# The ANGELS Journey







**Second Chances**Italian stroke survivor gets
another ticket for the carousel

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The right people

# Welcome

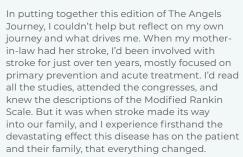
to 2024's first edition of The Angels Journey where we share the stories of our community.



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A stroke is a disaster that could be the end of life as you know it, unless on what could well be the worst day of your life, you end up being cared for by "the right person".

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Suddenly, the Modified Rankin Scale description, "Unable to attend to own bodily needs without assistance, and unable to walk unassisted", wasn't just a clinical trial criterion anymore. It meant that a dynamic woman who'd been a school principal just days before, had to wear nappies for the rest of her life. I can tell you, if you want to take away someone's dignity, take away their ability to look after their most basic needs such as being able to go to the toilet by themselves.

This same deep sense of loss also drives Angels Team Leader Alicia Arjona whose story in this edition is such a sad example of everything that could go wrong, even in European hospitals in 2023, but is also such an inspiring account of how tragedy could fuel determination.

In this Journey we share the stories of people who decided that they want to be the "right person". You will meet the team of nurses from Life Eugene Marais Hospital in Pretoria South Africa who developed and improved the stroke service in their hospital so that they themselves can be the right person for every patient admitted to their unit.

You will also read about a team of three young doctors in war-torn Ukraine who recognised that stroke is a problem that concerns everyone, not just doctors, and who took it upon themselves to raise awareness across their country through the FAST Heroes campaign.

You will also be inspired by the life stories and personal experiences with stroke that drove



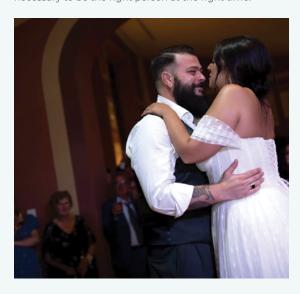


## The Angels Initiative

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

nurses Zasskia Wiese, Raquel Gonzalez and Eliel da Silva who all come from different corners of the world but who decided to be the right person when they themselves experienced what a difference that right person can make. We also take a trip to South Bohemia in Czech Republic for some insights into the mindset that is necessary to be the right person at the right time.



This edition is rounded off by a very special story of a stroke survivor called Mauro Carrucciu who doesn't believe in luck, but in a group of the right people who gave him his life back.



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

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# South Bohennia

How To Be Best

Where you find exceptional results you will also find exceptional leadership. The stroke network in South Bohemia is an example of how seamless cooperation between hospitals and ambulance services saves lives. Three doctors from the region explain how and why it works.

**ON** Tuesday 21 November 2023, Dr Caterina Kulyk, a neurologist from Linz in Upper Austria, found herself in an unusual position. She was play-acting the part of an Austrian tourist who during a visit to České Budějovice in the Czech Republic's South Bohemia region had suffered the great misfortune of having a stroke.

It isn't hard to see why an Austrian tourist might put České Budějovice on their itinerary. Its well-preserved historic centre has many fine examples of Renaissance and Baroque architecture as well as the largest fountain in the Czech Republic, and the city is famous for its beer

Being wheeled through the emergency entrance of Hospital České Budějovice during a stroke simulation workshop, Dr Kulyk felt disoriented. "I was horizontal," she explains, "and I couldn't see where I was being taken. I felt confused. Even as a healthy person it was dematerialising; if you've had a stroke, it must be extremely confusing to see nothing but ceilings."

This patient perspective is one of the factors that has influenced stroke care at Johannes Kepler University since the cross-border simulation exercise last November.

Angels consultant Martin Liptay explains how the simulation came about:

"During ESOC 2023, Robert Havalda (Angels team leader) and I were approached by a Czech neurologist, Dr Michaela Schober, who at the time was working in Linz. Dr Schober asked if we could do a simulation training in her city. Because we don't have a consultant there, we thought it would be a good idea to run a simulation training in the comprehensive centre in České Budějovice, which is one of the leading stroke centres in the Czech Republic, and invite some stroke centres from the Upper Austria region to join us."

Dr Schober had left Linz by the time the invitation went out to five Austrian hospitals including Johannes Kepler University, where Dr Kulyk, an Italian neurologist from Padua, had just succeeded the esteemed Dr Milan Vosko as head of the stroke unit and was focused on improving their doorto-needle times.

"Our times had gotten better," she says, "but there was still room for improvement."

"At ESOC we had heard about České Budějovice's excellent door-to-needle time. We looked forward to exchanging points of view and learning from the experience of our colleagues, as we do in fact work in neighbouring regions, sharing hills and valleys. We'd also heard that the chief neurologist Dr Svatopluk Ostrý was very good and very pleasant, so this was a very good opportunity."

Three colleagues accompanied Dr Kulyk to South Bohemia – a neurologist who was new to stroke and two residents respectively at the beginning and end of their residency. The trip from Linz to České Budějovice took less than two hours.



#### Better, faster, safer

The very good and very pleasant Dr Svatopluk Ostrý became head of neurology at Hospital České Budějovice in 2015, having arrived here in 2012 after 11 years as neurophysiologist in a neurosurgical team at the celebrated Central Military Hospital in Prague.

He'd moved to South Bohemia to change his professional and personal life, he says. "Here was a large hospital in quite a big city but not as big as Prague. Prague was too large for me, I needed something smaller."

Here, too, was an opportunity to start something new, to tackle another big topic that was nevertheless connected with his years in neurosurgery.

"So it was in connection with changing my professional life and improving my personal life," he says. In the pursuit of these goals he turned his hospital into a landmark for stroke care, treating more patients with thrombolysis annually than any other facility in the country, with a median DTN time between 15 and 18 minutes, carrying out the second-highest number of mechanical thrombectomies per year, and winning three ESO Angels diamond awards.

Dr Michaela Schober, who is now pursuing a Master of Advanced Studies in Stroke Medicine at the University of Bern, shared pictures of the November simulation on LinkedIn, and captioned them with a description of České Budějovice as "the best Czech hospital".

Which invites the following question to Dr Ostrý: In a country acknowledged for excellence in stroke care, how do you become best?

The answer lies in improving case by case. "It is based on daily practice," Dr Ostrý explains. "It is about reviewing every case, every day, going over it again and thinking about ways it could have been better. You have to do an audit of every case, from diagnosis to treatment, to find the weaknesses and adjust the rules so you can avoid them."

When he arrived in South Bohemia 11 years ago, changing mindsets about stroke required some "passionate" discussion, he says. Not everyone was equally willing to hear critical feedback or to accept that there were better, faster and safer ways to do things.

"We had to convince people to think about stroke patients differently – to try to look at each case as an opportunity to help them, to recognise that when a stroke patient comes in, we are here to change their fate. And that if we decide quickly what to do, and then do it together like one man, we can help them more.

"Now the patients that come to us are the same as 10 years ago, but the process – the sequence of diagnostics and decisions – is a bit different and hopefully better."

