

Comprehensive Curriculum on Spasticity Assessment and Management

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INTRODUCTION

ToxNET is a global educational initiative that aims to improve the quality of care for people with spasticity. The ToxNET group comprises 19 neurological rehabilitation specialists (clinicians and scientists) with a combined experience of more than 250 years in treating poststroke spasticity. The mission of ToxNET is to raise awareness of the best clinical practice for patients with spasticity and – by providing readily accessible tools for all clinicians who treat spasticity – improve patient outcomes.

In 2020, the group published a Consensus Paper: A Practical Guide to Optimizing the Benefits of Post-Stroke Spasticity Interventions with Botulinum Toxin A: an International Group Consensus. (J Rehabil Med, 2021;53:jrm00134. doi: 10.2340/16501977-2753.)

Following this paper, this curriculum now aims to provide a blueprint, comprehensive training course covering the management of spasticity. The four different modules cover:

- **Module 1: Pathophysiology and Assessment; Goal Setting.** Covering the underlying pathophysiology of spasticity and identifying the muscles involved and the extent of that involvement. The importance of patient involvement and goal setting is considered as well as the best tools for patient assessment
- **Module 2: Nonsurgical Management.** Covering the most commonly used drugs and interventions. The optimal use of baclofen or botulinum toxin A (BoNT-A) and suitable adjunctive therapies are included in detail
- **Module 3: Surgical Management.** Covering patient selection for surgery and the appropriate surgical techniques to employ
- **Module 4: Optimizing Outcomes.** A helpful troubleshooting guide, which provides practical algorithms for assessing

the reasons behind suboptimal with treatment oral drugs, alcohol/phenol, intrathecal baclofen, or BoNT-A.

The entire group was divided into four subgroups, with each focusing on one particular module. However, all members of the group made contributions based on their clinical experience across the whole curriculum. The modules were refined by each subgroup and then circulated to everyone for approval. Illustrative case histories are provided; in some instances, videos allow the reader to fully appreciate the movement disorder caused by the spasticity of different muscles. Competency assessments allow the reader to test how well they have assimilated the information in each module.

We hope that this Curriculum will be widely used and will contribute to improving outcomes for patients requiring treatment and rehabilitation for spasticity.

This supplement comprises an introduction and four modules covering different aspects of spasticity assessment and management. All authors are listed alphabetically and each module acknowledges the authors responsible for that module. However, all authors were given the opportunity to read and comment on the entire supplement. All authors met the criteria for authorship and each author believes the manuscript represents honest work.

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Conflicts of interest

The support from Merz covered all meeting expenses. However, the curriculum and all content were developed by the authors independently of the sponsor. No member of the group was paid for contributing to these manuscripts. In addition, the following authors would declare conflicts of interest as follows:

- Dr. Alexander Balbert has attended sponsored meetings and received honoraria from Merz
- Dr. Ganesh Bavikatte has attended sponsored meetings, participated in research activities, and received honoraria from Merz, Allergan, and Ipsen
- Dr. Djamel Bensmail is a Consultant for MERZ, Medtronic, IPSEN and Allergan.
- Dr. Francesca Bianchi has no other conflicts of interest
- Dr. Stefano Carda has received travel reimbursements and educational grants from Merz, AbbVie, Medtronic and Almirall.
- Prof. Thierry Deltombe has served as investigator, speaker, and advisor for Allergan, Merz, and Ipsen
- Dr. Nathalie Draulans has attended sponsored meetings from Merz, Ipsen and Allergan
- Dr. Steven Escaldi has received a consulting honorarium from Merz
- Prof. Gerard Francisco is a consultant to Abbvie, Ekso, Flowonix, Merz, and Sword Health and has received research grants from AbbVie, Merz, Microtransponder, Ottobock, Parker Hannifin, ReWalk, and Revance Therapeutics. He is the Editor-in-Chief of the Journal of ISPRM, but re-assigned editorial responsibilities specific to this journal to other members of the journal editorial board, who have no conflict of interest
- Dr. Raphaël Gross receives financial support by Merz, Allergan, and Ipsen for educational activities
- Dr. Jorge Jacinto Has received honoraria for consulting, scientific advisory, lecturing, peer training, and clinical research, from Allergan/Abbvie, Ipsen, and Merz.
- Dr. Nicholas Ketchum is a consultant for Merz, Allergan, Ipsen, and Medtronic
- Dr. Franco Molteni has no other conflicts of interest
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- Dr. Patrik Säterö has performed lectures and training in spasticity treatment for Allergan, Ipsen, and Merz since 2005
- Dr. Monica Verduzco-Gutierrez has been a consultant for Allergan, Merz, Ipsen, and Piramal
- Dr. Heather Walker has attended sponsored meetings, participated in research activities, and received honoraria from Merz and Ipsen
- Prof. Jörg Wissel is a Consultant and Speaker for Abbvie-Allergan, Merz, Medtronic, Ipsen, Shionogi
- Máximo Zimerman has no other conflicts of interest.