the small town atmosphere and strong community ties mean you will learn of the outcome one way or another. “Feedback is mostly important for education – for considering what we might have done, or should have done.”

‘That ignites my passion’

At an age when many paramedics have retired from the field, Thinus has

dealt with a wide range of situations and witnessed “unfathomable” trauma. The reason why he is passionate about stroke and cardiac cases, is that science has made good outcomes possible.

“The latest treatments can make a big difference,” he says. “Within minutes you can go from being in severe jeopardy to a full recovery. That ignites my passion – the fact that you can make a massive difference.”

The aftermath of an event such as stroke is often the ideal time for letting the message about prevention and symptom recognition sink in, he says. Teaching the community about how to protect their health and what to do in a crisis is simply part of their work.

There is a more subtle form of teaching that takes place in the interaction with hospitals. It starts with trust. Prenotification and competent handovers build trust, and so does sticking around in casualty for the benefit of a critical patient. Then you don't try to influence practice at a corporate level. Instead, you talk to the nurse and through her get to know the network.

“Change is hard, especially in medicine,” Thinus says. But you don't always have to wait for a policy change before you take a stroke patient directly to the CT scan. With the right approach, “we can change practice before we change policy.”



Lessons from Ukraine



Anastasiia with Ukraine Angels consultant, Lev Prystipiuk.

Teachers are the real heroes of FAST Heroes implementation in Ukraine. It's their courage and dedication that has sent the country to the top of the leaderboard in more ways than one.

ON the morning of 24 February 2022, Anastasiia Klysakova sent an SMS to Angels Initiative global project lead Jan van der Merwe in Germany. Jan was also the founder of the schools-based stroke awareness project, FAST Heroes, which the agency OneHealth was implementing in Ukraine.

Jan and Anastasiia were due later that day to give a joint 20-minute presentation to Ukrainian business leaders that they had rehearsed the day before. But in her SMS Anastasiia wrote that the presentation could not go ahead. Hours earlier Russia had launched airstrikes against the cities of Kyiv, Kharkiv and Dnipro, and now Russian troops were invading the country from the north, east, and south.

The presentation would have to wait, for how long she couldn't say, because Ukraine was at war.

In Kraków, a miracle

In June 2024 Anastasiia and OneHealth director Natalia Olbert-Sinko are in Kraków, Poland, for the third annual FAST Heroes Teachers Summit and Awards. By now Ukraine is grinding through a third year of fighting. Civilian casualties have been on the rise since March amid escalating hostilities. More than 35,000 innocent people have been killed or injured, the official statistics

say. There are 2,000 children among the casualties. The actual numbers will be more devastating by far.

But in Kraków, a miracle. An elementary school in Kharkiv tops the FAST Heroes leaderboard for the second year running. In the language of the campaign – having earned points for educating their parents about stroke, completing the e-books and beating their personal best in the online games, the children attending Kharkiv Elementary School #33 have distinguished themselves as the world's leading FAST Heroes.

Natalia takes us behind the scenes of the production of a song-and-dance video the seven- and eight-year-olds in class 2-B shared with the FAST Heroes community last year after also clinching the award for best class:

The Kharkiv region had been under daily shelling by Russian forces since February 2022. If a school building had no air raid shelter, children studied

online. To shoot the video, the agency had to find a location that could simultaneously serve as a studio, a shelter and rehearsal space. Parents needed their arms twisted, but their respect and affection for the class teacher Ms Elena Roskoschenko decided the matter. The sounds of explosions were edited out of the final video.

Teachers want to teach

Teachers are the heroes of the story Natalia and Anastasiia share on the morning of the awards. Knowing from the start that to implement FAST Heroes they would need a network of teachers, they partnered with a trusted education NGO, Osvitoriya, to find and train their first 50 teacher-ambassadors.

Making teachers the focus of their campaign turned out to be a winning strategy. "Many teachers in Ukraine are older," Natalia explains. "Like all teachers they need to be reminded to take care of themselves as well as others. Stroke is an important topic as many of them had cases in their families."

The reverence in which teachers are held in Ukraine is a strategic advantage. Besides that, "teachers want to teach, and we help them to teach", Natalia says.

It is telling that many of the teachers who first signed up as ambassadors in



Ukrainian teacher-ambassadors attend a FAST Heroes Summit in Kyiv in 2024.

2021 are still part of the campaign.

"After fulfilling their initial contract some teachers sign up for a second or third year," Anastasiia says. "They don't have to, but they do because they like it, and there's an opportunity to implement it in a new class. Once you've completed the program it is part of your DNA."

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Once you've completed the program it is part of your DNA.

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"Our teachers are innovators," Natalia adds. "They like something that is new and different. It is important for them to be first, then others follow."

It's Diffusion of Innovation theory in action. By the time the war started, 3,395 teachers had already registered with the campaign and 38,410 children had completed the program. At the conclusion of the fourth wave in August 2024, these numbers had grown to 6,266 teachers and 65,437 children.

Back to work

Ukraine is among the best educated countries in the world and education is an important topic for Ukrainian society, Natalia says. Immediately after war broke out schools remained closed for two weeks. Then, whether from a village in the mountains or the relative safety of a city in western Ukraine, the country's teachers gathered their wits and went back to work.

They found that some of their learners had been scattered to the four winds. In the months following the invasion seven million mostly mothers and children were evacuated, four million of whom remain abroad.

Even those who attend schools in their new countries do their Ukrainian lessons remotely after school.

The teachers, too, are lifelong learners from whom earning education credits is mandatory. Natalia and Anastasiia have applied for certification of the FAST Heroes program and expect that the opportunity to earn credits will encourage participation, but it's really about respecting teachers' needs, Anastasiia says. Once on board, it will be the program content that locks them in.



Natalia (left) and Anastasiia accepted the FAST Heroes Award on behalf of Kharkiv Elementary School #33 at the FAST Heroes Summit in Kraków.

Lifelong learning

Natalia and Anastasiia are themselves products of the Ukrainian passion for education. Originally from Stryi, a city near Lviv in western Ukraine, fierce patriot Natalia obtained her masters degree in Political Science from the highly ranked National University of Kyiv-Mohyla Academy. It's one of the oldest schools in Eastern Europe, dating back to 1615, but it was closed by Tsar Alexander I in 1817 and reopened after the fall of the USSR in 1991.

"What I learnt most at university is critical thinking and how to deliver a message," she says. She has become a specialist in communication and capacity building related to healthcare education and reform. She and her husband have made their home outside Kyiv for the past 20 years.

To the awards ceremony she wears a dress by a young Ukrainian designer, in a conscious expression of love for her country.

Anastasiia's hometown is in Crimea, a temporarily occupied territory since 2014 that is now used as a base from which to attack mainland Ukraine. She has been home a few times since annexation – for her mother's birthday, her stepfather's funeral – but the peninsula has been inaccessible since the full-scale invasion.

Anastasiia got her masters degree in economic theory in Kharkiv and her MBA in Kyiv. After the war began she moved to western Ukraine, staying for a while in Natalia's childhood bedroom, before evacuating to Vienna. She moved back to Kyiv in 2023 but is now back in Vienna where she pursues her next master's degree, about cross-disciplinary strategies in the arts. She's been coordinator of the FAST Heroes campaign in Ukraine for the past three years.

A new life

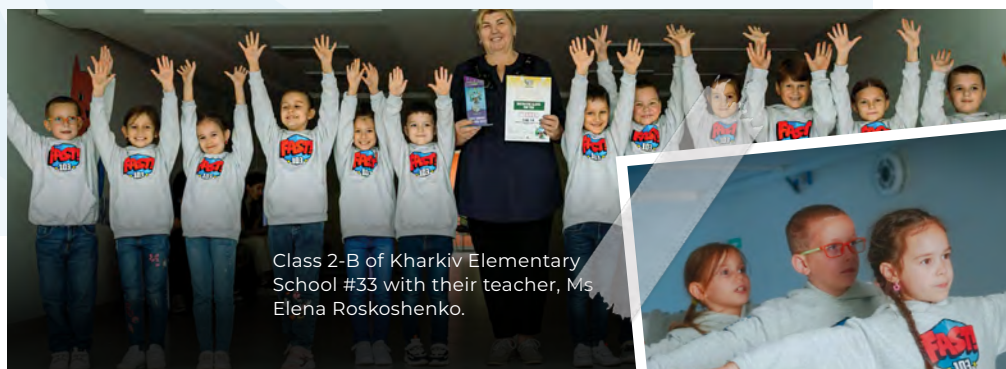
Natalia and Anastasiia realized soon after the invasion that the community of teachers they'd created needed help processing the shock and anxiety caused by war. So for a time teacher webinars focused on mental health and Angels consultant Tamara Zabashta's background in psychology came in handy. "We'd get everyone together to talk about mental health, to support our community," Natalia says.

The positive emotions associated with the FAST Heroes curriculum may also have helped children cope with the stress of war, Anastasiia speculates. "Research has shown that stress makes it very hard to teach and learn. But it also makes you strive even more – when you want to live so much, you try extra hard," she says. She thinks it's likely that the gamification and interactivity that characterize the program serve as a distraction. "While you're playing games in the shelter you can forget for a moment what goes on outside."

