

Report on Department to Department Visit at Charité Universitätsmedizin Berlin

Ana Barragan Prieto, Neurology Department, Hospital Universitario Virgen Macarena, Seville, Spain, visiting Department of Neurology at the Charité Universitätsmedizin Berlin and the Center of Stroke Research Berlin, Germany

As part of the European Stroke Organisation's (ESO) Department to Department (D2D) Visit Programme, I had the privilege of spending a short visit at Charité Universitätsmedizin Berlin. My primary aim was to observe their advanced systems for stroke care, including the operation of the mobile stroke unit (STEMO) and their telemedical network ANNOTeM.

I began my visit with four days of immersion in the STEMO unit. STEMO is a specialized mobile stroke unit designed to rapidly deliver acute stroke care in the pre-hospital setting. This experience provided invaluable insights into the protocols and workflows of the STEMO team, including real-time decision-making, coordination between paramedics and neurologists, and the use of mobile imaging.

I had the opportunity to observe complete stroke code management, from diagnosis to treatment in the ambulance. I witnessed the administration of fibrinolysis and the swift transfer for thrombectomy. The combination of telemedicine and on-board imaging allows neurologists to work effectively in the ambulance, optimizing patient outcomes. This highly integrated system serves as a model for possible pre-hospital stroke care implementations in Andalusia.





On Monday, I observed observe the Stroke MRI. The integration of an MRI suite within the stroke unit was impressive, facilitating quick and accurate imaging in the acute stroke phase. This resource provides both clinical and research advantages, allowing for tailored treatment protocols based on precise imaging data. The proximity of the MRI to the stroke unit reduces delays and increases diagnostic confidence in acute stroke cases. Additionally, the research opportunities provided by the MRI's availability underscore its importance in advancing stroke treatment protocols.

For the next two days, I observed the operations of the Stroke Unit. The unit's multidisciplinary approach—where neurologists, radiologists, nurses, and therapists work in close coordination—offers a streamlined pathway for patient care that maximizes efficiency and outcomes. Furthermore, I noted differences in stroke epidemiology between Berlin and Andalusia, including the prevalence of certain risk factors and patient demographics. These observations will be crucial when assessing how to adapt certain aspects of stroke care to our local population in Seville.

The last days were dedicated to learning about the telemedical network ANNOTeM. This well-established network offers a robust telemedicine infrastructure for stroke care, extending support to remote and rural areas. I was particularly impressed by their integration of neurological video consultations, where software allows for remote control of cameras to conduct detailed neurological examinations. ANNOTeM's telemedicine system has expanded beyond stroke to encompass other neurological emergencies, making it a versatile tool for emergency neurology care. This comprehensive telemedicine approach could serve as an example for the utility of telehealth systems, potentially offering increased accessibility and quality of care for patients in underserved areas.

Conclusions_

My D2D visit to Charité Berlin has allowed me to identify key differences between the stroke patient populations in Berlin and Andalusia, which will be crucial for designing tailored studies that can generate objective and meaningful conclusions. This understanding will enable us to refine our research methodology and adapt interventions more precisely.

Additionally, I was able to detect potential improvements for our own telemedicine stroke network in Andalusia, particularly in observed the utility of more sophisticated remote diagnostic tool and trying to implement these tools in our network,

I am deeply grateful to Dr. Joachim Weber, Prof. Heinrich Audebert, Dr Kaffes and all the Charité team for their hospitality and organization of this visit. My appreciation also extends to the ESO for granting me the opportunity to participate in this invaluable program. I am confident that this experience will foster continued collaboration between our institutions and help advance stroke care both regionally and internationally.