



## **1. NAME OF THE MEDICINAL PRODUCT**

Spravato® 28 mg nasal spray, solution

## **2. QUALITATIVE AND QUANTITATIVE COMPOSITION**

Each nasal spray device contains esketamine hydrochloride corresponding to 28 mg esketamine.

For the full list of excipients, see section 6.1.

## **3. PHARMACEUTICAL FORM**

Nasal spray, solution.

Clear, colourless, aqueous solution.

## **4. CLINICAL PARTICULARS**

### **4.1 Therapeutic indications**

Spravato, in combination with a Selective Serotonin Reuptake Inhibitor (SSRI) or Serotonin-Norepinephrine Reuptake Inhibitor (SNRI), is indicated for adults with treatment-resistant Major Depressive Disorder, who have not responded to at least two different treatments with antidepressants in the current moderate to severe depressive episode.

Spravato is indicated, in conjunction with oral antidepressant therapy, for the rapid reduction of depressive symptoms in adult patients with Major Depressive Disorder who have acute suicidal ideation or behavior. The effectiveness of Spravato in preventing suicide or in reducing suicidal ideation or behavior has not been demonstrated. Use of Spravato does not preclude the need for hospitalization if clinically warranted, even if patients experience improvement after an initial dose of Spravato.

### **4.2 Posology and method of administration**

The decision to prescribe Spravato should be determined by a psychiatrist.

Spravato is intended to be self-administered by the patient under the direct supervision of a healthcare professional.

A treatment session consists of nasal administration of Spravato and a post-administration observation period. Both administration and post-administration observation of Spravato should be carried out in an appropriate clinical setting.

#### Assessment before treatment

Prior to dosing with Spravato blood pressure should be assessed.

If baseline blood pressure is elevated the risks of short-term increases in blood pressure and benefit of Spravato treatment should be considered (see section 4.4). Spravato should not be administered if an increase in blood pressure or intracranial pressure poses a serious risk (see section 4.3).

Patients with clinically significant or unstable cardiovascular or respiratory conditions require additional precautions. In these patients, Spravato should be administered in a setting where appropriate resuscitation equipment and healthcare professionals with training in cardiopulmonary resuscitation are available (see section 4.4).

#### Post-administration observation

After dosing with Spravato, blood pressure should be reassessed at approximately 40 minutes and subsequently as clinically warranted (see section 4.4).

Because of the possibility of sedation, dissociation and elevated blood pressure, patients must be monitored by a healthcare professional until the patient is considered clinically stable and ready to leave the healthcare setting (see section 4.4).

#### Posology

##### *Treatment-resistant Major Depressive Disorder*

The dose recommendations for Spravato for treatment-resistant Major Depressive Disorder are shown in Table 1 and Table 2 (adults  $\geq 65$  years). It is recommended to maintain the dose the patient receives at the end of the induction phase in the maintenance phase. Dose adjustments should be made based on efficacy and tolerability to the previous dose. During the maintenance phase, Spravato dosing should be individualised to the lowest frequency to maintain remission/response.

<b>Table 1: Recommended dosing for Spravato in adults &lt;65 years with treatment-resistant Major Depressive Disorder</b>	
<b>Induction phase</b>	<b>Maintenance phase</b>
<b><u>Weeks 1-4:</u></b> Starting day 1 dose: 56 mg Subsequent doses: 56 mg or 84 mg twice a week	<b><u>Weeks 5-8:</u></b> 56 mg or 84 mg once weekly  <b><u>From Week 9:</u></b> 56 mg or 84 mg every 2 weeks or once weekly
Evidence of therapeutic benefit should be evaluated at the end of induction phase to determine need for continued treatment.	The need for continued treatment should be re-examined periodically.

