THE MS-SMART TRIAL IN SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS: A MULTI-ARM, MULTI-CENTRE TRIAL OF NEUROPROTECTION

Jeremy Chataway,1 Siddharthan Chandran,2 David Miller,1 Gavin Giovannoni,3 Claudia Wheeler-Kingshott,1 Sue Pavitt,4 Nigel Stallard,5 Clive Hawkins,6 Basil Sharrack,7 for the MS-SMART trialists 1. 1Queen Square Multiple Sclerosis Centre, UCL; 2Anne Rowling Regenerative Neurology Clinic, University of Edinburgh; 3Queen Mary University of London; 4University of Leeds; 5University of Warwick; 6University Hospital of North Staffordshire; 7University of Sheffield

There is currently no treatment for secondary progressive multiple sclerosis (SPMS) which determines the majority of disability in multiple sclerosis. The MS-SMART trial is a multi-arm, multi-centre, phase 2 randomised trial for patients with SPMS. A total of 440 patients with progressing SPMS will be recruited in England and Scotland and randomised to one of 4 blinded arms: amiloride 5mg bd, riluzole 50mg bd, fluoxetine 20mg bd or placebo. These agents have been chosen after an extensive systematic review which has suggested putative neuroprotective properties. Patients will be followed up for 96 weeks with outcome data collected after 0, 24, 48 and 96 weeks. The primary endpoint is MRI atrophy rate. A wide range of relevant secondary and mechanistic exploratory outcomes will be collected including: MR spectroscopy, MTR, grey matter volume, cervical cord atrophy, CSF neurofilament levels and optical coherence tomography. This trial is now open for recruitment in 2015.

This independent research is awarded by the Efficacy and Mechanism Evaluation Programme (EME) and funded by the Medical Research Council (MRC) and the Multiple Sclerosis Society (MS Society) and managed by the National Institute for Health Research (NIHR) on behalf of the MRC-NIHR partnership.