

# Electrical Stimulation and Neuromuscular Disorders

CICSD

## Neuromuscular Electrical Stimulation in Dysphagia Management: Clinician Use and Perceived Barriers

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**D**ysphagia, or impaired swallow function, is a potentially life-threatening disorder that is becoming increasingly prevalent in both the pediatric and adult populations. Dysphagia is often a clinical consequence of aging (presbyphagia); congenital abnormalities; structural damage; and a variety of medical conditions, including those related to cerebrovascular events (stroke), head and neck cancer, neurodegenerative disorders, and traumatic brain injury (Ashford et al., 2009; Huckabee & Doetigen, 2007; McCabe et al., 2009). The exact prevalence of dysphagia among these populations

is not known, although it is estimated to be as high as 45% in typically developing children (including feeding disorders; as reviewed in Lefton-Greif, 2008), 22% in individuals over the age of 50 (Howden, 2004; Lindgren & Jansson, 1991), and 60%–80% in patients with a variety of health conditions and developmental disorders (Howden, 2004; Lefton-Greif, 2008; Martino et al., 2005). Given the widespread nature of dysphagia, in terms of population as well as prevalence, it is important for speech-language pathologists (SLPs) in all settings to be knowledgeable regarding both current and new practices in dysphagia

**ABSTRACT: Purpose:** Neuromuscular electrical stimulation (NMES) is a relatively new yet controversial approach to the treatment of dysphagia that is gaining clinical popularity. The purpose of this study was to contribute to our understanding of the clinical viability of NMES, in light of empirical controversy, by describing current trends in the use/nonuse of NMES and clinician-perceived barriers to use among a sample of speech-language pathologists (SLPs) in the state of Iowa.

**Method:** Eighty SLPs employed in a variety of professional settings completed an online survey on practice patterns and perceptions related to general clinical practice, dysphagia management, and the use of NMES. Responses from 73 of these participants were included for quantitative and qualitative analyses.

**Results:** Despite high familiarity with NMES (70%) and the frequent provision of dysphagia services (74% of facilities and 62% of individuals), only 17% of facilities providing dysphagia services were reported to offer NMES as a treatment option, and only 3 respondents personally

used this treatment modality. A variety of perceived benefits and disadvantages were reported by the nonusers; however, a majority indicated uncertainty related to the outcomes and whether the literature supports the use of NMES. Identified barriers to the adoption of NMES were related to both infrastructure (e.g., cost) and belief (e.g., misconceptions).

**Conclusion:** The focus of this study highlights the clinically relevant question of why clinicians may not adopt a new treatment modality, or specifically, why clinicians are not using NMES in their treatment of individuals with dysphagia, despite its presence as a viable treatment option. The perceptions and misconceptions related to NMES as reported by the nonusers indicate the necessity of not only continuing investigations into the use and outcomes of NMES but also targeting better dissemination of these results to best address evidence-based practice.

**KEY WORDS:** dysphagia, electrical stimulation, evidence-based practice, survey

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This is a PDF-only article. The first page of the PDF of this article appears below. PDF extract preview. Request Permissions. If you wish to reuse any or all of this. Electrical Stimulation and Neuromuscular Disorders: Medicine & Health Science Books @ whataboutitaly.com In many cases of neuromuscular disorders the physician is faced with a complete lack of therapeutic approaches. This helplessness places the. Muscle strengthening through electric stimulation combined with low-resistance weights in patients with neuromuscular disorders. Milner-Brown HS(1), Miller. Neuromuscular electrical stimulation for muscle weakness in adults with advanced disease. Jones S(1), Man WD, Gao W, Higginson IJ, Wilcock. Neuromuscular electrical stimulation for muscle weakness in adults with advanced disease. Maddocks M(1), Gao W, Higginson IJ, Wilcock A. This field of medicine is known variously as electrical muscle stimulation (EMS), neuromuscular electrical stimulation (NMES), functional electrical stimulation. Neuromuscular electrical stimulation (NMES), consisting to evoke . or treatment of neuromuscular disorders (transcutaneous electrical nerve. Neuromuscular electrical stimulation (NMES) has been shown to provide positive effects Children with CP demonstrate various movement disorders, including. Library , Issue 11 whataboutitaly.com Neuromuscular electrical stimulation for muscle weakness in adults with advanced disease ( Protocol). Neuromuscular electrical stimulation improves exercise tolerance in chronic obstructive pulmonary disease patients with better preserved fat-free mass. Electrical stimulation and neuromuscular disorders. The papers are the proceedings [of] the First International Symposium on Electrical Stimulation and. Cerebral palsy (CP) is a term employed to define a group of non-progressive neuromotor disorders caused by damage to the immature or. Member does not have hip and knee degenerative disease and has no history of long . Neuromuscular electrical stimulation (NMES) can be grouped into 2. cal uses of neuromuscular electrical stimulation (NMES) for functional and therapeutic applications in must be free of significant lung disease or primary.

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