<b>Table 2: Recommended dosing for Spravato in adults <math>\geq 65</math> years with treatment-resistant Major Depressive Disorder</b>	
<b>Induction phase</b>	<b>Maintenance phase</b>
<b><u>Weeks 1-4:</u></b> Starting day 1 dose: 28 mg Subsequent doses: 28 mg, 56 mg or 84 mg twice a week, all dose changes should be in 28 mg increments	<b><u>Weeks 5-8:</u></b> 28 mg, 56 mg or 84 mg once weekly, all dose changes should be in 28 mg increments  <b><u>From Week 9:</u></b> 28 mg, 56 mg or 84 mg every 2 weeks or once weekly, all dose changes should be in 28 mg increments

Evidence of therapeutic benefit should be evaluated at the end of induction phase to determine need for continued treatment.	The need for continued treatment should be re-examined periodically.
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After depressive symptoms improve, treatment is recommended for at least 6 months.

### **Major Depressive Disorder with acute suicidal ideation or behavior**

The recommended dosage for Spravato for patients with MDD who have acute suicidal ideation or behavior is 84 mg twice per week for 4 weeks. Dosage reduction to 56 mg should be made based on tolerability. After 4 weeks of treatment with Spravato, the oral antidepressant (AD) therapy should be continued, per clinical judgement.

Patients who also have TRD should be evaluated to determine need for continued treatment with Spravato beyond 4 weeks.

#### *Food and liquid intake recommendations prior to administration*

Since some patients may experience nausea and vomiting after administration of Spravato, patients should be advised not to eat for at least 2 hours before administration and not to drink liquids at least 30 minutes prior to administration (see section 4.8).

#### *Nasal corticosteroid or nasal decongestant*

Patients who require a nasal corticosteroid or nasal decongestant on a dosing day should be advised not to administer these medicinal products within 1 hour before Spravato administration.

#### *Missed treatment session(s)*

Patients who have missed treatment session(s) during the first 4 weeks of treatment should continue with their current dosing schedule.

For patients with treatment-resistant Major Depressive Disorder who miss treatment session(s) during maintenance phase and have worsening of depression symptoms, per clinical judgement, consider returning to the previous dosing schedule (see Tables 1 and 2).

#### *Special populations*

##### *Elderly (65 years of age and older)*

In elderly patients the initial Spravato dose is 28 mg esketamine (day 1, starting dose, see Table 2 above). Subsequent doses should be increased in increments of 28 mg up to 56 mg or 84 mg, based on efficacy and tolerability.

##### *Hepatic impairment*

No dose adjustment is necessary in patients with mild (Child Pugh class A) or moderate (Child Pugh class B) hepatic impairment. However, the maximum dose of 84 mg should be used with caution in patients with moderate hepatic impairment.

Spravato has not been studied in patients with severe hepatic impairment (Child-Pugh class C). Use in this population is not recommended (see sections 4.4 and 5.2).

##### *Renal impairment*

No dose adjustment is necessary in patients with mild to severe renal impairment. Patients on dialysis were not studied.

### *Japanese and Chinese patients with treatment-resistant Major Depressive Disorder*

Efficacy of Spravato in Japanese and Chinese patients has been studied, but not established (see section 5.1).

### *Paediatric population*

The safety and efficacy of Spravato in paediatric patients aged 17 years and younger have not been established. There is no relevant use of Spravato in children less than 7 years of age in the indication for treatment-resistant depression.

### Method of administration

Spravato is for nasal use only. The nasal spray device is a single-use device that delivers a total of 28 mg of esketamine, in two sprays (one spray per nostril). To prevent loss of medicinal product, the device should not be primed before use. It is intended for administration by the patient under the supervision of a healthcare professional, using 1 device (for a 28 mg dose), 2 devices (for a 56 mg dose) or 3 devices (for an 84 mg dose), with a 5-minute rest between use of each device.

### *Sneezing after administration*

If sneezing occurs immediately after administration, a replacement device should not be used.

### *Use of the same nostril for 2 consecutive sprays*

If administration in the same nostril occurs, a replacement device should not be used.

Treatment discontinuation with Spravato does not require tapering off; based on data from clinical trials the risk of withdrawal symptoms is low.