Not everyone who watches the video of Kharkiv's world-beating elementary schoolers will understand what the situation is really like for this school, Natalia says. "To have results like these in these conditions takes ten times more effort."

But it is, in the end, a program that gives back to those who invest in it. They recently met a teacher in her fifties from occupied Dombas who'd moved to western Ukraine after losing her house in the war. Arriving in an unfamiliar region, this teacher needed to find a job and a place in the community. So she applied to become a FAST Heroes teacher-ambassador.

"When we interview ambassadors we always ask what is motivating them," Natalia says. "This teacher understood that FAST Heroes was very important to children, important to society and important to her. She could help the children and we could help her. With our program she could start a new life."



Class 2-B of Kharkiv Elementary School #33 with their teacher, Ms. Elena Roskoshenko.



Moments away

The Hatzolah story



It's official. A community and faith based medical rescue service with a small footprint and mostly staffed with volunteers has just won South Africa's first EMS Angels Diamond Award.

IMAGINE you're the CEO of a public company. You're addressing a board meeting when you are alerted, via the two-way radio clipped onto your belt, about a medical emergency in close vicinity to your office. You're backing your car out of the parking lot even before the dispatcher has ended the call. On this occasion the emergency is such a short distance away that you find yourself walking into the premises while the caller is still on the phone.

You will spend approximately three to eight minutes on the scene, during which time you will provide basic emergency care using the equipment you carry in the boot of your car. Depending on the emergency this may include checking the patient's vital signs, taking their history and inserting an IV line.

Once an ambulance arrives, the handover will be swift and seamless, and you will be back in the boardroom in a matter of minutes.

This is not a scene from a Netflix series but a real situation that could occur up to seven times a day, or 2,500 times in a year, for volunteer members of a small community and faith based emergency

service in South Africa's largest city, Johannesburg. Drawn from the ranks of plumbers and electricians, doctors and nurses, teachers and students and CEOs, the 62 trained and equipped volunteer emergency responders are one reason why Hatzolah Medical Rescue's response times measure between 30 seconds and five minutes. The other is that the service operates within a defined geographical area located to the northeast of the Johannesburg Metro in clusters of suburbs with substantial Jewish communities.

In addition to the volunteer responders there are also three fulltime advanced life support (ALS) paramedics, and six intermediate life support medics to

staff the three Hatzolah ambulances. There are three fulltime dispatchers who take calls during normal business hours, and 23 volunteer dispatchers who man the phones after hours and on weekends.

And there is one feeling every member shares, says Uriel Rosen who as well as being operations manager and ALS paramedic is also a volunteer. "We care for life. It is in our culture and our religion, expressed as the idea that 'whoever saves a life has saved the world entire'. We live our lives by that, and our volunteers are driven and sustained by a shared goal and a selflessness that knows no bounds.

"Our objective is to help people, the best and fastest way we can."

"Best" and "fastest" were what lead to Hatzolah becoming the first emergency medical service in South Africa to receive an EMS Angels Diamond Award, a distinction they earned in quarter two of 2024. They'd been working on their stroke management for years, says Yudi Singer, medical manager, ALS paramedic and volunteer. This has included simulation training, propagating the idea that time is brain throughout the system, selecting and





prenotifying the nearest stroke-ready hospital, using the Angels prehospital checklist so there'd be no delay in the transfer of information, and wherever possible taking the patient directly to CT.

It was in Johannesburg hospitals that Angels consultant Wendy Mandindi first heard about the “amazing” work done by Hatzolah – not only hospitals in the private healthcare networks, but also in state facilities such as Charlotte Maxeke Academic Hospital near the city center.

“But they didn’t realize how amazing they were,” Wendy says. It was an uphill battle persuading Uriel and Yudi that their organization could be eligible for an award for which candidates must submit data for 30 consecutive stroke patients per quarter. When Uriel kept insisting they “didn’t have the numbers”, Wendy called in reinforcements.

Not long afterwards, Uriel received a call from an emergency medicine specialist whose unit was also vying for an EMS Angels Award.

“Join RES-Q,” they urged. “Submit your data, we need competition!”

It took another phone call and finally an ambush for Uriel to change his mind.

On 18 March 2024, Wendy and her co-conspirator turned up at Hatzolah’s headquarters, determined not to take no for an answer. Together with Uriel they studied the quarter’s spreadsheets and by 4 pm the verdict was in: Hatzolah was within striking distance of an EMS Angels Award and there was still another month to go before the quarter one deadline.

An admin oversight prevented them from winning a diamond award right away. In a couple of cases the team had omitted to note down the name of the person they’d contacted for prenotification. But there wouldn’t be a single empty data field in quarter two.

Yudi and Uriel, who are friends as well as colleagues, both heard the call of lights and sirens from early on.

Uriel’s mom tells him that he could identify ambulances by their sirens from the age of three. He eventually relayed a passion for medicine into emergency work and in 2007 moved from Israel to South Africa where his goal was to join the Johannesburg chapter of Hatzolah.

Yudi’s father and grandfather were both physicians but he knew, even before he reached high school, that he would follow an uncle into emergency medical care. He says, “I spent a lot of time ‘chasing ambulances’ while in high school. I did a first aid course as soon as I could and volunteered for the ambulance service, riding along on weekends; I found it exciting and stimulating.”

“

Of course time away is precious. But our work is precious too.

”

He went into training straight after school and joined Hatzolah as soon as he could. He’s always liked helping people, he says. “There’s a lot that happens behind the scenes as day after day we try to improve. It’s not just about getting the patient from a to b, but about providing comfort, dignity and care to the patients, to the public.”

There’s a lot of learning behind the scenes too – training their team, educating the community, expanding their own knowledge.

Currently enrolled as a post-grad student in emergency care, Yudi has noted that there’s more emphasis on collaboration between the providers of prehospital and in-hospital care. Having a shared goal is “extremely necessary,” he says.

The stories they share about cases that stand out have two things common – they end happily, of course, and they reflect on the relationship between hospital and EMS. Yudi recalls being a guest in the home of his parents-in-law when their domestic worker had a stroke. He instantly recognized the symptoms and drove her in his own car to “Joburg Gen” as Charlotte Maxeke Hospital was then known. The moment stands out for the outstanding treatment provided by an overcrowded state hospital. He says, “I cannot explain how impressed I was with their care.”

In Uriel’s story the shoe is on the other foot. About three or four months ago, they rushed to take care of a patient whose only symptom was blurred vision on one side of an eye and whose only history was an as yet untreated clotting issue. En route to the hospital they called ahead to let them know their patient had had a stroke.

A nurse in the emergency department scoffed at their diagnosis, but a doctor intervened, saying: “We trust you guys. If you say it’s a stroke we believe you.” After treatment for stroke the patient was discharged five days later, her vision completely restored.

Something else Uriel and Yudi have in common is the way they relax, or rather don’t. To really unwind, they have to travel to an area with no cellphone signal – because turning off their phones is simply not an option.

“We actually enjoy the work,” Yudi says. “We want to work day in and day out and find more ways to improve, ways to do things differently, more things we can do.

“Of course time away is precious. But our work is precious too.”





Turning point in Pakistan



A powerful combination of imagination and will shapes the story of the first and so far only hospital in Pakistan to win a WSO Angels Award.

THE FRENCH author Antoine de Saint-Exupéry wrote in his memoir that “a rock pile ceases to be a rock pile the moment a single man contemplates it, bearing within him the image of a cathedral”.

The kind of man this brings to mind is one with the imagination and the will to create something magnificent where nothing stood before.

Such a man we meet in Rawalpindi, the third-largest city in the Pakistani province of Punjab, where Dr Husnain Hashim is consultant neurologist and stroke specialist and head of the neurology department at Fauji Foundation Hospital.

When Dr Hashim first arrived here in 2018, he left behind a good life and a thriving career in Dubai. Had it not been for the needs of his elderly parents, that was where he would have stayed. In contrast with the expansive neurology department at Dubai's eminent Rashid Hospital, what passed for the neurology department at Fauji Foundation Hospital in Rawalpindi at the time consisted of one junior neurologist, a

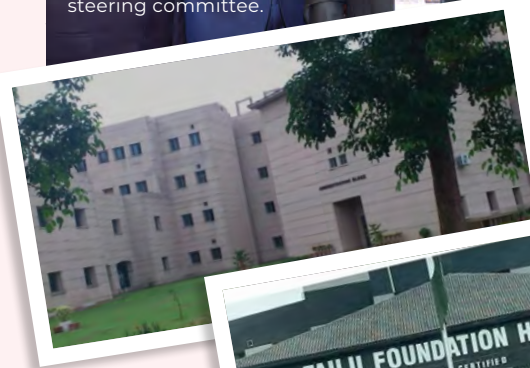
single technician and a tiny room.

Shrugging off disappointment, Dr Hashim saw in his mind's eye a stroke center where in future stroke patients would receive the highest standard of care. What he didn't realize was just how many rocks he would have to move by himself to give substance to this vision.

