

Innovation and Impact

Contributions to Best Practice Guidelines

1. I lead the Canadian SCI Standing and Walking Measures Group. The primary initiative of the group over the past 7 years has been the development and implementation of a standardized approach to the assessment of walking ability during inpatient SCI rehabilitation; the Standing and Walking Assessment Tool (SWAT). The SWAT is considered best practice for walking assessment in the sub-acute phase of SCI. This approach has been adopted by 11 of the 15 rehabilitation facilities that have designated SCI beds in Canada. Recently we have been working with a few sites in New Zealand that are interested in adopting the SWAT. This past year was significant for the Canadian SCI Standing and Walking Measures Group as the first publication concerning the SWAT was produced (currently in press with the *Journal of Spinal Cord Medicine*). I was lead author on this publication.

Musselman KE, Lemay JF, Walden K, Harris A, Gagnon D, Verrier M. The standing and walking assessment tool for individuals with spinal cord injury: a qualitative study of validity and clinical use. *Journal of Spinal Cord Medicine*, In press May 2019.

2. This past year I was also involved with the development of key walking indicators for accreditation standards for SCI rehabilitation. These walking indicators are being implemented as the Canadian accreditation standards for walking rehabilitation post-SCI (SCI-High Project). I was the lead author on the publication outlining the new accreditation standards.

Musselman KE, Verrier MC, Flett H, Nadeau S, Yang JF, Farahani F, Alavinia SM, Omidvar M, Wiest MJ, Craven BC. Development of walking indicators to advance the quality of spinal cord injury rehabilitation: SCI-High Project. *Journal of Spinal Cord Medicine*, In press June 2019.

Contributions to Knowledge Translation

1. I am the Editor of Synapse, which is the publication of the Neurosciences Division of the Canadian Physiotherapy Association. I plan issues, including determining the issue themes and soliciting, writing and editing articles/editorials. Four issues are produced each year. The target audience is physical therapists and therapy assistants working in neurorehabilitation in Canada. The articles highlight clinical initiatives and research projects being led by physical therapists, students and assistants from across the country.

2. Within the review period I taught over 100 physical and occupational therapists continuing education in the use of functional electrical stimulation (FES) in neurorehabilitation. In-person courses were taught in Winnipeg, Vancouver and Toronto. The online FES course that I teach involved therapists from across Canada, as well as Finland, Spain, Saudi Arabia and Brazil.

Course Instructor. *Functional Electrical Stimulation in SCI Rehabilitation*. GF Strong Rehabilitation Hospital, Vancouver, BC, Canada. Mar 9 2019.

Course Instructor. *Functional Electrical Stimulation in Pediatric Rehabilitation.* Holland Bloorview Children's Rehabilitation Hospital, Toronto, ON, Canada. Feb 2 2019.

Course Instructor. *Functional Electrical Stimulation in Neurorehabilitation.* Winnipeg, MB, Canada. June 3 2018.