## **4.3 Contraindications**

- Hypersensitivity to the active substance, ketamine, or to any of the excipients listed in section 6.1
- Patients for whom an increase in blood pressure or intracranial pressure poses a serious risk (see section 4.8):
  - Patients with aneurysmal vascular disease (including intracranial, thoracic, or abdominal aorta, or peripheral arterial vessels).
  - Patients with history of intracerebral haemorrhage.
  - Recent (within 6 weeks) cardiovascular event, including myocardial infarction (MI).

## **4.4 Special warnings and precautions for use**

### **Suicide/suicidal thoughts or clinical worsening**

The effectiveness of Spravato in preventing suicide or in reducing suicidal ideation or behavior has not been demonstrated.

Use of Spravato for the rapid reduction of depressive symptoms in adult patients with Major Depressive Disorder who have acute suicidal ideation or behavior does not preclude the need for hospitalization, if clinically warranted, even if patients experience improvement after an initial dose of Spravato.

Closely monitor all antidepressant-treated patients including patients treated with Spravato for clinical worsening or emergence of suicidal thoughts and behaviors, especially during the initial few months of drug therapy and at times of dosage changes. Patients (and caregivers of patients) should be alerted to the

need to monitor for any clinical worsening, suicidal behavior or thoughts and unusual changes in behavior and to seek medical advice immediately if these symptoms present.

Depression is associated with an increased risk of suicidal thoughts, self-harm and suicide (suicide related events). This risk persists until significant remission occurs, therefore, patients should be closely monitored. It is general clinical experience that the risk of suicide may increase in the early stages of recovery.

Patients with a history of suicide-related events or those exhibiting a significant degree of suicidal ideation prior to commencement of treatment are known to be at greater risk of suicidal thoughts or suicide attempts and should receive careful monitoring during treatment.

### Neuropsychiatric and motor impairments

Spravato has been reported to cause somnolence, sedation, dissociative symptoms, perception disturbances, dizziness, vertigo and anxiety during the clinical trials (see section 4.8). These effects may impair attention, judgment, thinking, reaction speed and motor skills. At each treatment session, patients should be monitored under the supervision of a healthcare professional to assess when the patient is considered stable based on clinical judgement (see section 4.7).

### Respiratory depression

Respiratory depression may occur at high doses following rapid intravenous injection of esketamine or ketamine when used for anaesthesia. Rare cases of deep sedation have been reported. Concomitant use of Spravato with CNS depressants may increase the risk for sedation (see section 4.5). During postmarketing use, rare cases of respiratory depression have been observed (see section 4.8). The majority of these cases have been reported with the use of Spravato in combination with other CNS depressants and/or in patients with comorbidities such as obesity, anxiety, cardiovascular and respiratory conditions. These events were transient in nature and resolved after verbal/tactile stimulation or supplemental oxygen. Patients should be monitored for respiratory depression.

Close monitoring is required for sedation and respiratory depression.

### Effect on blood pressure

Spravato can cause transient increases in systolic and/or diastolic blood pressure which peak at approximately 40 minutes after administration of the medicinal product and last approximately 1-2 hours (see section 4.8). A substantial increase in blood pressure could occur after any treatment session. Spravato is contraindicated in patients for whom an increase in blood pressure or intracranial pressure poses a serious risk (see section 4.3). Before prescribing Spravato, patients with other cardiovascular and cerebrovascular conditions should be carefully assessed to determine whether the potential benefits of Spravato outweigh its risks.

In patients whose blood pressure prior to dose administration is judged to be elevated (as a general guide: >140/90 mmHg for patients <65 years of age and >150/90 mmHg for patients ≥65 years of age), it is appropriate to adjust lifestyle and/or pharmacologic therapies to reduce blood pressure before starting treatment with Spravato. If blood pressure is elevated prior to Spravato administration a decision to delay Spravato therapy should take into account the balance of benefit and risk in individual patients.