Dr Hashim became what he describes as a “one-man army” bound to an exhausting routine of hospital rounds, attending to outpatients and conducting neurophysiology testing. To grow his army, he needed to attract doctors and not, as happened on successive occasions, lose them to opportunities abroad. His rather audacious solution was to turn his neurology department into a residency training center, an arduous process that would take a year to conclude.



Dr Hashim with his role model, Prof. Dr. Suhail Abdullah Alrukn (center) who is also a member of the Angels global steering committee.



points are just that – they're moments that lead to new and different directions, while the journey still lies ahead. A familiar problem now presented itself. The city of Rawalpindi already had four well established neurology departments. Attracting residents to Dr Hashim's brand-new program would prove to be a challenge.



In January 2021 the first postgraduate resident broke the ice. Then another one came, and others followed. By late 2024, the program will have produced three neurologists and enrolled 15 more, making it one of the biggest programs in the region.

But this was far from the only change that was taking place at Fauji Foundation Hospital.

In Dubai Dr Hashim worked in what was then the only round-the-clock stroke service provider and the only dedicated stroke unit in that city. Although the thrombolytic drug would not be registered in Pakistan for another few years, he knew he could reduce stroke mortality and morbidity by providing evidence-based acute care and preventing complications. In 2022, with the unstinting support of the hospital administration, he carved out a small stroke unit in the high-dependency department, implemented an acute stroke pathway and formed an alliance with other specialities including emergency, internal medicine, medical ICU, radiology, cardiology and rehabilitation.

Dr Hashim was no longer a one-man army. With Dr Saeed Arif having joined his department, the pace of change was picking up and 2023

would turn out to be a stellar year for several reasons: In January of that year Dr Hashim's department treated its first stroke patient with thrombolysis; reinforcements arrived when Dr Saima Shafait joined the department; Dr Hashim became vice president of the Pakistan Stroke Society and arranged an international stroke congress, and Fauji Foundation Hospital became the first hospital in Pakistan to win a WSO Angels Award.

When you ask what motivated him to turn the rock pile into a cathedral, Dr Hashim effectively tells you it was because he could. There was a dearth of stroke services for Pakistan's 200 million people and the situation in respect of mortality and morbidity was "miserable", he says. "I had the skill, I had the space, so I had to do it.

"I had seen and worked in one of the best neurology departments and stroke centers in Dubai and I had a lot of experience of establishing

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As vice president of the Pakistan Stroke Society it is my duty to establish stroke services not only in my hospital but all over Pakistan.

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neurology and stroke services. After coming back and seeing the very limited resources for neurology and stroke care in Pakistan, it motivated me to work with the same enthusiasm and commitment to establish the same services here.

"Very little had been done in the field of stroke and neurology so there was a lot of space and many opportunities. Working for the community gave me the strength and motivation to go ahead even in difficult situations."



Dr Husnain Hashim.

Besides his own enthusiasm and commitment, two things helped Dr Hashim create one of most progressive stroke services in the country. One was the good leadership he had witnessed and experienced in Dubai – particularly in the person of Prof Dr Suhail Abdullah Alrukn who is also the president of the Middle East and North African Stroke Organization, MENASO. "He's a role model for me," Dr Hashim says. "He played a major part in teaching me how to make a team and lead a team."

The other was a team that had been worth waiting for. "I was lucky, I found good people," Dr Hashim says, eager to pass on the credit to both his own team of neurologists and residents and to the many outstanding specialists at Fauji Foundation Hospital who are the reason the program has grown.

His responsibilities have grown too. Dr Hashim says, "As vice president of the Pakistan Stroke Society it is my duty to establish stroke services not only in my hospital but all over Pakistan." This duty as he sees it includes offering training and guidance to other hospitals in the region, and, in his capacity as Pakistan's national coordinator for the international stroke registry SITS since 2021, encouraging other centers to join the registry and win awards.

Dr Hashim certainly has his eye on more WSO Angels Awards and not only at his own hospital where in the first two quarters of 2024 they added two platinum awards to their tally. There are now more than 15 Pakistani hospitals in the SITS registry and Dr Hashim has filmed a video with guidance on how to participate in the Angels awards program.

Fauji Foundation Hospital remains for the moment the only hospital in Pakistan among the honors, but Dr Hashim predicts that within the next quarter or two there will be three or four more and that his hospital will realize another of his dreams – to win Pakistan's first diamond award.





Joaquín García

Leaving his legacy



Spain's "bonus Angel" leads an award-winning stroke unit and devotes himself to improving stroke care in the autonomous region of Andalusia. This self-effacing stroke champion is only the second nurse in Europe to be recognised with an ESO Spirit of Excellence Award, an honor that thrust him into the spotlight during ESOC 2024 in Basel.

THERE are six Angels in Spain, although you'll find only five of them in the Meet the Team section of the Angels website. The sixth Angel, so designated by the Spanish team of consultants, is Joaquín García, the nursing supervisor of the stroke unit at Torrecárdenas University Hospital in Almería.

Joaquín's work, both in and beyond his own hospital and region, exemplifies everything the Angels Initiative stands for. He motivated by excellence in stroke patient care, champions the importance of standardization and helps nursing teams at other hospitals raise the standard of care through training and mentoring. He is not just a vocal advocate for quality monitoring but a practical one, too — he has recorded a video explaining how to register patients in RES-Q and shares his personal phone number with those who may need a little extra help.

"Joaquín also leads by example," Angels consultant Susana Granados says. His dedication to excellence and data-driven improvement has helped Torrecárdenas University Hospital win six consecutive diamond awards.

"I have always been attracted to data," Joaquín says. "Data reflects reality. I always liken analysis to a mirror. Numbers are the only way to get a picture of what is happening and what can be improved."

Empowering nurses

For all his accomplishments, Joaquín García isn't comfortable in the spotlight

but nor can he escape it, as one of this year's winners of the prestigious ESO Spirit of Excellence Award. "I was very excited, very surprised," he says of the award that is given annually to five exceptional contributors to stroke care in Europe. "I was deeply honored."

Although he shies away from taking credit for his work, preferring to divert our attention to the all-important patients and his "super competent

team", the recognition does serve a further goal, which is to empower the nursing community to embrace new opportunities for leadership in stroke care.

"For a nurse to be nominated, to be recognized along with doctors by a global initiative is a positive thing if it helps other nurses see that it's possible," Joaquín says. "It's still a challenge for society to view nurses as



Joaquín the family man. His wife is also a nurse and their nine-year-old son intends to follow in their footsteps.

capable, independent and empowered. Even nurses themselves don't always believe it is possible."

An empowered nursing corps that is able to influence practice would however make a big difference to stroke care and healthcare, Joaquín believes. "Doctors treat patients, nurses take care of patients. And to give these patients the best quality of care, they need training, knowledge and scientific support."

His role in changing perceptions of nursing could someday become this bonus Angel's legacy.

Finding his niche

Joaquín's own story is rooted in the nursing profession. What he describes as a very lucky childhood played out in Pescadería, a community of fishermen and flamenco dancers in Almería where his family still lives. "I am very proud to come from there," he says.

His mom was a nursing technician at the local hospital where Joaquín was a frequent visitor. "I spent weekends there too, I loved it," he recalls. There was never any doubt that he too would become a nurse.

For his initial studies he chose his father's birthplace Melilla, which through one of the quirks of post-colonial history is an autonomous city of Spain on the North African coast famous for its modernist architecture. After he returned to the mainland Joaquín embarked on specialized studies in nursing management while working in a series of nursing roles in different geographical and healthcare settings – in local and private clinics, in ambulances, transfusion centers and emergency departments. The way he tells it, he continued to exchange one comfort zone for another until he became attracted to neurosurgery during a rotation in critical care and realized that this was where he could, and would, develop as a healthcare professional.

Building a network

"I started in neurosurgery in 2010. I loved the work and learnt so much," he says. "I loved working with neurosurgery patients. After three-and-a-half years, in 2013, I was offered the position of nursing supervisor in the neurology department. Our hospital started treating ischemic stroke with thrombolysis in 2014. It was a huge change. After treatment these patients would be admitted to the ICU and until the stroke unit opened in 2018 they were hospitalized on the neurology floor. We did the best we could but there was a major improvement after the stroke unit opened.



"When the first patient was admitted to the stroke unit, the whole team gathered around him, we were nervous about what to do. He may be the best patient we've treated so far because we wanted to do everything as perfectly as possible. If he didn't receive the best care, then he certainly received the most personal attention."

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My job is not to make others do what I did but to **tell my story**, to share the advantages it has brought me and to spread the word.

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The protocol the Torrecárdenas team applied with so much care had been adapted from the Virgen de las Nieves University Hospital in Granada, and they followed it strictly, also implementing post-acute care processes to manage fever, hyperglycaemia and swallowing

that they only later discovered was the FeSS protocol.

After 2019, the Andalusian Nurses Steering Committee (GENVA), which was founded to promote standardization of stroke nursing care in the region, became a platform for sharing knowledge and experience. Joaquín, who'd played a key role in the group's creation, says: "We took what was good for the unit, did our research and implemented what worked."

GENVA having expanded his network, Joaquín helped hospitals in his region

develop protocols to take care of stroke patients, and acts as a mentor to hospitals elsewhere in Spain that are developing stroke units.

