

Yvo Roos is Professor of Acute Neurology and head of department in the Amsterdam UMC, location AMC, Amsterdam, The Netherlands. As a AMC principle investigator (PI) he has been focusing his research on the acute treatment of stroke patients. As such, he has set-up and published over the years several large clinical trials on patients with Aneurysmal Subarachnoid Hemorrhage and Intracerebral hemorrhages (Lancet). The last decade his main focus, however, was on the acute treatment of patients with an ischemic stroke. He initiated a dedicated Acute Brain Care Unit at the emergency department to improve so called door-to-needle times of patients treated with intravenous thrombolysis (Time is Brain principle). This ultra-early treatment system formed the basis for the endovascular treatment setup in the Academic Medical Center Amsterdam. This treatment protocol also served as the blueprint for the treatment arm of MRCLEAN trial. This trial, published in the NEJM, showed for the first time that outcome of patients with severe ischemic stroke could be improved significantly when the clot is removed directly from the occluded artery through a catheter.

The trial was awarded with several prizes including the 2017 Science and Innovation Award of the Dutch Federation of Medical Specialists. The MRCLEAN trial results are internationally shared within pooled analyses in two projects – as such Yvo is member of the HERMES and the VISTA projects. He is currently one of the executive members of the MRCLEAN Registry study, a population-level real world experience and exemplary for medical registries globally. All patients with acute ischemic stroke who undergo treatment with the catheter in the Netherlands are registered, currently over 4500 patients. Results of the Registry are published and show that endovascular treatment of acute ischemic stroke is at least as effective as shown in the clinical trial.

After the MRCLEAN trial Yvo initiated and was PI of the CLOT-MRCLEAN study, also published in the NEJM. This study showed that the effects of treatment are sustainable over time. It also shows that this treatment is highly cost-effective (not yet published results), which is very important to facilitate the implementation of this new treatment modality all over the world.

Currently he is co-PI of the new MRCLEAN No-IV trial within the CONTRAST-consortium (www.contrast-consortium.nl). And he is also on the steering committee of the DIRECT-MT trial which is now enrolling patients in 40 hospitals in China, a study similar to the MRCLEAN No-IV.

Yvo has (co)authored more than 200 peer-reviewed manuscript and has a Hirsch index of 42 (Google Scholar).