MANAGING THE TRANSITION TO SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS:

A SCOPING REVIEW





libero dalla SM

ManTra is funded by FISM (Grant 2015/R/22)

A. Giordano¹, S. Köpke², P. Confalonieri³, G. De Luca⁴, Erika Pietrolongo⁴, M. Trojano⁵, C. Tortorella⁵, C. Borreani⁶, M. Messmer Uccelli⁷, V. Torri Clerici³, L. Gitto⁸, A.M. Giovannetti^{1,3}, C. Heesen⁹, A. Solari¹, on behalf of the ManTra project *

1. Unit of Neuroepidemiology, Foundation IRCCS Neurological Institute C. Besta, Milan, IT; 2. Institute of Social Medicine and Epidemiology, University of Lübeck, Lübeck, DE; 3. Department of Neuroimmunology and Neuromuscular Diseases, Foundation IRCCS Neurological Institute C. Besta, Milan, IT; 4. Department of Neuroscience, Imaging and Clinical Sciences, G. d'Annunzio University of Chieti-Pescara, Chieti, IT; 5. Departments of Basic Medical Sciences, Neurosciences and Sense Organs, University of Bari, Bari, IT; 6. Unit of Clinical Psychology, Foundation IRCCS Istituto Nazionale per la Cura dei Tumori, Milan, IT; 7. Department of Health Services and Research, Italian Multiple Sclerosis Association (AISM), Genoa, IT; 8. Center of Economics and International Studies (CEIS), Faculty of Economics, Tor Vergata University of Rome, Rome, IT; 9. 9Department of Neurology, University Medical Center Hamburg-Eppendorf, Hamburg, Germany, DE

BACKGROUND

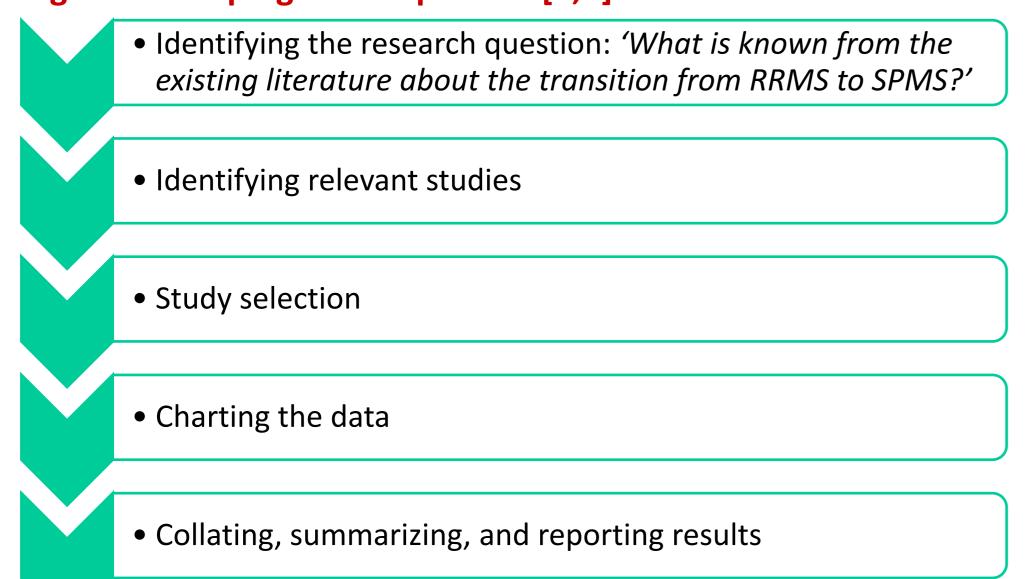
Approximately 50% of patients with relapsing remitting multiple sclerosis (RRMS) will develop secondary progressive MS (SPMS) within 15 years of disease onset[1]. The transition phase is characterized by a period of diagnostic uncertainty that may last several years. Evidence about transition to SPMS is scarce.

The "Managing the Transition (ManTra)" seeks to develop and test a userled resource for newly diagnosed SPMS patients, using mixed methodology [2]. As a preparatory step, we aimed to perform a literature review.

METHODS

A scoping review was performed to map the existing literature, using the Arksey & O'Malley framework (Figure 1) [3,4]. We searched MEDLINE, EMBASE, PsycINFO, CINAHL, Google scholar (selective search) from inception to 2017. Trial and dissertation registers were also searched for published and unpublished studies. We included primary research focused on the process of transition from RRMS to SPMS related to patients, carers or health professionals.