### Now our cooperation is perfect

Things are very different and vastly better, if you want the view of Dr Robert Rezek, lead physician of the

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Becoming a neurologist was just his **good fortune,**Dr Rezek says.

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stroke unit at Hospital Písek, a primary centre located in the town of Písek about 45 minutes north-west of České Budějovice. Hospital Písek is one of the Cezch Republic's 40 diamond hospitals, a distinction it achieved for the second time last year. Its average DTN time is a first-rate 17 minutes.

When Dr Rezek came here from Prague about 13 years ago, a stroke care system was already in place but it was following Dr Ostrý's intervention at České Budějovice that cooperation with that centre improved and stroke patients in the region could receive high-level comprehensive care, he says.

"Previously we were unable to provide quality care to patients with large vessel occlusion. However, since 2013 the whole stroke team at České Budějovice changed and now our cooperation is perfect and the rate for mechanical trombectomy has increased dramatically."

Perfect cooperation between primary and comprehensive centres hinges on a well-trained ambulance service not only capable of transferring patients between centres as efficiently as possible, but also able to select the right patient for the right hospital.

Educating paramedics improves the whole system, Dr Rezek points out. To that end he became a student himself in the autumn of 2022 when he joined an Angels-facilitated advanced stroke life support training workshop in Budapest to become a certified ASLS instructor.

"He's a great teacher," Martin Liptay says, and his lessons are popular with the region's paramedics who gladly receive the insights of a leading stroke physician.

The 18-year-old Robert Rezek who decided to become a doctor did so from an impulse to "help people and improve the world". Becoming a neurologist was just his good fortune, he says, a sequence of lucky coincidences that brought him from Prague to Písek to help this hospital improve its stroke care programme and help develop South Bohemia as a safe place for stroke.

Working outside a big city like
Prague comes with a greater burden
of responsibility, Dr Rezek says. "In
Prague you can rely on others to help,
but here in our region we have to take
care of the patients ourselves."

For this reason he values the sense of community fostered by Angels, and the opportunities for "sharing struggles and successes with other hospitals and inspiring each other".

His first priority after he arrived in this historic town that straddles the river Otava was to change the logistics for the patients, Dr Rezek says.

"Previously, the team met the patient at the ambulance and a physical examination was completed before



the patient was transferred to the CT room. This took time. Now, with better selection by the paramedics, we're ready for the patient before they arrive and we receive them in the CT room. We do the scan first, before the physical examination, and we don't wait for laboratory results before commencing recanalisation."

Finally, treating the patient at CT cuts more precious minutes from the door-to-needle time.



### A massive jump forward

was a huge step towards reducing treatment times," says Dr Marek Slabý who, as well as being president of the National Association of EMS, is director of the EMS in the South Bohemian region and represents the district Tábor in the Senate of the Czech Republic.

hospitals and ambulance services has had a significant impact on treatment times, Dr Slabý says. He was involved in discussions leading to the formation of a stroke network in Czechia, and is satisfied that disabilities as a result of stroke are decreasing as a result. Defining the stroke centre network and putting in place rules for triage was a massive jump forward in stroke

communication and triage to the correct hospital were agreed upon with the stroke centre in České Budějovice, all the key parameters improved drastically and patient transport to small non-treating hospitals were almost completely eliminated. Knowledge of the proper terminology also helped paramedics to communicate more efficiently with

a positive impact on prehospital stroke care quality thanks to the feedback derived from the collection and evaluation of patient data. "It is important for people to see what they

The EMS of the South Bohemian region, which has won three platinum and one diamond award, was founded in 2005 and after almost two decades in the director's seat Dr Slabý can count on a strong team to relieve him of day-to-day tasks. Still, he has an agreement with the political chief of the region that he will step down and



### We are proud of being an example to others

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work as a regular EMS physician should his other responsibilities become too onerous. He has however mastered the art of switching between his many roles and finds that his experience as a politican increases his understanding of the connections between health and social issues.

He has also been able to influence discussions on cross-border collaboration, which he says is very important for patients. "Because of tourism, cross-border work and cross-border commutes, for example for shopping, it is essential to communicate and collaborate, " Dr Slabý says. Agreements are already in place with Germany and Austria, and there are also agreements between individual regions such as South Bohemia and Upper Austria – whose citizens, as Dr Kulyk pointed out, look out on the same mountains and valleys.

#### Points of comparison

"Continuous training of our paramedic staff is essential," Dr Kulyk says. Besides her insight about the mindsets of arriving patients and using stopwatches in the hyperacute phase as a reminder that time is brain, she intends to follow the example of Drs Ostrý and Rezek and prioritise stroke training for paramedics.

"After optimisation of pre-hospital triage, meeting patients directly in the CT scan would be the next step to shorten door-to-needle time," she says.

"At the moment we feel that patients still do need a triage in the emergency

room to rule out stroke mimics. We also use this first in-hospital assessment to decide whether to send patients to CT or MRI. Our acute stroke MRI protocols are short (10 minutes) but still take longer than doing a CT. The challenge is to find a golden midway between very quick and very accurate"

Conceding that not all processes can be transferred to another facility without adjusting to the conditions, Dr Ostrý nevertheless maintains that the main steps can be copied within the framework of proven improvement.

"We are proud of being an example to others and we were very happy to show them how it is possible to do it," he says. But cross-border collaboration is a secondary effect, and raising the standard of care in South Bohemia remains the primary goal. To this end he also serves as a member of the Angels steering committee and is the ambassador for the FAST Heroes awareness campaign in the region.

#### **Nourishing empathy**

Dr Ostrý grew up in northern Moravia in eastern Czechia and attended a school where the focus was on mathematics and science. Most of his school mates went on to study economics, maths and physics; Svatopluk Ostrý was among the few who chose medicine as their career. He was chiefly drawn by the potential for applying rules to real life, and for using knowledge to impact the lives of others, he says.

Neurosurgery offered the possibility for logical argument, quick decision-making and direct action, and he has found similar characteristics in stroke care. "You have to decide whether to treat or not and which way to treat," he says. What makes it even more interesting is that even with guidelines a grey area remains so you cannot in every instance be absolutely certain which option is best.

Dr Ostrý's research focuses on implementing neurophysiology into diagnostic process in acute stroke and exploring a third option for treating acute ischaemic stroke, namely removing clots via microsurgery in cases where mechanical thrombectomy has failed. His previous practices in neurosurgery and neurophysiology are in play as he teams up with his Hospital České Budějovice colleague, renowned neurosurgeon Dr Jiří Fiedler, among other things to develop a protocol for clot removal in an intracranial procedure. Their joint output has brought the world's attention to the trailblazing work being carried out at their hospital.

It stands to reason that Hospital České Budějovice is a magnet for those seeking professional development in a region where physicians such as Drs Ostrý, Rezek and Slabý are providing leadership in all aspects of stroke care. They are soon to be joined by Hospital Jindřichův Hradec, a newly certified stroke centre in another historical town about 42 km northeast of České Budějovice.