Blood pressure should be monitored after dose administration. Blood pressure should be measured around 40 minutes post-dose and subsequently as clinically warranted until values decline. If blood pressure remains elevated for a prolonged period of time, assistance should promptly be sought from practitioners experienced in blood pressure management. Patients who experience symptoms of a hypertensive crisis should be referred immediately for emergency care.

### Patients with clinically significant or unstable cardiovascular or respiratory conditions

Only initiate treatment with Spravato in patients with clinically significant or unstable cardiovascular or respiratory conditions if the benefit outweighs the risk. In these patients, Spravato should be administered in a setting where appropriate resuscitation equipment and healthcare professionals with training in cardiopulmonary resuscitation are available. Examples of conditions which should be considered include, but are not limited to:

- Significant pulmonary insufficiency, including COPD;
- Sleep apnoea with morbid obesity (BMI  $\geq 35$ );
- Patients with uncontrolled brady- or tachyarrhythmias that lead to haemodynamic instability;
- Patients with a history of an MI. These patients should be clinically stable and cardiac symptom free prior to administration;
- Haemodynamically significant valvular heart disease or heart failure (NYHA Class III-IV).

### Drug abuse, dependence, withdrawal

Individuals with a history of drug abuse or dependence may be at greater risk for abuse and misuse of Spravato. Prior to prescribing Spravato, each patient's risk for abuse or misuse should be assessed and patients receiving esketamine should be monitored for the development of behaviours or conditions of abuse or misuse, including drug seeking behaviour, while on therapy.

Dependence and tolerance have been reported with prolonged use of ketamine. In individuals who were dependent on ketamine, withdrawal symptoms of cravings, anxiety, shaking, sweating and palpitations have been reported upon discontinuing ketamine.

Ketamine, the racemic mixture of arketamine and esketamine, is a medicinal product that has been reported to be abused. The potential for abuse, misuse and diversion of Spravato is minimised due to the administration taking place under the direct supervision of a healthcare professional. Spravato contains esketamine and may be subject to abuse and diversion.

### Other populations at risk

Spravato should be used with caution in patients with the following conditions. These patients should be carefully assessed before prescribing Spravato and treatment initiated only if the benefit outweighs the risk:

- Presence or history of psychosis;
- Presence or history of mania or bipolar disorder;
- Hyperthyroidism that has not been sufficiently treated;
- History of brain injury, hypertensive encephalopathy, intrathecal therapy with ventricular shunts, or any other condition associated with increased intracranial pressure.

### Elderly (65 years of age and older)

Elderly patients treated with Spravato may have a greater risk of falling once mobilised, therefore, these patients should be carefully monitored.

### Severe hepatic impairment

Due to expected increase in exposure and lack of clinical experience, Spravato is not recommended in patients with Child-Pugh class C (severe) hepatic impairment.

Hepatotoxicity has been reported with chronic ketamine use, therefore, the potential for such an effect due to long-term use of Spravato cannot be excluded. In a long-term clinical trial with patients treated for a mean total duration of exposure of 42.9 months (up to 79 months), no evidence of hepatotoxicity was observed.

#### Urinary tract symptoms

Urinary tract and bladder symptoms have been reported with Spravato use (see section 4.8). It is recommended to monitor for urinary tract and bladder symptoms during the course of treatment and refer to an appropriate healthcare provider when symptoms persist.

### **4.5 Interaction with other medicinal products and other forms of interaction**

Concomitant use of Spravato with CNS depressants (e.g., benzodiazepines, opioids, alcohol) may increase sedation, which therefore should be closely monitored.

Blood pressure should be closely monitored when Spravato is used concomitantly with psychostimulants (e.g., amphetamines, methylphenidate, modafinil, armodafinil) or other medicinal products that may increase blood pressure (e.g. xanthine derivatives, ergometrine, thyroid hormones, vasopressin, or MAOIs, such as, tranylcypromine, selegiline, phenelzine).

### **4.6 Fertility, pregnancy and lactation**

#### Women of childbearing potential

Spravato is not recommended during pregnancy and in women of childbearing potential not using contraception.