Figure 1. Scoping review process [3,4]



RESULTS (I)

A total of 1874 references from MEDLINE, Embase, CINAHL, PsycINFO, were identified in our screening. Among these, 37 duplicates were excluded, and 1469 citations were excluded after initial screening. Sixtysix full-text articles were retained for further screening. Of these, 61 were excluded because they were studies addressing laboratory or MRI predictor of conversion, natural history studies, therapeutic trial/review, descriptive of SPMS (n=5), other predictor (n=11), not specific for SPMS (n=3), duplicates.

*ManTra project investigators

Steering Committee: C Borreani, P Confalonieri, G De Luca, A Giordano, AM Giovannetti (study Co-PI), L Gitto, A Solari (study PI), V

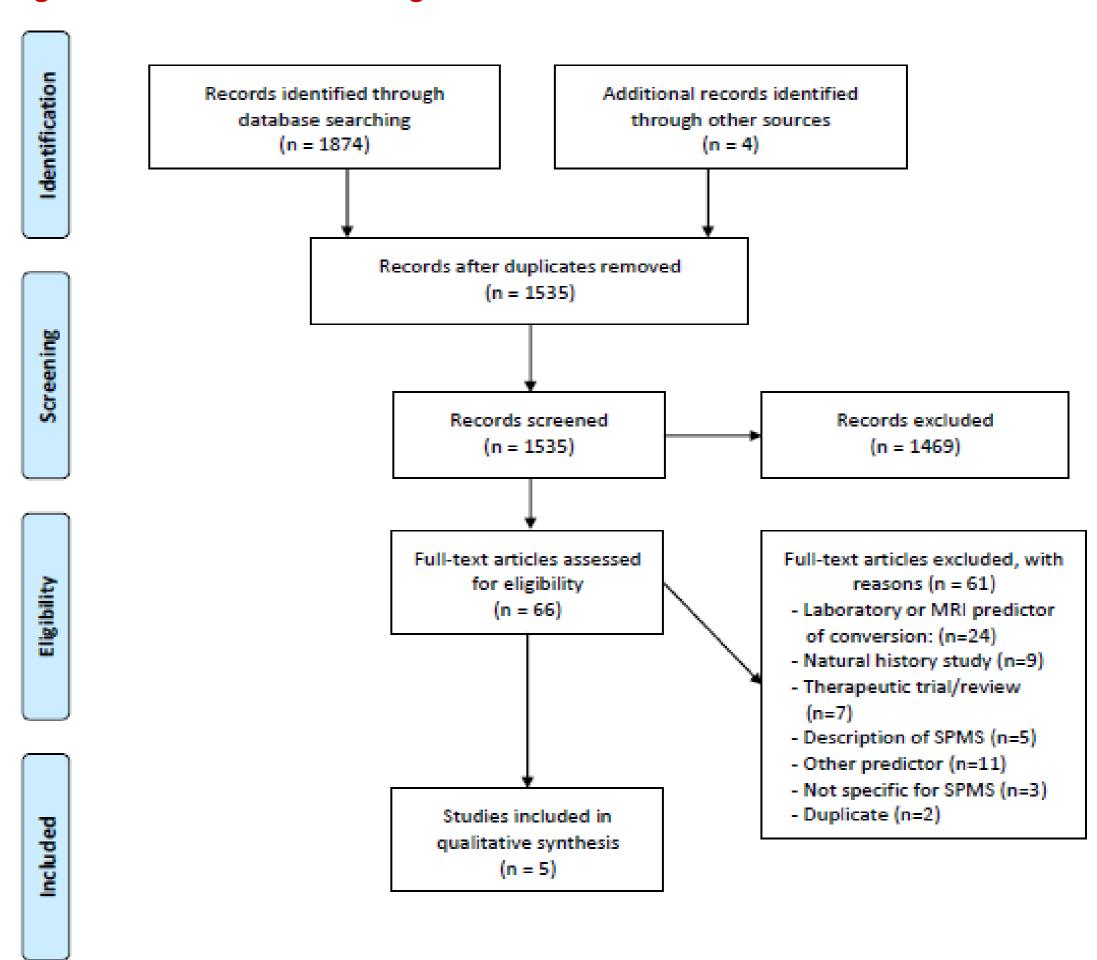
Torri Clerici, M Trojano, M Messmer Uccelli. **Literature Review Panel:** A Fittipaldo, S Köpke, AM Giovannetti, A Giordano.

Qualitative Analysis Panel: C Borreani, E Bianchi, AM Giovannetti, E Pietrolongo.

