

Magnetic resonance imaging protocol



REstart or
STop
Antithrombotics
Randomised
Trial

1. Essential requirements

The correct MRI protocol is essential for the success of the trial! There are several essential requirements of brain magnetic resonance imaging (MRI) performed on participants in RESTART:

- Brain MRI must be **performed before randomisation**.
- Brain MRI must cover from the very top of the vertex to the foramen magnum.
- Brain MRI must include an **axial gradient-recalled echo (GRE) T2* sequence**. The table below shows the optimal and accepted limits for key parameters for GRE T2* sequences.

Parameter	Optimal	Accepted limits
Slice thickness (ST)	3mm	3-5 mm
Slice gap (SG)	Ideally no gap	Not more than 1mm
Echo time (TE)	20-30 ms	15-40 ms

- Brain MRI must also include **other essential MRI sequences**. Exact sequence parameters are not specified, nor is the field strength.
- T₁-weighted sequence** (volumetric preferred, but if that is not possible then sagittal)
- Axial T₂-weighted sequence**
- Axial diffusion-weighted imaging (DWI)**
- Axial fluid attenuated inversion recovery (FLAIR)**

2. Optional MRI sequence

- Susceptibility-weighted imaging (SWI) or equivalent such as 3D GRE SWAN.

3. Reimbursement

Investigators will be reimbursed for each brain MRI performed on participants in RESTART **only** if the protocol above is adhered to and each imaging study passes our quality assurance checks.

4. Please contact the most appropriate member of the RESTART team if you have any questions about the MRI protocol:

Imaging manager: Ms Lynn Forrester (Lynn.Forrester@ed.ac.uk)

Chief imaging investigator: Prof Phil White (phil.white@newcastle.ac.uk)

Trial manager: Ms Karen Innes (Karen.Innes@ed.ac.uk)

Chief investigator: Dr Rustam Al-Shahi Salman (Rustam.Al-Shahi@ed.ac.uk)

Address: RESTART, Bramwell Dott Building, Division of Clinical Neurosciences, Western General Hospital, Crewe Road South, Edinburgh. EH4 2XU

Telephone: 0131-242-7994

Fax: 0131-242-7995

Web: www.RESTARTtrial.org