His approach to this regional outreach is straight out of the Angels playbook. He says, "My job is not to make others do what I did but to tell my story, to share the advantages it has brought me and to spread the word."

Joaquín's mother, his first connection with nursing, still lives in Pescadería and yes he guesses she is proud.

"She is a proud mother," he says drily, "she is proud of my brother too."

A relaxed life waits outside of work. Joaquín met his wife when they were both working in the same clinic, and they quickly became a family. As well as being in the same profession he and his wife share a love of running and are raising two children together – a 13-year-old daughter and nine-year-old son.

The nine-year-old has already made up his mind about his future career, leaving little doubt that there is to be a third generation of nurses in the García family.

That too, is how you leave your legacy.



Oman's unstoppable doctor

For their mission to transform Salalah into Oman's first Angels Region, the Angels team in the Gulf may count on the support of a formidable ally – the country's first woman neurologist and a doctor who won't say no to a challenge.

IF you have never before heard of Salalah, let this be the moment when you add a new destination to your travel bucket list.

The capital of the southern region of Oman, the city of Salalah is located at the confluence of the Persian Gulf and Arabian Sea where it once occupied a strategic position on the trading routes for frankincense and silk. Today it is a beautiful city with rich culture, history and magnificent beaches that attract tourists from every corner of the world – especially between June to

September when the monsoon rains turn the entire region into a lush green landscape.

It was during monsoon season that the Oman Stroke Society hosted Oman's sixth annual stroke conference in Salalah this past August. This was also when the Gulf-based Angels team arrived from neighbouring Saudi Arabia for the opening chapter of an ambitious project – converting Salalah into an Angels Region.

An Angels Region is one in which hospitals, EMS and public educators work together to ensure all stroke patients have speedy access to the highest standard of treatment. The goal of the Angels Regions strategy that was launched in 2024 is to recognize 100 Angels Regions worldwide by 2027.

The journey towards ensuring that one of the most beautiful places in the world is also a safe region for stroke began with an Angels Day attended by healthcare professionals from three hospitals – Sultan Qaboos Hospital, Diwan Hospital and the city's Military Hospital. Brainstorming sessions with Oman's leading stroke champion, Dr Amal Al Hashmi, had already helped Angels consultant Sherif Ali and Angels lead Dr Sherief Oraby identify

stroke care gaps and explore ways to implement the Angels Regions strategy in Oman. Now they hoped to learn more about stroke pathway implementation in local hospitals, convey the importance of optimizing stroke care, augment the stroke knowledge of attending doctors and nurses, and spread awareness of the support they could expect from Angels and the Oman Stroke Society.

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We never before had stroke units, now we have four of them in the country.

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It was a promising start, Sherif says. They had only recently started working in Oman where, as in other countries in the Middle East and North Africa (MENA) region, stroke prevalence is on the rise and affects younger people than in other parts of the world. But in Dr Al Hashmi they have found a formidable ally.

A Canadian Board-certified neurologist trained at McGill University, Canada, Dr Al Hashmi is the first female adult neurologist in Oman and founder and president of the Oman Stroke Society. She is a senior consultant neurologist



and strokeologist and, since 2013, chief of the central stroke program in the Ministry of Health of Oman.

In a 2019 interview with Oman Television News Center, Dr Al Hashmi enumerated the signs of progress in stroke care in the country, saying: "We never before had stroke units, now we have four of them in the country. We never had national protocols and guidelines for the treatment of stroke patients, now we do have them. We never had specialized nurses in this field, now we have a lot of trained nurses."

What she failed to mention was that it was she herself who had created the stroke units, authored the stroke clinical pathway and protocols used in Omani hospitals, established the local Stroke Training Module and initiated training for doctors and nurses.

An organizer and chairperson of several regional international conferences, Dr Al Hashim is also a compelling speaker who, whether on television or in conference halls, engages audiences with her own authenticity, storytelling, and humanity.

She grew up pretending she was a doctor, she told Her Highness Sayyida Mayya Al Said on the talk show #HerStory three years ago. Becoming a doctor had been her childhood passion and she later on chose neurology as her specialization because it had two characteristics that she valued – it was both "rational and challenging". Being a vascular neurologist was even more challenging because you were constantly dealing with emergencies, she explained, but it rewarded you with opportunities to save lives.

"Challenges are a strong driver for people to work harder, achieve more, to come with different ideas, to be creative and find other solutions for problems or obstacles," she said, prompting her interlocutor to dub her "the unstoppable doctor".

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The stage is set to turn Salalah into **a landmark for stroke care in Oman.**

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Oman was in very good position in relation to stroke care, Dr Al Hashim told Oman Television in 2019. The country had the potential to become a leader in the region and "hopefully compete worldwide".

The Angels event in Salalah, timed to coincide with the stroke conference, was a decisive step in that direction. As well as being exposed to the latest developments in acute stroke management, attendees had the chance to test their knowledge in an interactive workshop comprising of up to 10 case scenarios.

The event was very successful, Sherif says. Creating a steering committee is next on the agenda, with a kick-off meeting to be held before the end of 2024. The stage is now set for the phased implementation of their strategy to turn Salalah into a landmark for stroke care in and beyond Oman, and to ensure that this wonderful city has a wonderful future.



Fighting Spirit

Stroke care transformation in North Macedonia is hindered by political instability and fuelled by frustration. But neurologist and change advocate Dr Maja Bozinovska holds fast to the dream of equal access to stroke care for all in a person-centered healthcare setting.

Dr Maja Bozinovska has an unorthodox view of what it means to live a balanced life. “Work plus work,” she says. “If I stop working I am without balance.”

The compulsion to work has propelled her onto the frontline of stroke care transformation in North Macedonia, where she founded and leads the Macedonian Association for a Fight Against Stroke, and champions change in and beyond her own city.

It can seem like a Sisyphean task in a poor country plagued by unstable coalitions and early elections and a dilapidated public health system. Because frequent changes in leadership make it hard to access support or continuity, Dr Bozinovska keeps her decade-old association at an arm's length from politics, relying on EU assistance via the Stroke Alliance For Europe (SAFE) and the European Stroke Organisation (ESO) to fund projects and symposia. The volunteer-run association doesn't only educate the public about stroke but also trains doctors and nurses and procures equipment for hospitals such as Doppler ultrasound scanners, ICU monitors and physical therapy aids.

“Frustration keeps us going,” Dr Bozinovska says. “We know we can do it; it is so simple, and we seem so

close, but we just cannot get there.” It takes small steps and an inexhaustible supply of enthusiasm and goodwill.

It helps that as well as a worker she is a dreamer. “She is that one physician who has held on to the dream of universal access to quality stroke treatment that doesn't depend on circumstance but on a well-established management system,” says Angels consultant Maria Sheverdina who has been working with Dr Bozinovska since November 2023. “There are many difficulties in Macedonia, and when you find someone who never stops believing that change is possible, you have found a treasure.”

A balanced life

The story of how Dr Bozinovska became a treasure began right here in Ohrid where she lives with her husband and two daughters aged five and 13. She recalls an idyllic lakeside childhood spent in boats and on beaches in the former Yugoslavia where her mother was a jurist and her father an orthopedic surgeon in an efficient public healthcare system.

Although her daughters don't enjoy quite the same freedoms, Ohrid remains a family city which is the reason she returned here after completing her neurology specialization in Skopje and gaining more experience in neurophysiology in Ljubljana, Slovenia.

It was after she returned and discovered the gap in stroke care that she started her patient and family support association at a strategic distance from the capital, with the intention to be “happy with life in a small city and help the country”.

“We are **guided towards improvement** but the guidance doesn't only go in one direction.”

Dr Maja Bozinovska and Angels consultant Maria Sheverdina.

Dr Bozinovska (center) with Prof. Anita Arsovska (left) and Macedonia's chief nursing officer, Sr Gordana Dimeska.



Dr Bozinovska on a lakeside outing with her daughters.

The need to work at something meaningful and beneficial to the community was the reason she became a doctor in the first place, opting to use her energy “in the right way”.

She became a neurologist through circumstance when an opportunity in anaesthesiology wasn't immediately available. She is happy with her choice: “I like it.”

She is only the second neurologist at Ohrid's Special Hospital for Orthopaedics and Traumatology St Erasmus, arriving after an interval of 15 years. St Erasmus doesn't have capacity to build a stroke unit but, with support from Maria Sherverdina, Dr Bozinovska is lending her expertise to organizing the stroke pathway and establishing a stroke unit at the General Hospital of Ohrid.

In the pursuit of a balanced life, Dr Bozinovska takes care of her patients during working hours and in her free time strives hard for equal stroke care throughout Macedonia. “It's like a hobby,” she says of projects that include a two-year study of the prevalence of stroke and risk factors in the population of southwestern Macedonia. The research went hand

in hand with awareness education and preventive examinations and a subsequent survey showed that stroke knowledge among the region's elderly population had increased by five percent.