#### Pregnancy

There are no or limited data on the use of esketamine in pregnant women. Animal studies have shown that ketamine, the racemic mixture of arketamine and esketamine, induces neurotoxicity in developing fetuses (see section 5.3). A similar risk with esketamine cannot be excluded.

If a woman becomes pregnant while being treated with Spravato, treatment should be discontinued, and the patient should be counselled about the potential risk to the foetus and clinical/therapeutic options as soon as possible.

#### Breast-feeding

It is unknown whether esketamine is excreted in human milk. Data in animals have shown excretion of esketamine in milk. A risk to the suckling child cannot be excluded. A decision must be made whether to discontinue breast-feeding or to discontinue/abstain from Spravato therapy taking into account the benefit of breast feeding for the child and the benefit of therapy for the woman.

#### Fertility

Animal studies showed that fertility and reproductive capacities were not adversely affected by esketamine.

#### 4.7 Effects on ability to drive and use machines

Spravato has a major influence on the ability to drive and use machines. In clinical studies, Spravato has been reported to cause somnolence, sedation, dissociative symptoms, perception disturbances, dizziness, vertigo and anxiety (see section 4.8). Before Spravato administration, patients should be instructed not to engage in potentially hazardous activities requiring complete mental alertness and motor coordination, such as driving a vehicle or operating machinery, until the next day following a restful sleep (see section 4.4).

#### 4.8 Undesirable effects

##### Summary of the safety profile

The most commonly observed adverse reactions in patients treated with Spravato were dizziness (31%), dissociation (27%), nausea (27%), headache (23%), somnolence (18%), dysgeusia (18%), vertigo (16%), hypoaesthesia (11%), vomiting (11%), and blood pressure increased (10%).

##### Tabulated list of adverse reactions

Adverse reactions reported with esketamine are listed in the table 3 below. Within the designated system organ classes, adverse reactions are listed under headings of frequency, using the following convention: very common ( $\geq 1/10$ ); common ( $\geq 1/100$  to  $< 1/10$ ); uncommon ( $\geq 1/1,000$  to  $< 1/100$ ); rare ( $\geq 1/10,000$  to  $< 1/1,000$ ); very rare ( $< 1/10,000$ ); not known (cannot be estimated from the available data).

Table 3: List of adverse reactions

System Organ Class	Adverse Drug Reaction			
	Frequency			
	Very common	Common	Uncommon	Rare
<b>Psychiatric disorders</b>	dissociation	anxiety, euphoric mood, confusional state, derealisation, irritability, hallucination including visual hallucination, agitation, illusion, panic attack, time perception altered	psychomotor retardation, emotional distress, dysphoria	
<b>Nervous system disorders</b>	dizziness, headache, somnolence, dysgeusia, hypoaesthesia	paraesthesia, sedation, tremor, mental impairment, lethargy, dysarthria, disturbance in attention	nystagmus, psychomotor hyperactivity	seizure
<b>Eye disorders</b>		vision blurred		
<b>Ear and labyrinth disorders</b>	vertigo	tinnitus, hyperacusis		
<b>Cardiac disorders</b>		tachycardia	bradycardia	
<b>Vascular disorders</b>		hypertension	hypotension	

<b>Respiratory, thoracic and mediastinal disorders</b>		nasal discomfort, throat irritation, oropharyngeal pain, nasal dryness including nasal crusting, nasal pruritus		respiratory depression
<b>Gastrointestinal disorders</b>	nausea, vomiting	hypoesthesia oral, dry mouth	salivary hypersecretion	
<b>Skin and subcutaneous tissue disorders</b>		hyperhidrosis	cold sweat	
<b>Renal and urinary disorders</b>		pollakiuria, dysuria, micturition urgency		
<b>General disorders and administration site conditions</b>		feeling abnormal, feeling drunk, asthenia, crying, feeling of body temperature change	gait disturbance	
<b>Investigations</b>	blood pressure increased			

#### Long-term safety

Long-term safety was assessed in a Phase 3, multicentre, open-label extension study (TRD3008) in 1 148 adult patients with treatment-resistant Major Depressive Disorder representing 3 777 patient-years of exposure. Patients were treated with esketamine for a mean total duration of exposure of 42.9 months (up to 79 months) with 63% and 28% of patients receiving treatment at least 3 years and 5 years, respectively. The safety profile of esketamine was consistent with the known safety profile observed in the pivotal clinical trials. No new safety concerns were identified.

