

The Best Stroke Treatment in Southeast Asia

Stroke is a common occurrence everywhere and is among the most frequent causes of death and disability worldwide. Yet, in many parts of the world advanced treatment is hard or even impossible to come by. An expert from Stroke International Services (SIS) hospital in Vietnam's Mekong Delta is developing ways to optimize clinical operations and expand expertise.

Text: Justus Krueger

Cuong Tran Chi, MD, works in Can Tho City, situated in the Mekong Delta on the very southern tip of Vietnam. He was instrumental in establishing Stroke International Services (SIS) General Hospital, dedicated to providing stroke patients with the best treatment currently available. Another focus is on training doctors who can then replicate the success of SIS throughout Southeast Asia and beyond.

The Mekong is a vast river, and the Delta region in Vietnam's south is home to more than 15 million people. "Before we established SIS, the closest place that could provide good treatment for stroke patients was one hospital in Ho Chi Minh City," also known as Saigon, says Cuong, who was previously employed there. Often the result was that it took too long for stroke victims to reach the hospital.

A similar situation prevails in other parts of the country: Vietnam is an emerging economy, and although it is a very successful one, it is still in



The Mekong Delta region in southern Vietnam is home to more than 20 million people – and medical treatment might be miles away.



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Cuong Tran Chi, MD, Stroke International Services (SIS) General Hospital, Can Tho City, Vietnam

the process of optimizing its infrastructure, including its medical infrastructure. Vietnam is similar to Germany in size, but is more densely populated. The country has 95 million inhabitants, about 15 percent more than Germany and about a third more than the United Kingdom or France. There are around 200,000 stroke cases per year in Vietnam, and most of them do not occur within easy reach of the next hospital or advanced stroke center. As a result, over 90 percent of patients reach the hospital six hours or more after the stroke occurs.

With strokes, however, more so than with most other conditions, rapid diagnosis and timely care are absolutely critical for the success of the treatment. The narrow timeframe within which optimal treatment is possible is known as "the golden hour". It helps to explain why establishing a center like SIS in the Mekong Delta was so important.

Matching European and U.S. standards

In 2019, there were around 10,000 stroke patients in the Mekong Delta region. In the same year, SIS alone treated approximately 4,000 emergency stroke patients, and its doctors performed more than 700 neuroendovascular interventions.

"This is an incredible number," says Cuong. "The average in the hospital in Ho Chi Minh City" – the only stroke center for the region before SIS opened – "was 30 such interventions per month, maximum. Now, at SIS, we do a minimum of 60 interventions per month. Every day, we have at least 10 emergency stroke cases. Yesterday, we saw 16 patients. Today, as of now, we have had 12 admissions," says the doctor.

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This, says Cuong, would not have been possible without good partners. "To operate our stroke center requires substantial investment. Siemens gave us very strong support."

A training center for the whole region

From the start, Cuong, his co-workers, and partners intended to leverage these capabilities to the maximum extent. "Naturally, SIS is there to meet patients' needs. But we also planned from the start that it would operate as a training center for all of Vietnam and Southeast Asia," says the physician.

There are three main requirements in developing a good training center, he says: The first is people with experience and expertise. "We assembled a very good team, both from Ho Chi Minh City and from overseas," he says. The second requirement is very good equipment, and at SIS we have that. Finally, it is necessary for a good training center to have many patients. "We have it all," says Cuong.

For Vietnam, SIS expects to train at least one or two doctors in the next five years capable of carrying out neurological interventions in each of Vietnam's 63 provinces.

To further enhance the role of SIS as an international training center beyond Vietnam, the hospital hosted the first Asian Stroke Summer School in 2019, with the participation of more than 100 neuroradiologists and stroke physicians from Vietnam, Laos, Cambodia, and Indonesia, and as far afield as Pakistan and South Africa.

The Summer School took a unique format, combining plenary sessions and discussions with practical training. This comprised a series of teaching sessions, courses on acute stroke management, as well as hands-on training for interventional neuroradiologists. Cuong and his co-workers modelled the Summer School on the equally effective European Stroke Winter School, which is held each year in Bern, Switzerland.

Creating a stroke network

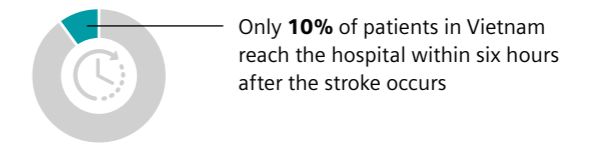
"The fact is that there is a very high demand in our region for stroke treatment, but a low supply of expertise. In other words, there aren't enough doctors," says Cuong, and this is what SIS and the Summer School intend to change.

While Vietnam has gone through several decades of economic growth and is a leading country in Southeast Asia in every respect, the situation with regards to stroke treatment in some parts of the country is dire.

"In Laos and Cambodia, there is at present nobody who can perform endovascular treatment," says Cuong. "This is why we are working on

Facts and Figures

200,000 stroke cases per year in Vietnam



10,000 stroke patients in the Mekong Delta region in 2019



SIS treated approximately **4,000** emergency stroke patients in 2019



The SIS handles ...



... a minimum of **60** interventions per month
... at least **10** emergency stroke patients every day

creating a stroke network in these two countries and extending our training opportunities to colleagues from poor countries."

The need for good treatment is there, all over Southeast Asia. Cuong, SIS, and their partners are working to find ways to meet it. ●

Based in Hong Kong for many years and familiar with South East Asia, journalist **Justus Krueger** is a frequent contributor to South China Morning Post, Stern, Berliner Zeitung, Spiegel, NZZ, and many other publications. He is specialized in business and science topics as well as current affairs.

The statements by Siemens Healthineers customers described herein are based on results that were achieved in the customer's unique setting. Since there is no 'typical' hospital and many variables exist (e.g., hospital size, case mix, level of IT adoption) there can be no guarantee that other customers will achieve the same results.