The humanization of stroke care

Dr Bozinovska is a board member of SAFE and actively involved in local implementation of the Stroke Action Plan for Europe, a pan-European project that seeks to lower the incidence of stroke and enhance the quality of life for survivors. By assisting developing nations it aims to lessen global inequality, but Dr Bozinovska points out that the connection goes both ways. “We are guided towards improvement but the guidance doesn't only go in one direction,” she says, suggesting that countries elsewhere in Europe can likewise benefit from the resilience and adaptability displayed by their under-resourced neighbours.

She also has a sense that East European medicine is more likely to be patient-centered than medicine in Western countries.

“It's better to speak of person-centered medicine,” she says. “It's about the

humanisation of medicine and of stroke care and the idea that high-quality care should be modified by individual needs, desires, experience and expectations so ideally each person is able to fulfill their personal goals. But for decisions to be mutual, patients and their caregivers must be very well-informed.

“What I have in mind is that we have an obligation to not only share the good stuff but also the bad stuff. Some decisions have side-effects and can have unwanted results. In person-centered medicine the patient is well enough informed for mutual decision-making and shared responsibility. But for person-centered medicine to succeed, you first need to educate the public.

“This is particularly important in neurology where many conditions are incurable, and it is necessary to explain this to the patient so they can understand and accept it.”

In Macedonia, she says, it's not unusual for an older patient to address their doctor as “sweetheart” or “my child”. This informality, so at odds with healthcare cultures where patient deference is the norm, fosters closeness and democratises the doctor-patient relationship.

There's one more national characteristic that favours Dr Bozinovska's project.

“Macedonians are fighters,” she says. “We have the ability to accommodate ourselves to a situation, and make the best of a bad story.”

In difficult circumstances this chameleon-like adaptability keeps hope alive while she and others write a better story about stroke care in Macedonia.



Dr Bozinovska participating in a pathway simulation in Ohrid.



Dr Bozinovska at the Angels booth at ESOC in Basel.



Stroke's deep wounds in Kenya



As a volunteer in Kenya, Tania Sorg got to know stroke survivors living in desperate conditions. Ahead of the Angels Initiative expanding its program to sub-Saharan Africa later this year, she shares their stories.

More than 77,000 German tourists travel to Kenya annually to enjoy the diverse wildlife, tropical climate, majestic mountain peaks, winding rivers, deep blue ocean, and sandy beaches.

But when Tania Sorg went to Kenya in March 2024, vacation was furthest from her mind.

Tania (31) is a biotechnology engineer from Uigendorf who works full-time in drug approval at Boehringer Ingelheim in Biberach. Having always been interested in stroke and the treatment and consequences of the disease, she leaped at the chance to travel to Kenya on a mission to support stroke survivors and their families and educate the community about stroke.

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In this part of Kenya, **poverty excludes many from education and proper healthcare.**

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The opportunity arose as a result of Making More Health, a global initiative of Boehringer Ingelheim

with Ashoka, an organization that promotes social entrepreneurship for social change. Tania's destination was Webuye, a town located northeast of Lake Victoria, that is also the headquarters of Gaaspp Kenya, a local community organization providing support to vulnerable people including the elderly, teen moms and marginalized persons with albinism, a pigment disorder. This was where she would live for two weeks, meet stroke survivors living in harrowing conditions, share her knowledge about stroke in school and in church, and observe the unimaginable hardship of people who lack such basic needs as food, shelter and clean drinking water.

Tania reports that, in this part of Kenya, poverty excludes many from education and proper healthcare; nutrition is poor, and the local hospital





David

is so overcrowded that patients have to share beds. The hospital pharmacy seems less well stocked than the average medicine cabinet, she says.

For stroke survivors, many of whom are in their teens, facilities for rehabilitation are rudimentary at best, and they are often shunned by their own families and their vulnerability exploited due to the belief that the illness is a divine punishment for past mistakes.

But despite their poverty, Tania was struck by the warmth and friendliness of her hosts. Although they themselves had barely anything, they kept wanting to give her presents, she says. Swahili is the main language spoken in the region, but connecting with the locals was surprisingly easy: her guide and program leader Chris was on hand to act as translator, and the curiosity elicited by her blonde presence did the rest.

The experience has not only left its mark on her personally: it has also allowed her to see her work in a new light. She says: "I experienced so much gratitude and love. And I have never felt so useful in my work."

David

David is blind and lives in a windowless house with a separate hut for cooking in an area only accessible on foot. He has a son in Nairobi who is not interested in him. David spends his days sitting under a tree and relies on his sister-in-law for food.

Ruth

Ruth lives in the relative luxury of a house few can afford. When she left the hospital after her stroke she promised herself she wouldn't spend the rest of her life in a wheelchair. With the help of physiotherapy she has learnt to walk again. Highly motivated for her recovery, she walks 10 times around this 'play pen' every day, with a short break after every round. She told Tania that by Christmas she wanted to be well enough to fetch her at the gate and cook her a goat.



Ruth

After her family rejected her, **she was raised by her grandmother.** Rachel used to attend a school for the blind, **but they can no longer afford the fees.**

Naiomi

At 13 years old, cheerful Naiomi has had two strokes, and though mobile

is unable to speak. She has lost both her parents – her mom to an infection contracted when she took Naomi to the hospital – and is cared for by her grandmother.

Rachel

Rachel, 13, was left blind by a stroke at just eight months old. After her





From Kenya



Naomi



Rachel

family rejected her, she was raised by her grandmother. Rachel used to attend a school for the blind, but they can no longer afford the fees. Now, when her grandmother goes out, Rachel stays locked inside the house to avoid the risk of being sexually abused.

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When she discovered they could speak English, **Tania gave them a piece of her mind.**

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Judith

Tania found Judith with rotting fingers on her left hand. She tended to the wound and when they returned the next day, Judith spoke the first words since her stroke. Tania was appalled to learn that Judith's husband, who has 10 wives and refers to her as the 'half-dead one', has impregnated her three times since her stroke.

Do something

We thank Tania for issuing a call to action to the global stroke community by sharing the stories of Naomi, Rachel and all the other stroke survivors of Webuye.



Tania found this elderly woman lying on the floor in a hut, the smell of which told the story of neglect. No one was taking care of even her most basic needs, even though her family lived next door. When she discovered they could speak English, Tania gave them a piece of her mind. Her lecture seemed to hit the mark as, when she returned a day later, the woman's clothes had been washed and she found her sitting in bed eating.

Speaking the same language

In this remote corner of Colombia, healthcare workers found a creative way to bridge linguistic and cultural gaps and bring life-saving knowledge about stroke to an indigenous community.



THE connection between language and stroke is well-documented. About one-third of strokes result in aphasia, a language disorder that affects how people process language in their brains. When people lose the ability to understand or use language, they experience frustration, confusion and isolation.

This story, however, explores a different link between language and stroke. It sheds light on the difficulty of accessing disease information for speakers of the more than 4,000 indigenous languages in the world. These include the mind-boggling 840 languages spoken in Papua New Guinea, the 711 languages of Indonesia and the 517 spoken in Nigeria.

In Colombia, where this story is located, there are 70 languages spoken by various communities, 65 of which are indigenous. This, says Angels consultant Magda Cueto, poses a communication challenge for medical personnel in healthcare institutions.

Cultural diversity is a valuable teacher. It can inspire creativity and teach us about different ways to live in the world.

The International Work Group for Indigenous Affairs (IWGIA) states: "Each indigenous language is a unique expression of our diversity that holds a single understanding of the world . . . If we lose any of these encyclopedias of knowledge that dates back thousands of years, we suffer an irreplaceable loss that diminishes all of us."

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One such **challenge** is to be found at the northernmost tip of South America, **in the department of La Guajira.**

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But, says Magda, effective communication in medical practice is necessary to “generate empathy, helping to understand the experiences and feelings of the patient and their family members” – and linguistic diversity, however crucial for defining indigenous identity, can be a barrier to inclusive and effective healthcare.



One such challenge is to be found at the northernmost tip of South America, in the department of La Guajira. In this hidden gem of the Caribbean coast, almost 45 percent of the population is made up of five indigenous groups whose mode of communication is the Wayuu language (also wayuunaiki).

Wayuunaiki belongs to the Arawakan family of languages that developed among ancient indigenous people in South America. One of its unique characteristics is that it has ten tenses: the present-past, the near future, the general future, the future intensive, the past perfect, the near past, the current past, the former past, the remote past, and the frequentative past.

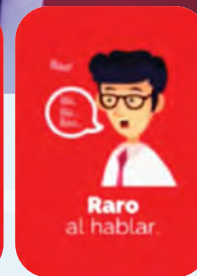
Efforts by the Colombian government to preserve the language have included translating some of the novels by Gabriel García Márquez (whose grandparents were from the Guajiro capital Riohacha) into wayuunaiki. There is also an illustrated Spanish-Wayuunaiki dictionary used in schools and Microsoft has launched a computer dictionary in wayuunaiki, opening the doors of technology to the Wayuu indigenous people. A radio service and newspaper keep the community abreast of issues concerning their culture.

Magda says that the younger members of the community who have moved away for education or work,

when they are not present. One of the challenges for the medical community is providing care for these patients when they seek help in healthcare institutions outside their communities. It is also worth noting that the majority of the Wayuu population only understand wayuunaiki orally and not in written form."

