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Novel real world evidence from mSGo, a digital support program for secondary Progressive multiple sclerosis patients in Australia using siponimod

T. Hardy[1], P. Aouad[2], M. Barnett[1,3], S. Blum[4,5], S. Broadley[6], W. Carroll[7], D. Crimmins[8], D. Griffiths[9], S. Hodgkinson[10], J. Lechner-Scott[11,12], A. Lee[13], R. Malhotra[14], P. McCombe[15], J. Parratt[16,2], C. Plummer[17], A. van der Walt[18], K. Martel[19], R. Walker[19]

[1]Brain and Mind Centre, University of Sydney, Camperdown, Australia, [2]University of Sydney, Northern Clinical School, Sharp Neurology and North Shore Private Hospital, St Leonards, Australia, [3]Royal Prince Alfred Hospital, Camperdown, Australia, [4]Faculty of Medicine, The University of Queensland, Brisbane, Australia, [5]Department of Neurology, Princess Alexandra Hospital, Woolloongabba, Australia, [6]School of Medicine, Gold Coast Campus, Griffith University, Southport, Australia, [7]Department of Neurology Sir Charles Gairdner Hospital and Perron Institute, Nedlands, Australia, [8]Central Coast Neurosciences Research, Erina, Australia, [9]Central Coast MS Clinic, Gosford Hospital, Gosford, Australia, [10]Liverpool Hospital, NSW, Australia, Liverpool, Australia, [11]Hunter Medical Research Institute, University of Newcastle, New Lambton Heights, Australia, [12]John Hunter Hospital, Hunter New England Local Health District Australia, New Lambton, Australia, [13]Flinders University College of Medicine and Public Health, Flinders Medical Centre, Bedford Park, Australia, [14]Canberra Specialist Centre, Deakin, Australia, [15]University of Queensland, St Lucia, Australia, [16]Department of Neurology and Clinical Neurophysiology, St Leonards, Australia, [17]St Vincent's Hospital Melbourne, Centre for Neurosciences and Neurological Research, Fitzroy, Australia, [18]Department of Neuroscience, Central Clinical School, Monash University, Melbourne, Australia, [19]Novartis Pharmaceuticals Australia, Macquarie Park, Australia

Introduction: Siponimod is approved in Australia for adults with secondary progressive multiple sclerosis (SPMS). Prescreen requirements for siponimod include a *CYP2C9* genotype test to determine maintenance dosing. An integrated digital platform, 'MSGo', was developed by Novartis and RxMx ® to support Healthcare Professionals and their multiple sclerosis patients.
Objective: Data derived exclusively from MSGo was utilised to explore the onboarding experience of siponimod patients in Australia.
Aims: To provide real world evidence on siponimod for SPMS patients in Australia.
Methods: The study enrolled >350 adults with SPMS registered in MSGo for siponimod in Australia. Primary endpoint is the average time for onboarding with key secondary endpoints addressing adherence and variables that influence onboarding and adherence.
Results: Final data extraction on April 20th, 2022 included 368 patients (median age of 59y). *CYP2C9* genotype testing took a median of 19 days (95%CI 17-21) from registration and maintenance doses of 2mg (n=166) or 1mg (n=27) were initiated as per label recommendations; 1mg was initiated for two rare allele genotypes (**1*5* and **1*11*) in the absence of label recommendations. Mixture-cure modelling estimated that 58% of patients will ever initiate siponimod, with a median time to initiation of 56d (95%CI 47-59) from registration. Among those who initiated siponimod the most common reported reason for delayed initiation was 'waiting for vaccination'. Self-reporting of daily treatment, captured under the treatment reminder function in MSGo, had a drop-off of ~25% after the first week of initiation; a continued decline in reporting over time limited assessment of adherence. Continued self-reporting of daily dosing trended lower with older patients with only 28% of those >70y continuing to self-report at day 90 compared to 47-69% with the younger age groups. The study uncovered the important role of care partners, with Cox regression analyses demonstrating that SPMS patients who nominated a care partner were more likely to initiate (HR:2.1, 95%CI 1.5-3.0) and to continue self-reporting their daily medication (HR:2.2, 95%CI 1.3-3.7). A total of 90 patients discontinued the study; 48 prior to and 42 after siponimod exposure.
Conclusions: This study provides insights into siponimod onboarding for adults living with SPMS in Australia and demonstrates the impact of MSGo and care partner support during a period challenged by the COVID-19 pandemic.

Disclosure: Todd Hardy has received speaking fees or received honoraria for serving on advisory boards for Biogen, Merck, Teva, Novartis, Roche, Bristol-Myers Squibb and Sanofi-Genzyme and is Co-Editor of Advances in Clinical Neurosciences and Rehabilitation.
Patrick Aouad has received honoraria for research, speaking engagements, advisory board contributions and academic travel from Biogen, Sanofi Genzyme, Novartis, Merck, Roche and Teva and has received honoraria for research, speaking engagements, advisory board contributions and academic travel from Biogen, Sanofi Genzyme, Novartis, Merck, Roche and Teva.
Michael Barnett reports research grants from Genzyme-Sanofi, Novartis, Biogen, and Merck outside the submitted work and is a co-founder of RxMx and Research Director for the Sydney Neuroimaging Analysis Centre.
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Kate Martel and Rob Walker are employees of Novartis Pharmaceuticals Australia.