# Clinician-Reported Patient Awareness of Symptoms and Severity of Tardive Dyskinesia in Patients with Schizophrenia/Schizoaffective Disorder Treated with VMAT2 Inhibitors

## Jonathan M. Meyer,<sup>1</sup> Ericha Franey,<sup>2</sup> Leslie Lundt,<sup>2</sup> Betsy Benning,<sup>3</sup> Edward Goldberg,<sup>2</sup> Chuck Yonan,<sup>2</sup> Rahul Dhanda<sup>2</sup>

<sup>1</sup>University of California San Diego, San Diego, CA; <sup>2</sup>Neurocrine Biosciences, Inc., San Diego, CA; <sup>3</sup>IQVIA, San Mateo, CA

### INTRODUCTION

- Vesicular monoamine transporter 2 (VMAT2) inhibitors are currently recommended as first-line therapies for tardive dyskinesia (TD),<sup>1,2</sup> a persistent and potentially disabling drug-induced movement disorder<sup>3</sup>
- Valbenazine (INGREZZA<sup>®</sup>) was the first VMAT2 inhibitor approved for the treatment of TD in adults, with efficacy and safety demonstrated in 3 randomized, double-blind, placebo-controlled trials<sup>4-6</sup> and 3 long-term studies<sup>7-9</sup>
- This real-world study describes the association between clinician reported patient awareness of TD symptoms and clinician-assessed symptom severity in patients treated with a VMAT2 inhibitor

### **METHODS**

From 24-July-2019 to 30-August-2019, clinicians who prescribed valbenazine within the past

24 months were invited to participate in the study

- Clinicians extracted data from 1–10 patients' charts and completed a survey for additional information
- Chart data included: demographics, treatment with any VMAT2 inhibitor (valbenazine, deutetrabenazine, tetrabenazine), psychiatric conditions (primary and comorbid), and antipsychotic treatment
- Survey data included: treatment outcomes, patients' TD symptoms and severity, and patient awareness of TD
- Awareness of TD was based on clinician perception or recollection
- Patient awareness of TD (yes or no) was analyzed by TD symptom severity region (mild, moderate, or severe) in the following groups:
- Overall patient population
- Patients with schizophrenia or schizoaffective disorder
- Patients with a mood disorder (e.g., bipolar disorder, major depressive disorder) or other primary psychiatric condition

### RESULTS

- 163 clinicians (113 psychiatry, 46 neurology, 4 primary care) provided data for 601 adult TD patients
- Of the 601 patients, 553 (92%) were rated as being aware of having TD symptoms in at least 1 body region; 48 (8%) were not aware of any TD symptoms
- Patients' characteristics were generally similar between those who were aware of their TD and those who were not aware (**Table 1**)
- In both groups, ~50% of patients had schizophrenia or schizoaffective disorder and ~40% had bipolar or major depressive disorder
- Comorbid depression and anxiety were common in both groups, but slightly more prevalent in patients who were not aware of their TD

	Patients Not Aware of TD (n=48)	Patients Aware of TD (n=553)
Currently taking antipsychotics <sup>a</sup>	71%	70%
Stopped taking antipsychotics <sup>a</sup>	19%	20%
TD attributed to metoclopramide <sup>b</sup>	8%	2%
Primary psychiatric condition <sup>c</sup>		
Schizophrenia	30%	32%
Bipolar disorder	26%	30%
Schizoaffective disorder	23%	23%
Major depressive disorder	12%	11%
Dementia/Alzheimer's disease/agitation	5%	2%
Other condition (unspecified)	5%	2%
Psychiatric comorbidities <sup>d</sup>		
Depression	21%	28%
Anxiety disorder	27%	33%
Substance abuse	17%	18%
MAT2 inhibitor		
/albenazine	69%	69%
Deutetrabenazine	27%	28%
etrabenazine	4%	3%
uration of TD symptoms		
<1 year	19%	18%
I-5 years	60%	61%
6-10 years	19%	16%
11-20 years	2%	4%
20 years	0%	2%
D symptom location		
lead	83%	82%
Trunk area	19%	26%
Jpper extremities	48%	41%
ower extremities	13%	18%

Based on clinician responses to items regarding their recollection/perception of patient's awareness of TD (yes, no) and assessment of TD severity (mild, moderate, severe), patient awareness in all 4 regions of the head (face, lips, tongue, and jaw) was lower with mild symptoms than with moderate or severe symptoms (Figure 1)



No significant differences across severities or between SCZD and Mood subgroups were detected Number of patients with unknown psychiatric conditions by body region: face (n=37); lips (n=44); iaw (n=35); tongue (n=38) TD, tardive dyskinesia; SCZD, schizophrenia or schizoaffective disorder; Mood, mood or other psychiatric disorde

In the neck and shoulders, patient awareness of TD was lower with mild symptoms than with moderate or severe symptoms; in the hips, awareness was highest with moderate symptoms (**Figure 2**)



In the wrists and fingers, patient awareness of TD was lower with mild or moderate symptoms than with severe symptoms; in the arms and hands, awareness was similar across mild, moderate, and severe symptoms (Figure 3)



In the legs and toes, patient awareness of TD tended to be higher with severe symptoms than with moderate or mild symptoms, although the results are limited by the number of patients with severe symptoms (Figure 4)

### **Lower Extremeties** 53% Moderate + Severe **Legs** (n=94) SCZD 55% Knees (n=66) Mood Moderate + 49% Ankles (n=73) Mood Moderate + 53% Toes (n=72) Moderate -, tardive dyskinesia; SCZD, schizophrenia or schizoaffective disorder; Mood, mood or other psychiatric disorde CONCLUSIONS

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### Figure 4. Patient Awareness of TD by Symptom Severity in the Lower **Extremities**



In this study of patients who were prescribed a VMAT2 inhibitor for TD, 92% were rated as being aware of having TD symptoms in at least 1 body region Clinician rating of patient awareness did not appear to differ between patients with schizophrenia/schizoaffective disorder and those with a mood disorder or other psychiatric condition

Patient characteristics were generally similar between aware and non-aware patients, although comorbid depression and anxiety were slightly more prevalent in those who were not aware of having TD symptoms in any body region Clinician rating of patient TD awareness was generally higher in those determined to have moderate-to-severe symptom severity as assessed by the clinician

More research is needed to understand how awareness and severity contribute to TD burden, and whether different treatment strategies are needed based on these factors

### REFERENCES

1. The American Psychiatric Association Practice Guideline for the Treatment of Patients with Schizophrenia. Available at: https://www.psychiatry.org/psychiatrists/practice/clinical-practice-guidelines. 2. Bhidayasiri R, et al. J Neurol Sci. 2018;389:67-75.

- 3. Jain R, Correll CU. J Clin Psychiatry. 2018;79:nu17034ah1c.
- KINECT Study. Available at https://clinicaltrials.gov/ct2/show/NCT01688037.
- 5. O'Brien CF, Jimenez R, Hauser RA, et al. Mov Disord. 2015;30:1681-7.
- 6. Hauser RA, Factor RA, Marder SR, et al. Am J Psychiatry. 2017;174:476-84
- 7. Factor RA, Remington G, Comella CL, et al. J Clin Psychiatry. 2017;78:1344-50
- 8. Marder SR, Singer C, Lindenmayer JP, et al. J Clin Psychopharmacol. 2019;39:620-7.
- 9. Lindenmayer JP, Verghese C, Marder SR, et al. CNS Spectr. 2020;1-9.

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