Under Dr Ostrý's wing future stroke physicians can expect more than professional growth: there is emphasis also on personal development. The idea is to nourish the capacity for empathy and the ability to look at problems from other people's perspective, Dr Ostrý explains.

"We are not all the same and this raises the potential for misunderstanding. We may all have the same problem but look at it from different points of view. Each person's hierarchy of what is important is different, and to work together you have to know what others regard as less or more important in order to understand them better."

That, too, is how you become the best.

# Stroke Awareness

The Rule Of Three

With stroke awareness as their common ground, these three young neurologists from different parts of Ukraine have discovered both friendship and fellowship. They talk about making FAST Heroes part of their awareness programme, why stroke is everyone's business, and why knowledge that can save a life has never mattered more.

**THE** number three has always been invested with a mysterious power. The shortest and most memorable pattern detectable by our pattern-seeking brains, the number three has been used to express some of humanity's noblest ideals – such as the French Revolution's cry for liberty, equality and fraternity, or the Olympic motto: swifter, higher, stronger.

The rule of three is itself captured in three words, in the Latin phrase *omne trium perfectum*, meaning everything that comes in threes is perfect, or, every set of three is complete.

The spell cast by the number three lends extra charm to meeting a trio of 20-something neurologists on a mission to educate the citizens of Ukraine about stroke.

Meet, in no particular order, 25-yearold Dr Oleksandra "Sasha" Holod of Kamianets-Podilskyi in western Ukraine; 25-year-old Iryna Sheredko from Novoyavorivsk near the border with Poland; and 28-year-old Yuliia Mykolaienko of Sumy Central City Clinical Hospital near the northeastern front.

They are close friends as well as colleagues, but if you imagine they have been best friends forever, you'd be wrong. Their first and so far only in-person meeting took place in April 2023 at the Young Stroke Physicians School held in Kyiv.

"It was five days of learning, lectures and coffee breaks," Yuliia says. It was during those coffee breaks that the first ties of friendship were forged, and common ground was established.

There first joint project, initiated by Sasha, went live just 11 days after the school ended. Timed to coincide with stroke awareness day in Europe on 9 May, they created an Instagram account for the Ukrainian Stroke Medicine Society (UTIM) as a platform for sharing information about stroke. Then they took the platform offline, to schools and town halls and, on occasion, air raid shelters, with their public educational project, kNOW\_STROKE

Their reasons were clear: "In Ukraine there is quite a low level of public awareness about stroke, leading to higher mortality and disability from stroke compared to countries in Europe. It is especially important in times of conflict for ordinary citizens to have the knowledge needed to manage many different emergency situations."



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The FAST Heroes experience is very vivid

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EVERY set of three may be complete, but for their project to have the reach they envisaged, Yuliia, Iryna and Sasha needed others who shared their vision. They are deeply grateful to those that did.

"Twenty participants from 16 regions of Ukraine joined the project, investing their efforts and time simply so that more people would know how to save the life of someone with a stroke. The project was driven entirely by the enthusiasm of the participants who did not expect any financial reward. Since they were also stroke unit doctors or medical interns with experience of such patients, they all understood that public awareness would increase the number of people who would seek help promptly if they or someone nearby had a stroke."

A trial project in May reached 350 high school students and cleared the way for a more ambitious undertaking – full implementation of the kNOW\_STROKE project that would target more regions and a wider age category. This was how it came about that Yuliia, Iryna and Sasha made the acquaintance of a family of superheroes who have been locked in battle against the "evil clot".

With the support of Angels consultant Lev Prystipiuk and communications specialist Anastasiya Klysakova, they made the FAST Heroes awareness initiative part of their education campaign and, in the course of 50 events in 16 regions between September and December, discovered something educators have long known – that it is easier and decidedly more fun to impart new knowledge to primary school children than to groups of all-knowing teenagers.

We missed Iryna **very much.** 

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"The FAST Heroes experience is unusual but very vivid," Yuliia later wrote in an article shared with Angels. "The kids very quickly noted the peculiarities of the main characters and in the process of learning logically came to conclusions about how stroke manifested in each of them, even before I told them about it."

Undeterred by air raid alerts that punctuated lessons in cities in northeastern Ukraine, the kNOw\_STROKE project added 50 dots to the map on which the World Stroke Organization records stroke awareness activities around the globe on their website. And the doctors who started it all gained some valuable insights about teamwork:

"Throughout the project we had the opportunity to realise that helping a stroke patient is the result of teamwork, and we are extremely happy to be a part of this great inspired team. Perhaps this is the key idea that we took away from our collaboration with the FAST Heroes project and other participants – that the issue of stroke concerns all of us, not just the medical community, and only through teamwork on every front can we achieve more."

#### It's something magical

The kinship formed during coffee breaks has continued to grow via an exchange of text messages as the three co-create content for the UTIM Instagram account, but they don't only talk about projects, they also talk as friends, Sasha says.

Right from the start, over coffee in Kyiv, they had talked openly about their work and shared experiences, including sad ones

She'd found it strange at first to be so forthright even about painful everyday situations, Yuliia says. "In my previous experience, you only talk about the good things and there is silence when things go wrong. But it is very important to understand that we all have the same problems, that it is okay, that it's normal."







Although they keep in touch constantly, they haven't all three been in the same city since last April. Yuliia and Sasha did meet up in December when Sasha came to Kyiv for a workshop. They say: "We missed Irynavery much."

YULIIA, Iryna and Sasha became neurologists via different pathways. Iryna followed her gynaecologist grandfather into medicine from a sense of wanting to help others. Neurology offered the attraction of the unknown: "There was a lot to learn about disease etiology, opportunities to explore and discover something new."

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To conjure up more of this magic, they need more stroke patients to reach their hospitals within the treatment window

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Yuliia was fascinated by the human brain and as an intern became aware of the rising interest in stroke care in Ukraine: "Thrombolysis was becoming more widely used, there was lots of information, and more and more questions. It was new, a first in neurology, and it impressed me very much."

Sasha was going to be a surgeon but during her internship observed the transformation in a patient who had undergone thrombolysis for ischaemic stroke. "It changed his life," she says. "He got better."

It is at this point that their pathways intersect. Iryna says: "With access to

thrombolysis and thrombectomy there is the possibility of someone coming in with hemiplegia and within hours you can have a healthy person. I realised I could help these people.

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It's something magical

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And Yuliia: "It is great – it is something magical when someone changes so they can speak to you. They came in with hemiplegia, and then an hour later they are shaking your hand and saying thank you, doctor."

To conjure up more of this magic, they need more stroke patients to reach their hospitals within the treatment window, and they're not waiting for someone else to make that happen.

Much as one might admire their determination to raise stroke awareness despite the war, the truth is that it is also because of the war.

"We have a lot of wounded soldiers," Iryna says, calling to mind heartbreaking images of fighters returning home with devastating, lifealtering injuries. "We don't need more disability as a result of stroke."

Knowledge saves lives, Yuliia says. "Especially now when lots of children are with their grandparents, they may be the only ones who can call the emergency services, and they have to know what to do.

