

European Stroke Organisation Department to Department Program 2019

Report by F.H.B.M. Schreuder, Radboudumc Nijmegen, the Netherlands, visiting the Salford Royal NHS Foundation Trust, Manchester, UK under the supervision of prof. A. King and dr. A. Parry-Jones.

Period of visit: 5 to 12 September 2019

Thanks to the support of the European Stroke Organisation I was able to visit the Department of Neurology at the Salford Royal NHS hospital and the Stroke Research Group at the University of Manchester.

Stroke care in the Greater Manchester area (population 2.7 million) is highly centralized. Since 2015, patients who are suspected of having a recent stroke are transferred to one of three Hyper Acute Stroke Units (HASU). Here, patients are treated by a specialist stroke team up to 72 hours after stroke onset, after which patients are transferred to District Stroke Centers at the local hospitals to rehabilitate. Salford Royal Hospital currently treats about 2,000-2,500 patients with stroke per year, amongst which are approximately 250-300 cases with intracerebral hemorrhage (ICH). For patients with ICH, a dedicated stroke care pathway called the ABC bundle has been designed. The bundle of care includes three interventions, i.e. fast reversal of anticoagulation, intensive blood pressure lowering and a dedicated care pathway. The implementation of this care bundle has resulted in 10 percentage point reduction in 30-day case fatality, which has been recently published in the [Annals of Neurology](#).

During my stay I was able to visit the HASU at Salford Royal Hospital, which is the largest HASU and the only with neurosurgical facilities in the Manchester area. I was able to gain insight in how treatment of stroke in a large comprehensive stroke center is organized and how regional stroke care can be delivered. I have met with the Neurological and Neurosurgical teams and gave presentations on the ongoing research projects at our department. Also, on Thursday 5th of September I attended the NHS Health and Care Innovation Expo, where a discussion on how to improve stroke care within the UK was discussed as part of the NHS Long Term Plan.

One of our mutual interests is the inflammatory process after ICH, which results in secondary brain injury. The Stroke Research Group at the Manchester University has a longstanding history of research on the inflammatory responses after both ischemic and hemorrhagic stroke. Recently, a zebrafish model has been developed to study the pathological processes after ICH. I had the opportunity to meet the preclinical Stroke Research Group at the Manchester University and visit the zebrafish facilities. Dr. Parry-Jones has recently started a phase-II trial to investigate the therapeutic potential of modulating the inflammatory response after ICH. We had ample time to discuss how future collaborations can accelerate the translation of this work to clinical benefit. Lastly, I was invited to give an overview lecture on recent developments on ICH treatments at the annual NIHR Stroke Research Workshop on Wednesday 11th of September.

I would like to thank dr. Adrian Parry-Jones, dr. Hiren Patel, dr. Paul Kasher, professor Stuart Allan, professor Craig Smith and professor Andrew King for their warm welcome at their hospital and for showing me around in Manchester. I am grateful for the support of the ESO which gave me this wonderful opportunity.