Faced with these circumstances, staff at two hospitals in the region, Maicao Clinic in the city of Maicao and Renacer Clinic in the city of Riohacha, have developed content in wayuunaiki to teach the community to identify the symptoms of stroke and what to do if they or someone close to them displayed any of these symptoms.

The content is structured around the acronym "CORRE" (meaning hurry). This serves as an aide-mémoire for stroke symptoms and at the same time reinforces



therapies due to the geographic location. Traditions and ancestral medicine also play a role; there is little uptake of classic Western medicine."

Her consultancy in this region began in 2021. Maicao Clinic is now a stroke-ready center, while a stroke service is under development at Renacer Clinic.

Magda says, "As the development of the stroke code progressed at these institutions, the need grew to educate the community about stroke."

The team responsible for the campaign took inspiration from existing educational initiatives for overcoming language barriers in relation to other pathologies, she says.

The campaign was welcomed by the community and has sparked an interest in public awareness in the medical establishment but it's an initiative that has to be sustained in order to make a meaningful impact, Magda says.

The Guajiro project for communication and multiculturalism in stroke patient care can therefore be expected to continue in the near future, the general future, and the future intensive.



serve as translators when interacting with the Spanish-speaking population. "This makes communication difficult

“As the development of the stroke code progressed at these institutions, the need grew to educate the community about stroke.”

the central message, which is to seek urgent medical care. For the campaign, videos were recorded in wayuunaiki featuring hospital staff from the Wayuu community, adorned with face paint in traditional spiral shapes. These videos are displayed on waiting room televisions, social media platforms, and other regional media. The aim is to reach as many people as possible with a message that could save lives.

Magda says that, while the stroke incidence in this community is not known, the population has a high cardiovascular risk. "They have little access to conventional health

Angels 2024 South America mentoring program

Angels South America has launched the second edition of its six-month mentoring program in which distinguished stroke experts from Argentina, Chile and Colombia provide guidance to healthcare professionals whose work has the potential to improve quality of care for stroke patients. Meet the mentors and the mentees.



Matías Alet

MENTOR: Dr Matías J Alet, Argentina
MENTEE: Gonzalo Pérez Hornos, Uruguay
MENTEE: Diego Vela, Argentina

Dr Matías J Alet is a member of the Centro Integral de Neurología Vascular de Fleni, in Buenos Aires, Argentina, and Head Physician of the Stroke Unit of the JM Ramos Mejía Hospital in Buenos Aires. He is also a full member of the Board of Directors of the Argentine Neurological Society, and member of the World Stroke Organization and the Ibero-American Society of Cerebrovascular Diseases.

He is part of the Global Angels Steering Committee. In addition he is Adjunct Professor at the Faculty of Medicine of the Buenos Aires University. He is mentoring **Gonzalo Pérez Hornos** whose project focuses on stroke in young patients through a retrospective study of the database of the Hospital de Clínicas de Uruguay. He is also providing guidance to **Diego Vela** whose work concerns the creation of an SRC at the Hospital Presidente Derqui (Pilar, Argentina), with eventual use of telemedicine support from a main hospital. This institution lacks a neurology service and a neurologist.

Q&A with Gonzalo Pérez Hornos

What is your current role?

I am a senior neurology resident in Montevideo, Uruguay. I am participating in the Angels Mentoring Program on behalf of Uruguay and together with two of my resident colleagues in neurology, Dr María Paz Rodríguez and Dr Ramiro Rodríguez.

What motivated you to apply for the mentoring program?

The motivation comes from a drive to carry out national and regional research projects to know our data and adapt our work to the local reality. From the place of the young researcher who is starting, being able to access an experienced mentor is of great value

to guide, help project ideas and make them concrete in a practical way.



Gonzalo Perez Hornos

What will be the ideal impact of your project?

Our particular project seeks to describe the young population with stroke in our country and, among other objectives, to know at what age the causes of stroke, very different in the young, begin to resemble those of older populations. The clinical value of this idea is to be able to develop recommendations on when to suspect unusual causes of stroke

and when to extend the etiological search algorithms when we reach the category of 'indeterminate' cause with classical assessment studies. This would benefit patients and optimize the use of resources.

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We found a **mentor** who seeks **to complement and guide** without imposing.

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What specific benefits do you expect to get from the mentoring relationship?

The main benefit is the experience and learning obtained by knowing efficient ways to develop research projects. Another benefit is learning from the perspectives and analytical capacity that an experienced mentor presents when approaching an idea during the process of articulating concepts. Also the possibility of publishing the results of the work and thus communicating them in order to compare them with those of other countries in the region and in turn create work networks for collaborative projects on the same theme that broaden the dimension of understanding on the subject. Authors with more experience like our mentor are essential to guide and articulate the development of these joint projects, showing from their experience the most efficient and practical way and visualizing the global scheme.



Nadia Tessore

How was your first presentation with your mentor?

The first presentation was very warm and pleasant. We found a mentor who seeks to complement and guide without imposing, to grow and enhance our ideas through active listening and making recommendations to ensure we carry them out in the most efficient way and with the highest scientific rigor. From this treatment the taste for doing this work is strengthened. Our mentor is Dr Matías Alet, who is a regional reference in stroke and with whom we have had pleasant interactions in the past both in activities in congresses and in articles and scientific projects.

Have you had other mentors in the past?

Although our project is group-based, answering particularly for me, I have not had professionals that I consider mentors in my short and recently started career. I have learned from many teachers, colleagues, patients, researchers and old and modern authors that I do not know personally. In particular I have found many instances of learning in the interaction with my peers during the residency. In personal life I think very important the advice I have received regarding enriching cultural and family development and prioritizing a balanced life. This is important in Latin American countries where doing clinical research without having protected time is common and where professional development ends up being an exhausting effort to the detriment of growth in other aspects of life.

MENTEE: **Lic. Enf. Nadia Mariela Tessore**, Argentina
MENTEE: **Jimena Haidar**, Argentina
MENTEE: **Adrieth Eliana Angulo Torrez**, Argentina

Lic. Enf. Nadia Mariela Tessore is a professor of nursing. She is teaching supervisor in the Neurocritical Care Section of the Hospital Italiano of Buenos Aires and lecturer of the Bachelor's Degree in Nursing and Specialty in Critical Care at the Favaloro University. She is also director and professor of the Neurocritical Care Course for Nursing at the University Institute of the Hospital Italiano. She will provide guidance on **Jimena Haidar's** community nursing project for primary stroke prevention in the city of Bahía Blanca, Argentina, and **Adrieth Eliana Angulo Torrez's** project – a proposal for management

and nursing strategies for the rehabilitation of aphasia.



Jimena Haidar

Q&A with Jimena Haidar

What is your current role?

I am a specialist nurse in Critical Care at the Hospital Italiano of Buenos Aires and I am finishing the Specialty in Economics and Management of Health Services. I am currently working in the Adult Intensive Care Unit and in the Nursing Education Area at the Hospital Municipal de Agudos Dr. Leónidas Lucero in Bahía Blanca. In addition, I lead the Neurocritical Nursing chapter of the Latin American Brain Injury Consortium (LABIC) and I am a teacher at several health institutions (Hospital Italiano University, Favaloro University, SATI, among others).

What motivated you to apply for the mentoring program?

The possibility of carrying out a project that impacts the community of Bahía Blanca and the region. I want to contribute to the improvement of stroke management and prevention from a nursing perspective, and I knew that having an experienced mentor in this area would be key to achieving my goals.

What will be the ideal impact of your project?

A significant improvement in the early detection and timely treatment of stroke in my region. I aspire for stroke patients to receive quick and adequate attention, which will increase their chances of recovery and reduce mortality and long-term sequelae. In addition, I hope that education and awareness in the community will lead to greater awareness about stroke prevention.

What specific benefits do you expect to get from the mentoring relationship?

I hope to gain a broader vision and effective strategies to successfully implement my project, leveraging the knowledge and experience of my mentor in the field of stroke. In addition, I seek guidance to overcome specific challenges, such as resource management and mobilization of the community and health personnel, ensuring that my project is sustainable and replicable in other regions.

How was your first presentation with your mentor?

I have known my mentor for many years and have had the opportunity to work with her on several occasions. I really admire her talent and experience in the subject. I am very happy that she is my tutor.

Have you had other mentors in the past?

Yes, throughout my career I have been fortunate to have several mentors and role models. Among them I highlight the teachers and several colleagues who guided me during my residency in critical care, those I met through LABIC and at my workplace. Each of them has taught me the importance of dedication, constant updating of knowledge and teamwork, influencing my professional development and my approach to nursing education.



Adrieth Torres

Have you ever had the opportunity to be a mentor to someone and, if so, what was that experience like?

Yes, I have had the opportunity to mentor several students and colleagues in the field of neurointensive and critical care. This experience has been extremely

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This experience has been **extremely rewarding**, as it allows me to share my knowledge and contribute to the **professional growth of others**.

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rewarding, as it allows me to share my knowledge and contribute to the professional growth of others. In addition, being a mentor has helped me reflect on my own practices and stay updated.