"At this moment, any knowledge that can save a life is important."









# Stroke Champion

### Zasskia Brings Her A Game

Making a seasoned trauma nurse with bossy-big-sister energy responsible for its stroke programme has turned out to be a tipping point for a provider of private healthcare services in South Africa.

**WHEN** she runs out on the left wing for the Alberton Madeliefies, the name on her black-and-yellow player uniform reads "NURSIE". But away from the rugby field, that's about the last thing anyone should have the nerve to call Sr Zasskia Wiese.

There is nothing meek about the trauma nurse steeped in blood, guts and adrenaline or the national stroke coordinator for one of South Africa's foremost private healthcare groups who has steered the group from 0 to 32 WSO Angels Awards in just over a year.

It's a role she accepted in November 2022 – just months before a gold award for Netcare Alberton Hospital broke the drought for the Netcare group. Since then, the newest hospital in the group has claimed its third diamond and Netcare hospitals have collectively reeled in 12 – three more than the rest of South African hospitals put together.

Zasskia is clear that more awards mean a more positive impact on vulnerable lives and that every chance to win an award is a chance to do better for patients. It is with this in mind that she monitors every hospital every week to keep track of their door-to-needle times and stroke pathway adherence. It's why stroke teams are encouraged to do caseby-case reviews in multidisciplinary meetings, why data collection isn't optional, and why, at least for now, she is capturing prehospital data herself. (Data collection for the group's ambulance service, Netcare 911, began

relatively recently, but late last year, the KwaZulu-Natal region broke the ice with two consecutive EMS Angels Awards. She's keeping a close eye on her "new baby".)

Zasskia doesn't hesitate to say she likes to win: "I am very competitive; I like to be first. I am very determined; if I want something, I go out and get it, and I don't settle for second best."

The record shows that even when she's had no choice but to go with option two, she has turned a compromise into victory.

#### Never say never

Nursing wasn't Zasskia's first choice after she finished school. At 17, as her best friend lay dying in her lap following a freak accident on a farm road, she'd made up her mind to become a doctor. But admission to medical schools in South Africa is famously competitive, and when Zasskia failed to secure a place on her first attempt, she opted for a few years of nursing before trying again.

But nursing wasn't doctoring, and Zasskia lasted just one year in nursing school before dropping out and purchasing a plane ticket to the



UK. While working as an assistant restaurant manager, she enrolled with an agency that placed people in casual jobs on their days off. She disliked routine, and the suspense of getting on a bus without knowing what she might be asked to do at the other end fed her craving for the unexpected. Some of the assignments involved providing palliative care to elderly patients - the kind of work that schools you in patience. When she returned to South Africa after two years abroad, her perceptions about nursing had changed. Recognising that it was "caring, compassionate work", she resumed her studies at Arwyp Medical Centre in Kempton Park.

### I make things happen,

and I am good at my job

Still, the all-out war of trauma nursing wasn't for her - or so she decided on day one of a third-year rotation through the emergency department where a patient had been admitted after taking an overdose. He'd been given a rapid-acting emetic, and Zasskia was giving him warm water from a jug when projectile vomiting hit her face and soaked her hair. Never again, she decided. But in the end, the mix of adrenaline and the unexpected would prove irresistible.

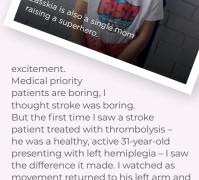
For her training in trauma and emergency, Zasskia was assigned to Netcare Milpark Hospital in Auckland Park, Johannesburg, where, eight months after becoming a trauma sister, she was invited to apply for the position of trauma unit deputy manager. After just eight months in that position, she successfully applied for the manager's role.

Asked to account for her rapid rise, she says simply: "I make things happen, and I am good at my job."

#### Mission accomplished

Stroke care wasn't her first choice either. When the management of Netcare Milpark Hospital gave her three months to turn the hospital into an accredited stroke centre, she didn't know where to begin, and she wasn't that keen

"I'm a trauma nurse," she explains. "I deal with blood and guts. When you work in a trauma unit, you want



leg. Afterwards, I stood next to his bed,

and we both cried."

With the help of the Angels Initiative's Renathe van der Merwe, Zasskia assembled a team and trained over 500 doctors and nurses, and three months later, stood in the same boardroom explaining how capturing data in the stroke care improvement registry RES-Q would help stroke teams identify stroke pathway gaps and fix them.

When we caught up with her on a Monday morning three years later at Netcare Alberton Hospital, where she's been trauma programme manager since November 2022, she was busy loading hospitals onto the recently launched new and improved RES-Q platform. Netcare has 38 hospitals with emergency departments that can treat stroke patients, she explained. By the end of the day, every one of them would be registered on RES-Q, ready for continuous quality monitoring to support their stroke care improvement journey.

#### Raising heroes

As well as managing a trauma programme and coordinating stroke care at up to 38 hospitals, Zasskia is a single mom raising a superhero. The little girl with her mother's thousandwatt smile dreams of becoming a teacher or a helicopter paramedic nurse and wears her FAST Heroes T-shirt everywhere. Zasskia introduced the FAST Heroes stroke awareness campaign at home, and the eightyear-old quickly mastered the signs of

Zasskia recalls how, when she was fumbling her words during a ride home from school, her daughter instructed her to look her way.

Mom had to keep looking ahead as she was driving, she explained. But her passenger insisted: "Look at me! Now smile!"

Zasskia (far left) with some of

Alberton's rugby-playing Madeliefies.

That was Zasskia's cue to reassure her little FAST Hero that Mom was not having a stroke; she just needed a break.

Time off typically means going to the gym, cooking supper and supervising grade-three homework, but switching off is more easily said than done. Zasskia's phone is rarely out of reach, not even when she is in the shower. During a two-week camping trip this past summer, she agreed to leave her phone in the caravan and check it only twice a day. "It was very difficult," she

On the upside, this level of dedication communicates itself to others, and as excitement about stroke care improvement spreads throughout the group, her job becomes easier.

#### It's a draw for the daisies

As for the rugby, it started as a joke.

Zasskia's partner Anton plays in the over 35s team of the local club and wives and girlfriends generally support them from the sidelines. But during an impromptu game of touch rugby last winter, a surprise display of grit and talent led to the establishment of the Alberton Madeliefies women's rugby

They soon had a coach, and by September 2023, they were participating in their first national competition.

It was a baptism of fire. For while the Madeliefies (their name means "daisies") were no shrinking violets, their opponents had the physical advantage. Two dislocations and three concussions in, they were considering their options, Zasskia says. "We were getting hurt."

But the Madeliefies stood their ground, and the game ended in a draw. Their left winger has yet to get onto the scoreboard, but it can only be a matter of time: "Nursie" won't settle for second

# Mauro's story

### Another ticket for the carousel

A second chance is "a new mandate" for stroke survivor Mauro Carruccciu who owes his life to finding the right people in his most vulnerable moment. He now shares his story in training workshops to help ensure that other stroke patients will find the right people too.