#### Description of selected adverse reactions

##### *Dissociation*

Dissociation (27%) was one of the most common psychological effects of esketamine. Other related terms included derealisation (2.2%), depersonalisation (2.2%), illusions (1.3%), and distortion of time (1.2%). These adverse reactions were reported as transient and self-limited and occurred on the day of dosing. Dissociation was reported as severe in intensity at the incidence of less than 4% across studies. Dissociation symptoms typically resolved by 1.5 hours post-dose and the severity tended to reduce over time with repeated treatments.

##### *Sedation/somnolence/respiratory depression*

In clinical trials, adverse reactions of sedation (9.3%) and somnolence (18.2%) were primarily mild or moderate in severity, occurred on the day of dosing and resolved spontaneously the same day. Sedative effects typically resolved by 1.5 hours post-dose. Rates of somnolence were relatively stable over time during long-term treatment. In the cases of sedation, no symptoms of respiratory distress were observed, and haemodynamic parameters (including vital signs and oxygen saturation) remained within normal ranges. During post-marketing use, rare cases of respiratory depression have been observed (see section 4.4).

### *Changes in blood pressure*

In clinical trials for treatment-resistant Major Depressive Disorder, increases in systolic and diastolic blood pressure (SBP and DBP) over time were about 7 to 9 mmHg in SBP and 4 to 6 mmHg in DBP at 40 minutes post-dose and 2 to 5 mmHg in SBP and 1 to 3 mmHg in DBP at 1.5 hours post-dose in patients receiving Spravato plus oral antidepressants (see section 4.4). The frequency of markedly abnormal blood pressure elevations of SBP ( $\geq 40$  mmHg increase) ranged from 8% (<65 years) to 17% ( $\geq 65$  years) and DBP ( $\geq 25$  mmHg increase) ranged from 13% (<65 years) to 14% ( $\geq 65$  years) in patients receiving esketamine plus oral antidepressant. The incidence of increased SBP ( $\geq 180$  mmHg) was 3% and DBP ( $\geq 110$  mmHg) was 4%.

### *Cognitive and memory impairment*

Cognitive and memory impairment have been reported with long-term ketamine use or drug abuse. These effects did not increase over time and were reversible after discontinuing ketamine. In long-term clinical trials, including a clinical trial with patients treated for a mean total duration of exposure of 42.9 months (up to 79 months), the effect of esketamine nasal spray on cognitive functioning was evaluated over time and performance remained stable.

### *Urinary tract symptoms*

Cases of interstitial cystitis have been reported with daily and long-term ketamine use at high doses. In clinical studies with esketamine, there were no cases of interstitial cystitis, however a higher rate of lower urinary tract symptoms was observed (pollakiuria, dysuria, micturition urgency, nocturia, and cystitis) in esketamine-treated patients compared with placebo-treated patients. In a long-term clinical trial with patients treated for a mean total duration of exposure of 42.9 months (up to 79 months), no cases of interstitial cystitis were observed.

### Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorisation of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions to:

#### Pusat Farmakovigilans

Direktorat Pengawasan Keamanan, Mutu dan Ekspor Impor Obat Narkotika, Psikotropika, Prekursor, dan Zat Adiktif Badan Pengawas Obat dan Makanan Republik Indonesia

Address: Jl. Percetakan Negara No. 23, Jakarta Pusat, 10560

Email: [pv-center@pom.go.id](mailto:pv-center@pom.go.id)

Phone: +62-21- 4244691 Ext. 1079

Website: <https://e-meso.pom.go.id/>

## **4.9 Overdose**

The potential for overdose of Spravato by the patient is minimised due to the product's design and the administration taking place under the supervision of a healthcare professional (see section 4.2).

