

4 panelists (1 psychiatrist, 2 neurologists/MDSs, and 1 APP) who tested the questions in clinical practice for revision and refinement. The same group also worked with the sponsor to develop 2 additional sections that could be used to elicit more information from patients. The panel recognized the need for a tool that could facilitate telehealth screening for TD, including audio-only interactions. Therefore, practices from speech-language pathologists (eg, diadochokinetics) were used to refine the questionnaire.

**Results.** Part 1 of the MIND-TD questionnaire includes a yes-or-no question for each of the 4 following topics: presence of extra or unwanted movements (Movement); feelings of embarrassment or self-consciousness (Impact); if anyone else has noticed the movements (Notice); and if movements interfere with everyday routines (Daily Activities). Part 1 can be administered by any trained medical staff, either in person or via telehealth (with video or audio-only). Routine administration is suggested in all patients who meet any of the following criteria: current or prior use of any first- or second-generation antipsychotic; use of an anticholinergic medication in conjunction with a current or past antipsychotic; or current diagnosis of TD. Part 2 of the MIND-TD questionnaire has 2 sections. The first (Thorough Interview) includes 9 items related to physical/functional difficulties (eg, eating, speaking, walking, and gripping objects) and 3 simple instructions for speech difficulties. The second section (Differentiate) includes checklists of characteristic movements for TD and drug-induced parkinsonism, along with an item related to akathisia and suggestions for observing abnormal or involuntary movements. Part 2 should be administered by the treating HCP in patients who have abnormal movements that may be related to TD. Part 2 requires visual observation of the patient, whether in-person or via video.

**Conclusions.** MIND-TD is a screening questionnaire that can facilitate a dialogue between HCPs and patients about the risks, symptoms, and impact of TD. The MIND questions can stand alone and be administered during in-person visits or telehealth visits (video or audio-only). The TD section can be used to gather more information about a patient's abnormal movements.

**Funding.** Neurocrine Biosciences, Inc.

## Long-Term Effects of Once-Daily Valbenazine in Older and Younger Adults with Tardive Dyskinesia

Martha Sajatovic, MD<sup>1</sup>, Khody Farahmand, PharmD<sup>2</sup>, Chirag Shah, PharmD<sup>2</sup> and Leslie Lundt, MD<sup>2</sup>

<sup>1</sup>Case Western Reserve University School of Medicine, Cleveland, OH, USA, and  
<sup>2</sup>Neurocrine Biosciences, Inc., San Diego, CA, USA

### Abstract

**Introduction.** Older patients taking a dopamine receptor blocking agent (eg, first- or second-generation antipsychotic) have an increased risk for tardive dyskinesia (TD), a persistent and potentially disabling movement disorder. Valbenazine, a selective and potent vesicular monoamine transporter 2 inhibitor, is approved for once-daily treatment of TD with no dosing adjustments required for older patients. This analysis of valbenazine clinical

trial data, which is the first to evaluate an approved TD medication in a population  $\geq 65$  years, was conducted to better understand treatment outcomes in older patients.

**Methods.** Data from two 48-week long-term studies (KINECT 3-extension, KINECT 4) were pooled and analyzed in older ( $\geq 65$  years) and younger ( $< 65$  years) participants. Analyses based on the Abnormal Involuntary Movement Scale (AIMS) total score included: mean change from baseline (BL); clinically meaningful response ( $\geq 30\%$  improvement from BL [AIMS-30%]); and protocol-defined response ( $\geq 50\%$  improvement from BL [AIMS-50%]). Additional analyses included response thresholds for Clinical Global Improvement-Tardive Dyskinesia and Patient Global Impression of Change as follows: rating of "minimally improved" or better (score  $\leq 3$ ) at week 48 (CGI-TD  $\leq 3$ , PGIC  $\leq 3$ ); rating of "much improved" or "very much improved" (score  $\leq 2$ ) at week 48 (CGI-TD  $\leq 2$ , PGIC  $\leq 2$ ).

**Results.** AIMS outcomes in the older subgroup were generally comparable to (or better than) outcomes in the younger subgroup and overall study populations. In participants  $\geq 65$  years, pooled AIMS results indicated substantial improvements in TD movements with valbenazine 40 mg ( $n = 8$ ) and 80 mg ( $n = 20$ ): mean change from BL ( $-6.4$  and  $-9.8$  [for 40 and 80 mg, respectively]); AIMS-30% (75% and 95%); AIMS-50% (75% and 85%). CGI-TD and PGIC response rates indicated that clinician- and patient-reported global improvements were also substantial in the older subgroup: CGI-TD = 3 (88% and 100% [for 40 and 80 mg, respectively]); CGI-TD = 2 (88% and 95%); PGIC = 3 (88% and 100%); PGIC = 2 (75% and 90%).

**Conclusions.** These analyses, which are the first to evaluate long-term valbenazine effects in patients  $\geq 65$  years, indicate that older study participants had clinically meaningful and substantial improvements in TD that were comparable to (or better than) those in younger participants.

**Funding.** Neurocrine Biosciences, Inc.

## Rhabdomyolysis in Young Adult Male Stabilized on Mirtazapine and with History of COVID-19 Infection

Christine Philippe, MD, Douglas Misquitta, MD and Julie Niedermier, MD

The Ohio State University, Columbus, OH, USA

### Abstract

**Study Objective.** The purpose of this case study is to review the clinical presentation and medical workup of a young adult male presenting with rhabdomyolysis in the setting of suspected contributing factors, including treatment with mirtazapine and history of COVID-19 infection.

**Method.** This case study involves a 19-year-old male in a residential setting with a psychiatric history of major depressive disorder and post-traumatic stress disorder who had been stabilized on mirtazapine for 9 months. Then, the patient exhibited fever, sore throat, cough, nausea, diarrhea, and malaise and was