MAURO'S story begins as one of the most difficult years in modern Italian history is drawing to a close. The country is in lockdown, a measure aimed at impeding a renewed spike in Covid infections feared over the holiday period.

In one of the worst affected countries in Europe, Covid has already claimed almost 70,000 lives, and deaths in the second wave are surpassing the grim toll reached in the first. It is hoped that the recently launched vaccination programme will mark the beginning of the end of the nightmare, but during December 2020, the virus claims between 600 and 800 lives every 24 hours.

Despite the curfew and a ban on interregional travel, management

engineer Mauro Carrucciu has to go to work. His girlfriend, language teacher Julia Mete, is in Canada visiting her ailing grandfather, so Mauro wakes up alone in his apartment overlooking Florence's famous cathedral with its magnificent Renaissance dome.

He raises his head from his pillow at around 6.30 am. He's feeling dizzy and when he tries to get up, he discovers he cannot rely on his left arm or left leg. He has no idea what is happening but instinct tells him to unlock the latch

on his front door if it's the last thing he does, so he hurls himself across the four-metre stretch of parquet flooring, his phone held between his teeth.

Before he dials the emergency number, Mauro tries to call his mom. She knows where he lives and would be able to direct an ambulance to his address. But it's early in the morning and she doesn't answer. Mauro feels his mouth fill with saliva as he dials 118. He is still able to talk but he is starting to slur.

FAST forward to September 2023 and Mauro and Julia's hipster-chic wedding in one of the coolest wedding venues in Tuscany – the Limonaia at the Stibbert Museum in the Florentine hills. It's a joyous occasion, a celebration of both love and life, but as far as Mauro is concerned, two of the guests are more important than all the others – the woman who gave birth to him in 1987, and the one who 33 years later gave him a second chance.

Dr Angela Konze attends with her partner, emergency nurse Rita Marino, who was the first person to see Mauro when he was wheeled through the doors of Hospital Santa Maria Nuovo shortly after 7 am on 29 December 2020





"Mauro was brought to the hospital by the EMS," she says. "They called ahead to let us know they were bringing a young man with leftside hemiparesis whose last time seen normal wasn't known. I immediately activated the stroke pathway for a case of wake-up stroke."

For ED physician Dr Monica Ciaccheri, exhausted at the end of a long night shift, the timing could scarcely have been worse. They'd have to rely on adrenaline to get through the next 64 minutes.

She recalls, "Mauro couldn't really talk. I tried hard to communicate with him, but he couldn't move his left arm and couldn't speak. Somehow I realised that it could have been a wake-up stroke. We had to act quickly. Above all we had to keep talking to him to show that we were calm which in reality we were not."

The ruse worked. Mauro says, "I was aware that there was an emergency. around me, that they were dealing with an urgent matter, but they also had the calm of someone who knows what they are doing. I don't remember stopping for a second, it was as if they had put me on a flying carpet."

I didn't become a better person, I am the same asshole as before.

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THE flying carpet carried him to radiology where Dr Angela Konze had stepped in to help out a colleague from the night shift. When the first CT scan offered no explanation for Mauro's symptoms, the flying carpet continued at even greater speed to the MR system room for an MRI exam. Here it was confirmed that Mauro had

had a stroke and that, despite the time of symptom onset being unknown, the treatment window had not yet closed.

As the ED doctor on duty, it was Dr Ciaccheri who made the decision to treat. Though not a strokologist, she could draw on the learnings from Angels workshops in the preceding months and the protocols she carried in the pockets of her white coat.

"We were talking about a young man – it was a must," she says. "I said to myself, 'I'll never be afraid anymore' because I was certain it was the only thing to do."

With the Angels stroke bag on hand, Mauro was treated on the spot before being transferred, first, to the emergency department under the watchful eye of Dr Francesco Prosperi lovi, and then into the care of internal medicine physician Dr Vieri Vannucchi in the ICU.

They were delighted by Mauro's recovery, Dr Vannucchi says. "Even in a moment of extreme difficulty, when Covid patients filled the ICU and we didn't even have any monitors available, we managed to take care of Mauro the best way possible thanks to the great collaboration between all the professionals."

Mauro was the good news the team needed, Dr Vannucchi suggests: "In that moment, in which due to Covid everything was going wrong, Mauro went well."

IN Canada, Julia greeted the news with disbelief. "I couldn't believe that someone who seemed totally fine was telling me that he just had something that I didn't even think was possible. I felt very guilty that I wasn't there with him, that he did this by himself.

"My biggest fear of course was that it was going to happen again. I was scared he'd never be the same, that his outlook on life would change and that he would no longer be that positive happy person. I actually think if anything it did the opposite; it made him more positive, more optimistic in a lot of ways."

"I didn't become a better person,"

Mauro says. "I didn't become wise, I didn't see God, I am the same asshole as before. The only thing that has changed in my life is that I stopped doing stuff I don't want to do. I just give different priorities to things. I don't waste any more time."

His second chance is a new mandate, he says. "It's another ticket for the carousel. I am here and I was able to get married, buy a house, advance in work, have children in the future – all things that might not have happened if it weren't for this team."

With 16 ESO Angels Diamond Awards, Hospital Santa Maria Nuovo is one of the leading stroke centres in Europe. Within a year of enrolling with Angels in 2018, it doubled its recanalisation rate, reduced its door-to-needle time by half and collected Italy's first diamond award. Since then the bright spot at Hospital Santa Maria Nuova has continued to spread its light.

Dr Angela Konze is a formidable stroke educator whose innovative and dedicated work has impacted stroke care throughout Central Tuscany. Since recovering from his stroke, Mauro is a regular participant in workshops and training meetings. "He has enriched our lives," Angela says. "When he shares his story we think no better learning is possible. For all of us."

MAURO'S stroke survivor story is also the story of an enduring friendship that began almost from the moment he arrived at Santa Maria Nuova. He recalls "entering the hospital and finding not a group of people but a team". Hearing the doctors joke among themselves was comforting, he says. "I don't know how to explain it; it made them seem less like doctors and more human."

"Of course we are not just doctors, we are also human beings," Angela says. "Mauro is a patient of whom we are proud, and he's also become a friend. Then we got to know Julia and we went to their wedding which was emotional for us. A wedding is always emotional but if you remember that three years earlier it could have gone completely differently, it changes everything."