### Symptoms

The maximum single esketamine nasal spray dose tested in healthy volunteers was 112 mg which showed no evidence of toxicity and/or adverse clinical outcomes. However, compared to the recommended dose range, the 112-mg esketamine nasal spray dose was associated with higher rates of adverse reactions, including dizziness, hyperhidrosis, somnolence, hypoaesthesia, feeling abnormal, nausea and vomiting.

Life-threatening symptoms are expected based on experience with ketamine given at 25-fold the usual anaesthetic dose. Clinical symptoms are described as convulsions, cardiac arrhythmias, and respiratory arrest. Administration of a comparable suprathreshold dose of esketamine by the intranasal route is unlikely to be feasible.

### Management

There is no specific antidote for esketamine overdose. In the case of overdose, the possibility of multiple medicinal products involvement should be considered. Management of Spravato overdose should consist of treating clinical symptoms and relevant monitoring. Close supervision and monitoring should continue until the patient recovers.

## **5. PHARMACOLOGICAL PROPERTIES**

### **5.1 Pharmacodynamic properties**

Pharmacotherapeutic group: Psychoanaleptics; Other antidepressants, ATC code: N06AX27.

#### Mechanism of action

Esketamine is the S-enantiomer of racemic ketamine. It is a non-selective, non-competitive, antagonist of the *N*-methyl-*D*-aspartate (NMDA) receptor, an ionotropic glutamate receptor. Through NMDA receptor antagonism, esketamine produces a transient increase in glutamate release leading to increases in  $\alpha$ -amino-3-hydroxy-5-methyl-4-isoxazolepropionic acid receptor (AMPA) stimulation and subsequently to increases in neurotrophic signalling which may contribute to the restoration of synaptic function in these brain regions involved with the regulation of mood and emotional behaviour. Restoration of dopaminergic neurotransmission in brain regions involved in the reward and motivation, and decreased stimulation of brain regions involved in anhedonia, may contribute to the rapid response.

#### Pharmacodynamic effects

##### *Abuse potential*

In a study of abuse potential conducted in recreational polydrug users (n=41), single doses of esketamine nasal spray (84 mg and 112 mg) and the positive control drug intravenous ketamine (0.5 mg/kg infused over 40 minutes) produced significantly greater scores than placebo on subjective ratings of “drug liking” and on other measures of subjective drug effects.

#### Clinical efficacy and safety

The efficacy and safety of Spravato nasal spray was investigated in five Phase 3 clinical studies (TRD3001, TRD3002, TRD3003, TRD3004, and TRD3005) in adult patients (18 to 86 years) with treatment-resistant depression (TRD) who met DSM-5 criteria for major depressive disorder and were non-responders to at least two oral antidepressants (ADs) treatments, of adequate dosage and duration, in the current major depressive episode. 1,833 adult patients were enrolled, of which 1,601 patients were exposed to Spravato. Additionally, 202 patients were randomised (122 patients received Spravato) in Phase 2 study TRD2005 in Japan, 252 patients were randomised (126 patients received Spravato) in Phase 3 study TRD3006 primarily in China, and 676 patients were randomised (334 patients received Spravato) in Phase 3 study TRD3013.