MENTOR: **Dr. Pablo Felipe Amaya**,
Colombia
MENTEE: **Manuel Chasco**,
Argentina
MENTEE: **Rolando Héctor Nervi**,
Argentina



Rolando Héctor Nervi

Dr. Pablo Felipe Amaya, is a vascular neurologist and director of the stroke program at Fundación Valle del Lili, Colombia. He is also Professor of Neurology at the Icesi University, Cali, Colombia, and a member of the Neurovascular Working Group of the Colombian Association of Neurology. He will provide guidance to **Manuel Chasco** whose project is a feasibility study, design and implementation of a telestroke project based in the Stroke Unit of the Pirovano Hospital, Buenos Aires, Argentina. He is also mentor to **Héctor Nervi** whose work focuses on the creation of a SRC at the Regional Hospital of Río Gallegos, Argentina.

Q&A with Rolando Nervi

What is your current role?

I am a mentee in the project to create a care network in Río Gallegos. From my position as local coordinator of the Regional Hospital Río Gallegos, I develop strategies (protocols, flowcharts) adapted to existing resources, to improve the assistance and care of stroke patients.

What motivated you to apply for the mentorship program?

The lack of formal or institutional protocols for the care of stroke patients, who were not prioritized as emergencies, and the failure to take advantage of the therapeutic effectiveness of current standardized treatments. The fact that despite not having a level of complexity in terms of existing professional resources (specialist doctors in diagnostic imaging, neurologists) to simplify the application of protocols adapted to the local level.

What will be the ideal impact of your project?

In this first stage, the result or impact of the project will be improving the identification and prioritization of symptoms, and the application of diagnostic and therapeutic procedures that will result in a greater number of patients being given the possibility for proper treatment.

What specific benefits do you expect to gain from the mentorship relationship?

Specifically, the supervision and recommendation from their experience in the application of protocols, which particularities are indispensable, and which can be dispensable for the proper implementation of the same.

How was your first presentation with your mentor?

It was through a video call. I was struck by the cordiality, and clarity with which he transmitted his knowledge and opinions based on his experiences.

Have you had other mentors in the past?

Yes. University professors, instructors during my residency and medical colleagues with whom we share activities. They influenced me through their example.

Have you ever had the opportunity to mentor someone?

I have been a teacher at the secondary level in schools, and instructor in medical residencies and standardized courses such as ACLS and ATLS. It

was a completely positive experience, which conditioned me to update and maintain interest in the activity.



Pablo Lavados

MENTOR: **Dr Pablo M Lavados**, Chile

MENTEE: **Ronald Soto Arancibia**, Chile

MENTEE: **Mackarena Zapata**, Chile

Dr Pablo M Lavados is a vascular neurologist who is Head of the Research and Clinical Trials Unit, Clínica Alemana in Santiago, Chile. He is also Professor of Neurology at the Universidad del Desarrollo, Chile, President of the Chilean Association of Cerebrovascular Diseases, and Vice President of the Ibero-American Society of Cerebrovascular Diseases. He is mentor to **Ronald Soto Arancibia** whose project concerns the creation of an integrated stroke network in the Health Care Service Metropolitano Occidente (SSMOc) in Santiago,

Chile, and **Mackarena Zapata** who is conducting research on stroke patients in Chile through analysis of DRG indicators of medical coverage.

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We have the **responsibility to bring the project to a successful conclusion** in a timely manner because **‘we cannot fail Dr Lavados’**.

”

Q&A with Rolando Soto

What is your current role?

I am coordinator of the Neurology Service at Hospital San Juan de Dios in Provincia de Santiago, Chile, and emergency neurologist at Clínica Davila in Santiago.

What motivated you to apply for the mentorship program?

Having the responsibility to change the outcomes of stroke patient care in his Health Service (the third-largest in Chile) that serves a predominantly vulnerable population.

What will be the ideal impact of your project?

Although care at the three levels of complexity is possible, they face significant operational challenges and there is a need to organize perfectly articulated care networks for the care of stroke patients.

What specific benefits do you expect to gain from the mentorship relationship?

The experience and guidance of the mentor is essential to continue despite some frustrations. We have the responsibility to bring the project to a successful conclusion in a timely manner because ‘we cannot fail Dr Lavados’.



Macarena Zapata

How was your first presentation with your mentor?

I already knew him because he is a recognized opinion leader in Vascular Neurology.

At a time when stroke is high on the agenda in many countries in South America, the mentoring program seeks to empower those who aspire to generating a significant change in stroke patient outcomes. Angels South America believe that the program provides great opportunities, not only for the professionals who develop as mentors and mentees, but also for the communities in which they develop.



Drs Gonzalo Perez Hornos, Maria Paz Rodriguez Bruno and Ramiro Rodriguez Hortonedá



The taste of success from Uttar Pradesh



Through the efforts of Ravish Upadhyah (left), hospitals in Uttar Pradesh have won 16 WSO Angels Award.

Where do you begin when your goal is to make stroke treatment available to a population of over 200 million people? Angels' consultant Ravish Upadhyah has answered this question as follows: start in one of the world's oldest cities, target 20 hospitals, and in the space of three years grow the network to 65 and counting.

UTTAR PRADESH is the cradle of Indian culture, a land steeped in history and cultural riches. One of the oldest continuously inhabited regions in the world, it boasts iconic landmarks like the Taj Mahal and the spiritual city of Varanasi. The Himalayas border the state to the north, with the smaller Vindhya range in the south, but between these mountains lies a vibrant tapestry of diverse traditions, where every corner tells a story through art, music, and cuisine.

Uttar Pradesh is the fourth largest state in India and the most populous, with its estimated 239 million people making up one sixth of the total population. The state is divided into 18 divisions which are in turn divided into 75 districts with 106,747 villages. The average population density of 828 people per square kilometer creates

the need for a robust, organized, and strategic approach to providing essential health care, minimizing complications, and improving treatment for stroke patients who reach hospitals in time.

The demands on healthcare are magnified by the fact that neighboring states are almost equally large. They

are Bihar in the east, Haryana and Rajasthan in the west, Nepal and Uttarakhand in the north, and Madhya Pradesh in the south.

Moving one stone at a time

Stroke incidence in Uttar Pradesh can be as high as 340,000 per year. At least 230 stroke-ready centers are needed





Holding up a mirror

Ravish based his case on data collected from the hospitals, and initiated simulation training to rally stakeholders around the objective of improving the stroke pathway. These simulations took place late in the evening, when there were fewer stroke champions to supervise proceedings. This would give him insight into the standard of care around the clock.

Simulation training was piloted at five hospitals – Apex Hospital, Galaxy Hospital and the Neurocity Hospital in Varanasi, Lifeline Hospital in Azamgarh, and Anand Hospital in Prayag Raj. What Ravish hoped to observe was the hospitals' readiness for stroke treatment, including their door-to-treatment and door-to-CT times, their stroke severity evaluation processes, and their use of checklists.

The debriefings that followed the simulations were eye-openers as Ravish highlighted gaps that were causing treatment delays. These events helped build consensus around improving the stroke pathway and capacity building across departments. A team was also assigned in each hospital to oversee the development and management of a stroke database.

These are some of the key mandates Ravish initiated with the hospitals:

- Creating a high impact team requires close collaboration and connection among a small team of stakeholders. To this end a WhatsApp group of stakeholders must be created for continuous knowledge sharing.
- A training calendar must be shared via the admin department (a top-down approach) for attendees to ensure they are available.
- Staff who attend training sessions must complete the course and should be required to remain in their positions for at least eight months following completion of the training. (This was proposed as a measure to overcome challenges arising from staff turnover and short contracts.)
- Responsibility must be shared and distributed among department heads to ensure continuous emphasis on training completion and tools utilization.
- Flexible training hours should be available for both face-to-face and virtual and peer-learning programs, to accommodate

fixed working hours and facilitate ownership of the process.

- Monitoring tools like checklists, the Helsinki poster and the RES-Q registry should be employed for continuous progress monitoring.
- Hold regular stand-up meetings with all stakeholders present to address obstacles and effectiveness.
- Celebrate awards and certification with all stakeholders to improve morale.

Tasting success

These efforts to improve stroke care in these pilot hospitals helped Ravish to build confidence in himself. By sharing examples of best practice from these hospitals he has managed to expand the network of stroke-ready hospital. Having set out with a goal of 20 hospitals in 2021, there are now 65 hospitals in the stroke network in Uttar Pradesh that have partnered with Angels. In many cases the investment in training has gone hand in hand with improvements in medical infrastructure, such as the establishment of dedicated stroke units and better-equipped ambulances.

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Taste the success once, your tongue wants more.

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It is another measure of the success of this strategy that hospitals in Uttar Pradesh have so far won 16 WSO Angels Awards. First among this line-up of stars is Medanta Hospital in the capital city, Lucknow, whose nine awards includes four diamonds. Lifeline Hospital and Research Center in remote Azamgarh has won three consecutive diamond awards, and there have been two awards each for the Neurocity Hospital in Varanasi and King George's Medical University in Lucknow.

Uttar Pradesh is a challenging state due to strong political and cultural influences. For Ravish the journey so far has been a test of leadership, passion, and adaptability. He remains true to his goal of ensuring every stroke patient receives the same standard of treatment and the belief that success breeds success.