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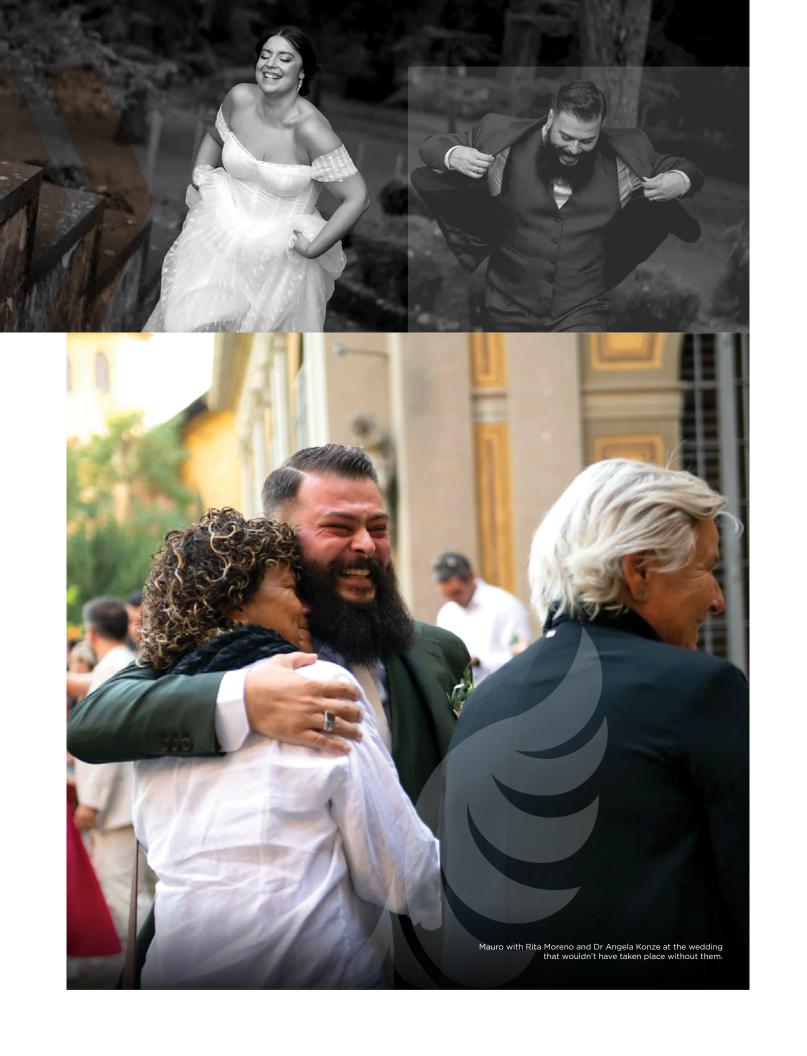
Seeing Angela and Rita arrive at their wedding was a special, beautiful moment, Julia says. "They were the first two people I saw, I was still in the car. I saw them and thought wow, this day would never have happened without these two people and now they're here with our families."

Mauro is adamant that his stroke story is not one of good fortune, but of a group of people that took deliberate action to become the right team.

He explains: "I always say being able to call the ambulance was lucky. But from that moment on you shouldn't talk about luck – from then on it's about finding people who know what to do.

"I met people who gave me my life back and gave me a second chance, but not because I was lucky. I don't consider myself a luckier person than others, I only consider myself a person who found the right people.

"And I hope that whoever walks through that door finds the same people, the same team and the same passion that they put into their work."





# Stroke Survivors

### The View From The Other Side

Raquel Gonzalez of Montevideo, Uruguay, had a stroke minutes away from the hospital where she has been a nurse for three decades. In São Carlos, Brazil, Eliel da Silva left his hospital a nursing technician and returned a few hours later, a patient. They describe the shift from carer to being cared for, and share what they learned from being on the other side.

**SHORTLY** after 6 pm on Monday 13 February 2023, Eliel da Silva was walking home from the hospital where he works as a nursing technician but where on this occasion he had gone to resolve a personal matter. It was a warm, muggy evening, typical of the late summer weather in São Carlos where Eliel lives with his wife Jeane and their three children – 19-year-old Gabriel, 13-year-old João Pedro and three-year-old Kaleb.

Eliel followed his older siblings into nursing, and he has no regrets. His first job after qualifying as a technical nurse at Escola Ateneu, was at Santa Casa de São Carlos where he started on 1 June 1994. When he joined "the best team in the world" at UNIMED São Carlos 14 years ago, he had no idea that his co-workers would some day save his life.

Eliel had been walking for about 3 km when suddenly his vision darkened,

his head throbbed with pain, and he felt a tingling sensation in his left arm and leg. Aware that he was having a heart attack or a stroke, he managed to ask a passerby to call UNIMED Hospital. Then he collapsed onto the sidewalk, no longer able to speak or move his arms and legs.

Of the ride in the ambulance that had been summoned by someone in the small crowd gathering around him, Eliel remembers very little. But he does remember arriving at the hospital where his co-workers were waiting outside the emergency entrance with a stretcher. And he remembers the doctor tapping his chest and saying, "I'll take care of you."



UNIMED São Carlos is a diamond hospital – **a** three-times winner of the top-tier WSO Angels Award.



What Eliel loves about nursing is "seeing someone with health problems enter the hospital and then seeing them leave well and recovered". In the course of his career he has seen many stroke patients arrive at the hospital, and he has cared for stroke survivors at home.





A keen runner and soccer player in his spare time, he never expected to be that patient. But now, with the clock ticking away, Eliel was wheeled directly to radiology where a CT scan confirmed he had had a stroke. A therapeutic decision was swiftly reached. Treatment with thrombolysis commenced at CT and continued in the emergency room. From there he would be transferred to the ICU where he would spend the next three days.

The shift in perspective from being the carer to being cared for, brought home a number of truths. The first of these was the importance of prenotification to shorten the treatment path.

Because the mobile emergency care service (SAMU) had alerted the hospital that a suspected stroke patient was on his way, UNIMED Hospital's stroke team was ready to receive their colleague and expedite his pathway. The second was the significance of strict adherence to protocol. UNIMED São Carlos is a diamond hospital – a three-times winner of the top-tier WSO Angels Award. Their compliance with evidence-based guidelines means patients like Eliel receive the highest standard of care in the shortest possible time

The third observation was how postacute care supports recovery. Eliel says, "All the care from the entire multidisciplinary team was wonderful. The physiotherapy team helped me walk every day. The first few days I couldn't walk, but then I was gradually able to walk again." When Eliel went home eight days after his stroke, his movements were still tentative, and his mouth still drooped to one side. Ten months later, however, he is almost ready to return to work.

"I feel very good," he says. "There are a couple of fingers that from time to time still don't hear the voice of the brain, but I am very well, thank God."

#### Raquel's Story

Cudam is a small hospital in Montevideo, Uruguay, and the clinical home of distinguished neurologist Dr Claudia Camejo who along with Dr Ignacio Amorin was given the task of developing a national stroke protocol by the Uruguay Ministry of Public Health. But this is the story of Raquel Gonzalez, a nurse at CUDAM for 31 years, who on 11 June 2022 was wheeled through the doors of the emergency room where she had been working for 25 years.

It was a Saturday and Raquel had just come on duty when she popped out to get something from a nearby store. As she crossed the street she felt a tingling sensation in her right leg, and when she reached the sidewalk she struggled to raise her foot onto the kerb. After walking a few more steps, she felt dizzy and steadied herself against a tree.

