

## **European Stroke Organisation (ESO) Department to Department Program 2022**

Report by Annemijn M. Algra, Neurologist in training at the University Medical Center Utrecht, the Netherlands, visiting the Oslo University Hospital in Norway, under the supervision of Stroke Neurologist Dr Else Charlotte Sandset.

*Period of visit: May 30<sup>th</sup> to June 3<sup>rd</sup>, 2022*

How is stroke care organized in another European country? What can I learn from another hospital, stroke unit, emergency room? How is the infrastructure, chain of stroke care? What are Oslo's best practices and what can I bring home to Utrecht?

### **Universal stroke language**

After my ESO Department to Department visit, I can confirm that Oslo and Utrecht are in fact very much alike in terms of stroke care. Of course, our North-European countries have some differences (Netherlands: 17.6 million people, 41.543 km<sup>2</sup> and Norway: 5.4 million people, 323.787 km<sup>2</sup>), but in many ways they are very similar. From morning reports and rounds to emergency routines: after a week with the Oslo Stroke team, I understood the Norwegian stroke language. Or at least, most of it.

### **Norwegian working hours**

On my first day, Dr Sandset picked me up at the Oslo University Hospital Ullevål (OUH-U), took me to the morning report (start: 08:00h) and introduced me to the team. I joined the residents and consultants to the radiology report, on their rounds and to all their meetings. Some of the residents were neurologists in training, others were geriatricians. Most of them stayed for six months at the stroke unit. In three teams they covered the stroke unit: one team for the high dependency unit, two other teams for all other beds. After the rounds and meetings residents worked on their administration and at 15:00h the on-call resident arrived. If the work for the day is finished, you leave the hospital around 16:00h. In Utrecht, our on-call starts at 16:30h and we leave the hospital on average at 18:00h (often later). Perhaps the Norwegian working hours are a first 'best practice' to take home with me?

### **Acute stroke treatment in Oslo**

On my second day, I joined Dr Lund, one of Dr. Sandset's colleagues, at The OUH - Rikshospitalet (National Hospital). The morning round started with an interesting case: a patient with an artery of Percheron stroke. For this patient, an MRI-scan had been ordered to visualize the extent of the stroke. It showed bilateral damage to the thalamus and mesencephalon. The Rikshospitalet is a tertiary referral centre for stroke care, with a longstanding thrombectomy service. Some of the more complex stroke cases are referred to this hospital. However, the infrastructure of acute stroke treatment has changed over the last few years and the Rikshospitalet is no longer the only hospital in the South-Eastern part of Norway with a thrombectomy service. Currently, four hospitals have this new service. With the new stroke unit in place at the OUH-U, most ambulances and helicopters (you need them in Norway) directly go to the OUH-U in case of a stroke call. In contrast to the 'ship-and-drip' approach we have in Utrecht, the interventionalists themselves now 'transfer-and-treat' between the thrombectomy services.

### **Presenting my research**

On Wednesday Dr Sandset had arranged for me to present the results of my thesis on unruptured intracranial aneurysms to her stroke team in the morning, and to the neurosurgeons at the Rikshospitalet in the afternoon. For me, this was an excellent try-out, as I will defend my thesis in October 2022. During my PhD, I have developed two risk scores to predict complications of preventive endovascular and neurosurgical aneurysm treatment. Working with a large international group of aneurysm experts has taught me that if we want to [learn from complication meetings](#), it is important to understand each other's worlds and to discuss not only complications, but also the things that 'usually go right'. And of course, we should always introduce some fun. One of the 'best practices' I presented was the 'pizza-intervention'. But apparently that was not something new for the neurosurgeons at the Rikshospitalet: by the time I arrived there to give my talk, they had already ordered pizza.

### **Stroke simulation training**

Of course, the Department-to-Department visit would not have been complete without a day at the emergency room (ER). I was impressed by the large, well-organized structure of the new ER at the Oslo University Hospital and how quickly and systematically the stroke codes are assessed. Dr Advani, one of the stroke consultants, had already explained to me why he thinks it is so important to practice the stroke calls with the (new) residents. Not only because 'time is brain', but also to train the decision-making process and to make decisions together. It was great to see him at work in the ER, giving the residents direct and constructive feedback, while checking with me if I could still follow all the Norwegian. The team's work on [stroke simulation training](#) and the enthusiastic way he brought this into practice is definitely something I am bringing home with me to Utrecht.

### **Post-pandemic socializing**

The week ended with 'International Friday': a new online tradition set up by Dr Sandset to invite keynote speakers from all over the world to give Zoom lectures on various stroke topics. The pandemic has made us very flexible, hybrid and creative, but I cannot deny that I was happy to visit the Oslo Stroke team 'in real life'. Apart from being exposed to stroke care in Norway, it was a lot of fun to join the team in their daily routines and social events. Dr Advani's daily lunch tradition to do the newspaper quiz (which was seriously competitive), the long and inspirational walk I went on with Dr Sandset and the lovely dinners I was invited to: it made the visit one to never forget. I already look forward to meeting my new Norwegian stroke colleagues again at the ESOC in Munich in 2023. Or when I come back to Oslo, in the near future.

"Tusen tak" to the Oslo Stroke team and the European Stroke Organisation for the Department-to-Department Visit Program Grant.

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Dr Sandset showing me the stroke unit



My presentation for the Oslo Stroke team



Oslo: nature just around the corner. Great for a long walk with some fantastic views