In the words of India's veteran cricket captain Shree Kapil Dev, "Taste the success once, your tongue wants more." Thus the legacy continues.

to cover the 30 percent of the population with access to healthcare. Covering the entire population at risk for stroke would require approximately 755 stroke-ready hospitals.

Due to lack of infrastructure and a shortage of appropriately trained staff, the number of stroke centers falls well short of these targets.

In a resource-challenged scenario with budget limitations and demanding schedules, stroke care optimization is a Herculean task. But Angels consultant Ravish Upadhyay sees evolving a stroke-ready state as an opportunity for which he has successfully courted the support of hospitals and key decision-makers.



Starting in Varanasi in 2021, he identified 20 hospitals in six cities located in the eastern part of Uttar Pradesh, that were equipped to support a stroke service. Then he set out to topple the barriers one by one.

Some of the challenges were familiar ones – treatment delays and missed opportunities as the result of busy emergency departments, the absence of a stroke protocol, a lack of prioritization, a shortage of trained staff and a want of motivation. But the biggest challenge was changing mindsets. Ravish had to demonstrate to healthcare providers that significant numbers of patients did arrive within the therapy window for thrombolysis and convince them that it was therefore imperative that they optimize their stroke pathway.

Dare to act

Cimentando Regiones Angels Sudamérica 2024



An innovative simulation was a highlight of the event.

Energy, passion and commitment characterized the seventh annual regional meeting of the stroke community in South America.

A REGIONAL meeting in July united stroke leaders from across South America and the entire Angels team for a two-day event dedicated to transforming stroke care. The seventh annual Cimentando Regiones Angels Sudamérica took place in Chile where over 120 healthcare professionals gathered to share experiences and best practices, reinforce key messages, and drive change. Above all, by bringing together the Angels community, this was an opportunity to inspire, empower and motivate new members to commit to stroke care transformation in the region.

The event featured the participation of a prominent panel of specialists and experts in the management of stroke patients from across the region. This stellar line-up included Dr. Sheila Martins, President of the World Stroke Organization (WSO), who shared her testimony, her journey and experiences of working with health authorities. "Dare to act!" was her inspiring message.

Aligned with Dr Martins's message, the event highlighted the importance of building on the leadership of healthcare professionals, collaborating with local authorities in each region to achieve the desired standards of care, and the crucial importance of reaching patients in remote, under-resourced locations.

Dr Carlos Molina, head of the stroke research group and the neurology section at the Vall d'Hebron Research Institute in Barcelona, stressed the

need for a regional approach and the creation of interdisciplinary networks to ensure that patients reach emergency units as quickly as possible and receive appropriate treatment.

Lic. Deborah Ferreras, regional leader of Angels South America, highlighted the work of the Angels Initiative in developing hospitals to provide adequate care to stroke patients. She proposed the goal of creating comprehensive care networks and engaging all medical, nursing, pre-hospital staff, the community and local authorities to achieve this.

Lic Belén Velazquez, Angels Global Project Lead, presented the new global Angels strategy, which is centered on creating Angels Regions in countries around the world. This strategy involves local authorities, healthcare personnel from hospitals and EMS, and the community in

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The event demonstrated the **importance of working together to change the history of stroke in this region.**

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a collaborative network to ensure quality in comprehensive care for stroke patients.

Belén says: "From day one, the energy, passion and commitment of each participant was evident. We not only shared knowledge and experience, but also reinforced our bonds and strengthened our shared vision.

"This event connected countries from all over South America, that have the





same challenges, the same realities, and the same desire to achieve quality and excellence in stroke care. The synergy we achieved was impressive. Every idea and proposal was listened to and valued, demonstrating that when we work together, there are no limits to what we can achieve.

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When we work together,
there are no limits to what
we can achieve.

”

“Angels spirit was palpable at every turn. From meetings to social activities, our connection goes beyond the workplace. Together, we are giving the lives of thousands of stroke patients a chance. This necessary and encouraging encounter will help drive our new regional approach.





Dr Adolfo Savia



Belen Velazquez



Dr Sheila Martins

"We aim to establish stroke networks by developing Angels Regions that have sufficient stroke centers that cover the entire population and are stroke ready, with trained and coordinated emergency medical services and a population educated about stroke symptoms. Most importantly, this will transform the lives of countless stroke patients."

A highlight of the event was an innovative live simulation of pre- and intra-hospital stroke management and the role of the nursing team. It was led by Dr Agustín Apesteguía, leader of Angels in Argentina, Paraguay and Uruguay, Dr Adolfo

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Cementing Regions Angels South America 2024 raised the bar for stroke care in South America and demonstrated the importance of working together to change the history of stroke in this region.

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Dr Carlos Molina



Deborah Ferreras
regional leader of Angels
South America

Savia and Nurse Claudia Figueroa Gajardo, with the outstanding participation of Angels consultants Andrea Torres, Alejandro Rossi and Daiana Michel.

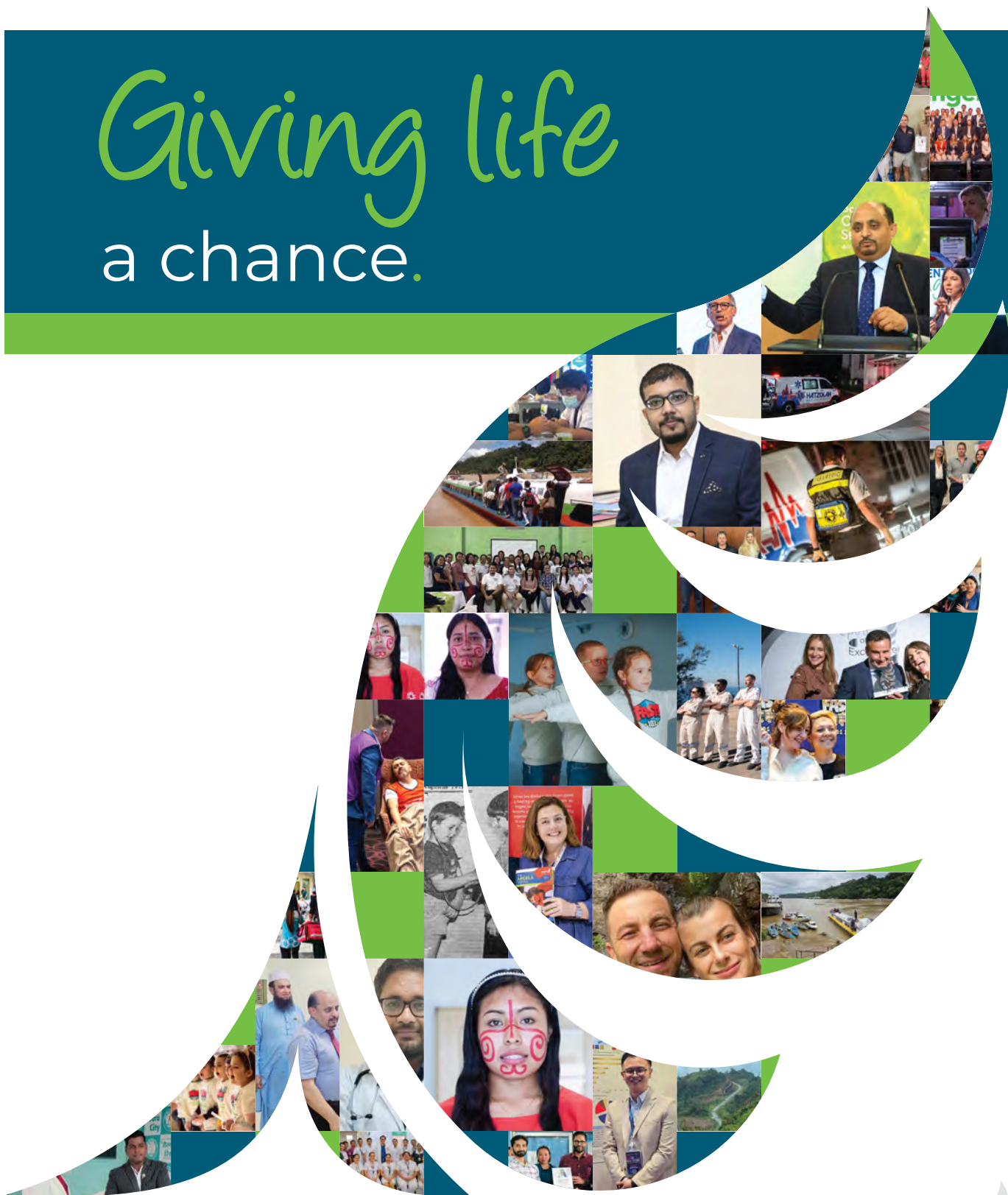
Cementing Regions Angels South America 2024 raised the bar for stroke care in South America and demonstrated the importance of working together to change the history of stroke in this region.





From left: Carlos Molina, Belen Velazquez, Débora Ferrera, Pablo Lavados, WSO president Sheila Martins, Luciano Sposato and ROPU South America medical director Viviana Rudich.

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