Moments later, at around 7.05 pm, a taxi pulled up beside her and a nurse from a nearby hospital got out to ask Raquel if she was okay. As she clearly wasn't, the taxi driver offered to take her to a hospital in the neighbourhood. But by now aware that she might be having a stroke, Raquel asked to be taken to CUDAM instead. They had a stroke protocol, she managed to explain.

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I thought, it can't be happening again!

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When Raquel arrived at the hospital just eight minutes had elapsed since she first became aware of her symptoms, and she was no longer able to speak. When her colleague, Dr Erik Cristaldo, performed an NIHSS evaluation, Raquel responded to his questions by gesturing with her left hand. Struggling for composure she

continued to try and communicate with her colleagues until her daughter arrived and upon seeing her mom's distress began to cry. Then Raquel's own tears began to flow. She says, "I went into the CT scanner crying and surrendered to God, I was in his hands."

In the preceding months, Angels consultant Florentina Racchi had been helping CUDAM optimise their stroke pathway. Now, after imaging confirmed Raquel was having an ischaemic stroke, all the pieces fell into place. Treatment with thrombolysis commenced at 8.20 pm. The onset-to-treatment time had been one hour and 15 minutes.

When Raquel was discharged five days later, she was walking and talking almost normally. The stroke had nevertheless taken a toll. She says, "It had all happened so fast that I couldn't process everything emotionally. When I got home, I felt overwhelmed by the noise and social communication. I could only tolerate the company of at most two or three people at one time." She went through all the stages a stroke patient does, Raquel says. "I'd go from being in a good mood one moment and in the next moment I'd feel like crying. And I felt scared. One day while walking along 18 de Julio Avenue I lost my balance and thought, 'It can't be happening to me again!' But it was just the heel of my boot that had come off."

Raquel is now back at work where she focuses on a health programme for gender-based violence and attends to patients two days a week. Since her stroke, she has dedicated herself to supporting stroke prevention activities and collaborating in the CUDAM stroke programme that saved her life.

"Having the hospital close by was key," she says. "Dr Claudia Camejo is a magnificent human being apart from being an excellent professional. Everything was optimal, the commitment to applying the protocol was fundamental, we had the medication . . . It was all very successful."

As a stroke survior, sharing her experience with other patients and professionals is high on her list of priorities. She says, "I highlight sensitivity and empathy especially in cases where patients cannot respond. Even if you cannot speak, you are aware, you are perceiving everything, a thousand things go through your head, and it is very important to be told, at every step, what is going to happen to calm the anxiety."



# The Right Stuff

Nurses at this Pretoria hospital would stop at nothing to transform stroke care at their facility. All they needed was a neurologist who understood their goal and shared their passion.

ANGELIQUE BURGER was 16 years old and visiting her grandmother when a catastrophic event occurred that would influence the course of her life.

The first sign that something was terribly wrong was that her grandmother seemed disorientated and there was something odd about her speech. "What's wrong with granny?" Angelique remembers asking her parents.

I didn't know what to do That was when I made the decision to go into nursing

- because of the care she got or rather didn't get.

"I felt so out of control," she says. "I didn't know what to do. That was when I made the decision to go into nursing - because of the care she got or rather didn't get. Because of the difference the right people could have made for her."

Her grandmother's stroke made her realise the importance of having

access to "the right person" during such a life-altering event, so Angelique made the decision to be the right person.

As care co-ordinator at Life Eugene Marais Hospital in Pretoria, Angelique administers the patient pathway, getting all the moving parts working and ensuring nothing is overlooked. She is also in charge of data capturing and entering stroke patient data in the stroke care improvement registry RES-Q. And she is part of a nurseled drive to improve stroke care at their hospital that in Q3 of 2023 was rewarded with their first gold award.

#### **Troubleshooting** and goalsetting

On 1 February 2024, trauma unit manager Sr Helet Viljoen marked 33 years of being the right person. The stroke pathway at Life Eugene Marais Hospital where she has worked since 1991, quite literally starts with her. Any time of the day or night, it is she who receives prenotification alerts from the ambulance service on her cellphone, passes the word to reception, arranges for a file to be opened and ensures the stroke patient has priority access to the CT scanner.



of doing anything else.

The road to improved stroke care at Life Eugene Marais Hospital began in late 2018 when the hospital formed a partnership with the Angels Initiative. The first multi-disciplinary meeting took place in March 2019, and Sr Janneke Verster became coordinator of the newly created stroke pathway, overseeing a programme of training, simulations, weekly meetings, and community outreach. Although the hospital had no neurologist, a dedicated team introduced measures to shorten the time to treatment, and dysphagia screening became an integral part of care.

In 2020 the Covid pandemic disrupted stroke care worldwide and after Sr. Verster left the hospital in October of that year, the stroke care improvement programme lost momentum. But in 2022 the spark was relit by general nursing manager Sr Amelia Marais who poured heart and soul into the mission to provide better care to stroke patients, and infected her colleagues with her passion. It was she who reinstituted the multi-disciplinary meetings that Angels consultant Carla Scholtz believes was the keystone of their success, and with clinical training specialist Sr Marina Tsiane and Angels support mobilised the training of nurses throughout the hospital.

After the hospital enrolled with RES-Q in January 2023, the meetings became a monthly forum for troubleshooting and goalsetting, their progress towards a gold award measured by Angelique's presentations of their stroke treatment data.

"The answers are in the RES-Q results," Carla reminded them whenever they fell short of the target, sending them back to their dashboard to identify quality gaps and fix them. But there was one gap for which they had no action plan – there was no neurologist to lead the team.

#### **Starting over**

Dr Maropene Maloma became the right person midway through 2023 when she joined Life Eugene Marais Hospital and found a stroke system already in place. At her previous hospital – a crowded state facility with very limited resources – the stroke programme faced overwhelming challenges. She'd made the move from a desire to grow, discover her abilities, make decisions and put her knowledge to work.

For the nurse-led stroke team, she was just what the doctor had ordered. Dr Maloma understood the goal and shared the passion, and by August 2023, Carla says, "the award was so close we could feel it". Angeliques's data report showed just a single metric where they fell short of gold and they had an action plan to fix it. As Q3 of 2023 drew to a close, she was putting in long hours to capture all the patient data in time for the awards deadline.

Dr Maloma's interest in neurology and stroke was triggered while working as a physiotherapist. The work brought her into contact with stroke survivors and she became intrigued by the science and mystery of the human

"Even during my training I was fascinated by how they knew where

the lesion was, and why the weakness was on one side when the lesion was on the opposite side of the brain."

Her work in rehabilitation was helping survivors manage the deficits caused by stroke, but she wanted to know more



Ambulances that used to bypass them en route to hospitals further away, are now more frequently bringing stroke patients directly to their hospital.

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"So I started again," she says. "After two years as a physiotherapist I went back to school and right from the start I knew I wasn't going to become a generalist. I would have to specialise and neurology was on my mind.

However circuitous the route that lead to her current role, her background in rehabilitation enriches her work as she has seen first-hand the difference the right person or their absence can make.

