## **Motivations and Barriers for Psychiatric Practice Adoption of Esketamine Nasal Spray for Treatment-Resistant Depression in the United States**

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#### Introduction

- Esketamine (Spravato<sup>tm</sup>) is a newly approved therapy for treatment-resistant depression (TRD) and major depressive disorder (MDD) with acute suicidal ideation/behavior in adults.
- While esketamine was approved by the FDA in 2020, utilization in real-world clinical practice and uptake by psychiatrists is largely unknown.
- There are several barriers to adoption for psychiatric practices that may limit patient accessibility.

### **Research Goal**

The present study assessed motivations and barriers for the adoption of esketamine in psychiatric practices in the US using a survey sent to psychiatrists.

### Methods

#### **Survey Development**

- The survey was developed based on issues identified in the published literature and from interviews with five practicing psychiatrists.
- The interviews were conducted to obtain in-depth, descriptive information to enrich our understanding of the motivations/barriers of esketamine adoption from a physician's perspective.
- The survey included questions regarding the following:
  - 1) The psychiatrist's experience administering ketamine/esketamine
  - 2) Motivations for adopting esketamine
  - 3) Barriers to adopting esketamine
  - 4) Healthcare provider's position and practice where they work
- Question formats included Likert-type scales, multiple choice, and free response
- Motivations for adopting esketamine were measured with the physician-motivation-adoption (PMA) scale.
  - Consists of six dimensions designed to capture physicians' individual motivation to adopt health care technology.

#### **Statistical Analyses**

- Descriptive statistics were conducted to analyze the survey data.
- Text responses were analyzed using Thematic Analysis
  - Thematic analysis of free response questions led to the development of codes.
  - Codes were iteratively organized and re-organized, from which overarching themes were defined to represent the issues and opinions that arose in the responses.

#### Results

- administer esketamine (N = 6) (Figure 1).

#### Table 1. Provider and practice characteristics

	Total N
	Mean or N
Administer ketamine	8
Years administering ketamine	4.9
Administer esketamine	6
Years administering esketamine	2.2
Administer both esketamine/ketamine	5
Number of clinicians at the practice	133
Number of psychiatrists at the practice	16
Professional degree	
MD	25
DO	3
Other*	3
Practice setting	
Outpatient mental health facility	10
Private solo practice	5
Academic psychiatric hospital	4
General hospital	3
Multi-setting mental health facility	3
Other**	6

\*\*includes academic outpatient clinic (n=2), Veteran Affairs (n=2), community mental health center (n=1), rural health clinic (n=1

#### Table 2. Clinician barriers for adoption of esketamine for TRD (N = 31)

Barriers to the Adoption of Esketamine	Not a	Somewhat of a	Moderate	Extreme
	barrier	barrier	barrier	barrier
	N (%)			
Investment in infrastructure to store the medication	8 (26)	11 (35)	6 (19)	6 (19)
Investment in infrastructure to monitor patients' post-administration	3 (10)	3 (10)	10 (32)	15 (48)
Investment in clinical staff	3 (10)	5 (16)	11 (35)	12 (39)
Investment in administrative staff	4 (13)	5 (16)	12 (39)	10 (32)
Necessity to sign contracts with insurance companies	5 (16)	9 (29)	9 (29)	8 (26)

#### Table 3. Clinician motivations for adoption of esketamine for TRD (N = 31)

Motivations for Adoption of Esketamine	Strongly	Somewhat	Neither agree	Somewhat	Strongly	
	disagree	disagree	nor disagree	agree	agree	
	N (%)					
Esketamine is effective for TRD	1 (3)	2 (6)	1 (3)	14 (45)	13 (42)	
Esketamine is accessible to patients	10 (32)	10 (32)	0 (0)	6 (19)	5 (16)	
Esketamine is affordable for patients	9 (30)	7 (22)	9 (29)	5 (16)	1 (3)	
Esketamine is a relatively effective						
option compared to IV ketamine for TRD	2 (6)	3 (10)	8 (26)	13 (42)	5 (16)	

#### Conclusion

- adoption of this product.
- treatment.



• The dimensions of the PMA scale with the highest average sub-scale scores were Cognitive (mean: 118, SD: 4) and Patient Benefit (mean: 108, SD: 7). ✓Thus, respondents were predominantly motivated to adopt esketamine to advance their skills (i.e., Cognitive dimension) and to improve patients' well-being based on the clinicians' perception of the effectiveness of esketamine (i.e., Patient Benefit dimension).

• To determine whether esketamine REMS program places (or would place for those that have not adopted esketamine) undue burden on psychiatric practices, we asked a free response question. For psychiatrists that do not administer esketamine (N = 25), four main issues emerged, one of which is echoed among psychiatrists that

• All respondents were asked to explain their most important concern with adopting esketamine in a comment field and four themes were identified (N = 31) (Figure 2).



## that create (or would create) undue burden on providers?"





Patients may not be able to access esketamine due to these barriers, and therefore, future research should evaluate the potential health burden associated with real or perceived barriers to

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Figure 1. Thematic map detailing the main themes and codes from the thematic analysis of the question: "Are there specific aspects of the Risk Evaluation and Mitigation Strategy (REMS) associated with esketamine