Expert Panel: A Giordano, AM Giovannetti, L Gitto, E Pietrolongo, M Messmer Uccelli, V Torri Clerici, C Tortorella.

Centers and Investigators: Foundation IRCCS Neurological Institute C Besta, Milan: Unit of Neuroepidemiology, A Solari, A Giordano, G Ferrari, A Fittipaldo; Unit of Neuroimmunology, and Neuromuscular Diseases: P Confalonieri, AM Giovannetti, V Torri Clerici, S Rossi, R Mantegazza; Department of Neuroscience, Imaging and Clinical Sciences, G. d'Annunzio University of Chieti-Pescara, Chieti: M Onofrj, E Pietrolongo, D Farina, D Travaglini, G De Luca; Departments of Basic Medical Sciences, Neurosciences and Sense Organs, University of Bari, Bari: M Trojano, C Tortorella, E Luciannatelli, R Viterbo; Unit of Psychology, IRCCS Foundation Istituto Nazionale per la Cura dei Tumori, Milan: C Borreani, E Bianchi; AISM, Department of Health Services and Research, Genoa: M Messmer Uccelli; Center of Economics and International Studies (CEIS), Faculty of Economics, Tor Vergata University of Rome, Rome: L Gitto.

Figure 2. PRISMA 2009 flow diagram of included studies



RESULTS (II) We included 5 studies. Of these, 4 were qualitative studies, and one was a retrospective cohort study (Figure 1). Five studies fulfilled the inclusion criteria and were analysed [5-9]. Of these, 4 were qualitative studies conducted in UK between 2013 and 2015[5-9], and one was a retrospective cohort study conducted in US in 2014, the latter aiming to characterize the transition to SPMS.

The qualitative studies investigated the lived experience of adults with SPMS and documented views of carers and HPs during transition. Main themes identified pertained to reclassification of SPMS, and its consequences on patients, carers and health professionals. Furthermore, possible strategies were identified to support these groups. The quality of reporting of the qualitative studies was good.

CONCLUSION Despite the importance of this topic, only few research results have been published targeting the process of transition to SPMS, mainly focussing on qualitative studies. No interventions to empower and support patients, carers, and HPs are available and more research is needed to address this important issue.

This scoping review will inform subsequent phases of the ManTra project.

- 1. Scalfari A, Neuhaus A, Daumer M, et al. Onset of secondary progressive phase and long-term evolution of multiple sclerosis. J Neurol Neurosurg Psychiatry 2014;85:67-75
- Giovannetti AM, Giordano A, Pietrolongo E, et al. on behalf of the ManTra project. Managing the transition (ManTra) Construction of a resource for persons with secondary progressive multiple sclerosis and their health professionals using a qualitative approach and online survey. BMJ Open 2017;7:e017254. doi:10.1136/bmjopen-2017-017254.
- Arksey H, O'Malley L. Scoping studies: Towards a Methodological Framework. Int J Soc Res Methodol 2005, 8:19-32. Levac D, Colquhoun H, O'Brien KK. Scoping studies: advancing the methodology. Implementation Sci 2010; 5:69
- Davies F, et al., 2015. 'You are just left to get on with it': qualitative study of patient and carer experiences of the transition to secondary
- progressive multiple sclerosis. BMJ Open 2015;5:e007674. doi:10.1136/bmjopen-2015-007674. Davies F, et al., 2016. The Transition to Secondary Progressive Multiple Sclerosis: An Exploratory Qualitative Study of Health Professionals'
- Experiences. Int J MS Care 2016; 18: 257-264
- Hourihan S (2013). The lived experience of the transition of adults with Multiple Sclerosis from Relapsing Remitting Multiple Sclerosis (RRMS) to
- Secondary Progressive Multiple Sclerosis (SPMS): an Interpretative Phenomenological Analysis. Unpublished Master of Science dissertation, Leeds Metropolitan University, Leeds. O'Loughlin E (2015). The experience of transitioning from relapsing remitting to secondary progressive Multiple Sclerosis. Research submitted in
- partial fulfilment of the requirements for the degree of Doctor in Clinical Psychology (DClinPsy). Royal Holloway, University of London, 2015. O'Loughlin E, Hourihan S, Chataway J, Playford ED, Riazi A. The experience of transitioning from relapsing remitting to secondary progressive
- multiple sclerosis: views of patients and health professionals. Disabil Rehabil 2017 Sep;39(18):1821-1828 10. Katz-Sand IK, et al. Diagnostic uncertainty during the transition to secondary progressive multiple sclerosis. Mult Scler 2014;20:1654-7.