First-line urological evaluation in multiple sclerosis: validation of a specific decision-making algorithm

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Abstract
Background: Urinary disorders that lead to urological complications are frequent in multiple sclerosis, resulting in diminished quality of life. Urinary management guidelines are scarce and targeted to neuro-urology specialists.
Objective: This study aimed to construct and validate an algorithm dedicated to neurologists and general practitioners to facilitate first-line evaluation and treatment of urinary disorders associated with multiple sclerosis.
Methods: 49 items concerning urological symptom evaluation and therapeutic strategies were derived from literature analysis and evaluated by an expert panel. The Delphi method established consensus between the experts and allowed development of the First-Line Urological Evaluation in Multiple Sclerosis (FLUE-MS) algorithm. Two questions from the Urinary Bothersome Questionnaire in Multiple Sclerosis were included and their validation to verify comprehensiveness and acceptability was also conducted.
Results: Three rounds of expert review obtained consensus of all 49 items and allowed finalisation of the algorithm. Comprehension and acceptability of two Urinary Bothersome Questionnaire in Multiple Sclerosis questions were verified (mean comprehensiveness score: 1.99/2 [99.7% total comprehensiveness], mean acceptability score: 1.99/2 [99.1% complete acceptability]).
Conclusion: The FLUE-MS algorithm was designed for neurologists and general practitioners, enabling identification of ‘red flags’, timely patient referral to specialist neuro-urology units, and appropriate first-line therapy.

Keywords
Algorithms, urinary incontinence, multiple sclerosis, overactive bladder, urinary incontinence – urge, urination disorders

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