Functional independence measure predicts the outcome of clean intermittent catheterization training in patients with multiple sclerosis'

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Abstract

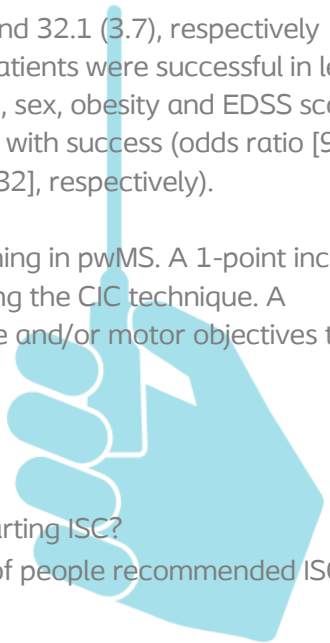
Background: Clean intermittent catheterization (CIC) is the reference treatment of urinary retention in people with multiple sclerosis (pwMS). Predicting which patients could use this treatment, based on their motor and cognitive abilities, is crucial.

Objectives: To determine whether the Functional Independence Measure (FIM), used to assess degree of disability, can predict the outcome of CIC training in pwMS.

Methods: All pwMS attending a tertiary neuro-urology department between 2011 and 2019 and eligible for CIC were included in this retrospective study. Level of disability was assessed with the FIM by an occupational therapist. Success for learning CIC, defined as the ability to perform at least 2 trials of the technique, was recorded at the end of the session by a continence nurse and a physiatrist. The association between the FIM and success for learning CIC was assessed by multivariable analysis.

Results: We included 395 patients (mean [SD] age 49.8 [12.0] years; 70% women). More than half of patients had relapsing-remitting disease, and the Expanded Disability Status Scale score was 6. Mean FIM total, motor and cognitive scores were 108.0 (14.2), 75.9 (12.3) and 32.1 (3.7), respectively (maximal scores: 126, 91 and 35). At the end of the session, 87% of patients were successful in learning CIC. After adjustment of potential confounding variables including age, sex, obesity and EDSS score, FIM total, motor and cognitive subscores were significantly associated with success (odds ratio [95% confidence interval] 1.06 [1.03–1.08], 1.05 [1.03–1.08], 1.21 [1.12–1.32], respectively).

Conclusions: FIM was an independent predictor of successful CIC training in pwMS. A 1-point increase in FIM was associated with 6% increased odds of successfully mastering the CIC technique. A widespread use of the FIM could help determine the different cognitive and/or motor objectives that need to be improved before CIC teaching.



Areas for reflection

- Do you use any tools to assess an individual's ability before starting ISC?
- Do you think use of such tools would impact on the numbers of people recommended ISC and the success rates for long term use?

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