#### Love's labour

October 2023 is a month she will never forget, Carla says. "I spent a lot of time at Life Eugene Marais Hospital during stroke week and there was joy everywhere." The Q3 results were about to be released and, like every year in the build-up to World Stroke Day on 29 October, there were stroke awareness activities such as prizes for the best

stroke awareness poster and a cake decoration competition, both of which Carla had been invited to judge.

Prizes were handed out at the end of the week, but the biggest one was saved for last – the announcement by the hospital manager that Life Eugene Marais Hospital had finally won a WSO Angels gold award.

It was the fruit of a little more than nine months of hard work and determination and upon hearing the news, Sr Marais exclaimed: "I have finally given birth to my baby!" Although Sr Marais has since left, there is a team carrying on her legacy to ensure the baby isn't destined to be an only child, and a circle completed with Sr Verster returning as Sr Marais's successor to continue the work of delivering the best possible outcomes for stroke patients and their families. Meanwhile Carla and Angelique are both keeping a close eve on the hospital dashboard in RES-Q as the action plan to become a platinumwinning hospital unfolds.

As word of the award got out, Sr Viljoen reports that ambulances that used to bypass them en route to hospitals further away, are now more frequently bringing stroke patients directly to their hospital. The gold award tells them what they need to know – that stroke patients will find the right people there.







Heartache & steel

Grandma Paquita's story

As an experienced Angels consultant, Alicia Arjona understood how fragile the lives of stroke patients were. But when the patient was her beloved grandma, and care failed, she went from feeling sad and mad to steely determination.



**WHEN** Grandma Paquita went home after 12 days in hospital, the scale of the tragedy was captured in a single note on the discharge report: "If her condition worsens, do not bring her back."

Twelve days earlier, 89-year-old Paquita had been full of life and love, of which there was plenty. Her six children had blessed her with 11 grandchildren and five great-grandchildren. They, and everyone in her village in Málaga province in the south of Spain, knew her kind heart and that there wasn't a malicious bone in her body.

To Alicia Arjona, the Angels consultant for Andalusia, Grandma Paquita was her very own angel.



"She is the best person I know," Alicia says, "and to me, she is my second mom. It was always my mom, my grandma and me – ever since childhood. We were super close, just the three of us."

Just a few weeks earlier the extended family had celebrated her 89th birthday with a joyous feast that Paquita had helped prepare. Besides being a reason to celebrate, 89 was just a number, and one which Paquita defied through her independence, energy and a youthful spirit.

But after a cerebellar stroke interrupted blood supply to a small but vital part of her brain, the number 89 became a stumbling block, a data point that informed a critical decision, after which everything became steadily worse.

#### A nightmare unfolds

Although it was a Saturday, Alicia was at work when her mom Josefa called to say Grandma Paquita had had a stroke. "My world started crashing down," she recalls. To make matters worse, the hospital where Paquita was admitted, though nominally strokeready, was one that had declined to work with Angels to improve their

stroke care. The stroke coordinator had repeatedly rebuffed Alicia's offers to help them optimise their hyperacute pathway; the nurses displayed no interest in raising the standard of postacute care.

For several days Alicia would obsessively examine their decision not to treat her grandmother with thrombolysis on the grounds that she had been taking anticoagulents for which there was no antidote. She says, "I was consumed by the possibility that they hadn't treated her because of her age."

Meanwhile, a post-acute nightmare was unfolding for Grandma Paquita's family.

Because Paquita had not been expected to survive her stroke, she'd been transferred to the internal medicine department where she could be surrounded by her family. It would be a matter of hours, doctors had said.

When Paquita stubbornly clung to life, Alicia expected her to be relocated to a unit where specialist nursing care could mitigate the impact of the stroke and prevent complications. But stroke unit beds were reserved for younger patients and those who had undergone recanalisation, and Grandma Paquita was 89.

#### Doing whatever it takes

In the internal medicine department where Paquita now lay, there was no FeSS protocol to monitor fever, sugar and swallowing, no neurological evaluation, no attention to the angle of the bed, no anti-platelets to prevent a second stroke, no vigilance concerning the patient's blood pressure. Unable to persuade the staff to depart from business as usual, an increasingly frantic Alicia put into action the first rule of Angels: she did whatever it took to give her grandmother's life a chance



Over the course of the next 10 days, Alicia and Cristina, a young cousin who had recently become a nurse, created a virtual stroke unit around their grandmother's bed. Alicia displayed the correct procedures and checklists against the wall and on the overbed table. She fetched a glucometer she used for simulation training and instructed Cristina to monitor Paquita's blood glucose every four hours. She furiously interrupted a nurse who was spooning commercial jelly into her grandmother's mouth and ran to the pharmacy to buy thickener for a dysphagia test. After a member of the Anadalusian Nursing Steering Committee helped them conduct a teledysphagia screening, Alicia explained Paquita's feed delivery needs to the rest of the family.

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I now have another example of how fragile the lives of stroke patients are, and how important our work is for helping them.

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#### Mad and sad

If the nurses on the ward were less than welcoming of Alicia's interventions, she simply didn't care. When they insisted they'd never had a case of aspiration penumonia as the result of dysphagia, she declared that her grandmother would not be the first. When a doctor suggested it might be best to let go, she resolved that it would not be as the result of being given water she couldn't swallow.

"My grandma was suffering," she says.
"I wasn't going to allow them to do something just to avoid a fight."

It made her both mad and sad that her grandmother might've been treated differently if it wasn't for her age. "They just saw another old body," Alicia says. "That was the most painful thing."

But more pain was to come.

On 12 June, two days after she was admitted to hospital, Paquita displayed the same symptoms as when she had had her stroke. However, no neurological assessment was done, and no CT scan ordered. Instead, she was given drugs to relieve nausea. Five days later the same symptoms recurred. It was a Saturday, and this time the doctor didn't answer their calls.

On discharge day on 22 June, a CT scan confirmed a heamorrhagic transformation and a secondary stroke in another part of the brain, the almost inevitable result of the failure to monitor blood coagulation or administer anticoagulants. The damage was immense.

Then a note was added to the discharge form: "If her condition worsens, do not bring her back."

#### Silver lining

Josefa and Alicia still visit Paquita's home, but she hardly knows where she is or who they are. Although she survives for now, Josefa has already lost her mother, and Alicia has lost her angel. She says, "She's not my grandma anymore."

Determined to find a silver lining, Alicia mentions her gratitude to the Angels community in Spain who held her in their hearts and hands throughout the ordeal. And she has never been more convinced of the necessity of Angels: "I now have another example of how fragile the lives of stroke patients are, and how important our work is for helping them."

The doctors and nurses at the hospital have not seen the last of Paquita's granddaughter. She says, "I want this hospital to be trained so no-one suffers the same way. They will have to join the telestroke network and the steering committee, and they will have to agree to work with Angels on their protocol and pathway."

She hopes she can leverage their empathy by encouraging them to imagine themselves in the role of a stroke patient's family. She hopes to convince them that she's their ally, and that her intention is to help them become better at what they do. What she doesn't intend to do is give them a choice.