## Treatment-resistant depression – Short-term studies

Spravato was evaluated in three Phase 3 short-term (4-week) randomised, double-blind, active-controlled studies in patients with TRD. Studies TRANSFORM-1 (TRD3001) and TRANSFORM-2 (TRD3002) were conducted in adults (18 to < 65 years) and Study TRANSFORM-3 (TRD3005) was conducted in adults  $\geq$  65 years of age. Patients in TRD3001 and TRD3002 initiated treatment with Spravato 56 mg plus a newly initiated daily oral AD or a newly initiated daily oral AD plus placebo nasal spray on day 1. Spravato dosages were then maintained on 56 mg or titrated to 84 mg or matching placebo nasal spray administered twice-weekly during a 4-week double-blind induction phase. Spravato doses of 56 mg or 84 mg were fixed in Study TRD3001 and flexible in Study TRD3002. In Study TRD3005, patients ( $\geq$  65 years) initiated treatment with Spravato 28 mg plus a newly initiated daily oral AD or a newly initiated daily oral AD plus placebo nasal spray (day 1). Spravato dosages were titrated to 56 mg or 84 mg or matching placebo nasal spray administered twice-weekly during a 4-week double-blind induction phase. In the flexible dose studies, TRD3002 and TRD3005, up titration of Spravato dose was based on clinical judgement and dose could be down titrated based on tolerability. A newly initiated open-label oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) was initiated on day 1 in all studies. The selection of the newly initiated oral AD was determined by the investigator based on the patient's prior treatment history. In all short-term studies, the primary efficacy endpoint was change in MADRS total score from baseline to day 28.

Baseline demographic and disease characteristics for patient in TRD3002, TRD3001, and TRD3005 are presented in Table 4.

<b>Table 4: Baseline demographic characteristics for TRD3002, TRD3001, and TRD3005 (full analysis sets)</b>			
	Study TRD3002 (N=223)	Study TRD3001 (N=342)	Study TRD3005 (N=137)
Age, years			
Median (Range)	47.0 (19; 64)	47.0 (18; 64)	69.0 (65; 86)
Sex, n (%)			
Male	85 (38.1%)	101 (29.5%)	52 (38.0%)
Female	138 (61.9%)	241 (70.5%)	85 (62.0%)
Race, n (%)			
White	208 (93.3%)	262 (76.6%)	130 (94.9%)
Black or African American	11 (4.9%)	19 (5.6%)	--
Prior oral antidepressants with nonresponse (i.e., failed antidepressants)			
Number of specific antidepressants, n (%)			
2	136 (61.0%)	167 (48.8%)	68 (49.6%)
3 or more	82 (36.8%)	167 (48.8%)	58 (42.3%)
Newly initiated oral antidepressant medication initiated at randomisation, n (%)			
SNRI	152 (68.2%)	196 (57.3%)	61 (44.5%)
SSRI	71 (31.8%)	146 (42.7%)	76 (55.5%)
Withdrawn from study (for any reason), n/N (%)	30/227 (13.2%)	31/346 (9.0%)	16/138 (11.6%)

In the flexible dose study TRD3002, at day 28, 67% of the patients randomised to Spravato were on 84 mg. In study TRD3002, esketamine plus a newly initiated oral AD demonstrated clinically meaningful and statistical superiority compared to a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray (Table 5), and symptom reduction was observed as early as 24 hours post-dose.

In study TRD3001, a clinically meaningful treatment effect in change in MADRS total scores from baseline at the end of the 4-week induction phase was observed favouring Spravato plus newly initiated oral AD compared with a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray (Table 5). In Study TRD3001, the treatment effect for the Spravato 84 mg plus oral AD group compared with oral AD plus placebo was not statistically significant.

In study TRD3005, at day 28, 64% of the patients randomised to Spravato were on 84 mg, 25% on 56 mg, and 10% on 28 mg. In study TRD3005, a clinically meaningful but not statistically significant treatment effect in change in MADRS total scores from baseline at the end of the 4-week induction phase was observed favouring Spravato plus newly initiated oral AD compared with a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray (Table 5). Subgroup analyses suggest limited efficacy in the population over 75 years old.

**Table 5: Primary efficacy results for change in MADRS total score for 4-week clinical trials (ANCOVA BOCF\*)**

Study no.	Treatment group <sup>§</sup>	Number of patients	Mean baseline score (SD)	LS mean change from baseline to end of week 4 (SE)	LS mean difference (95% CI) <sup>†</sup>
TRD3001	Spravato 56 mg + oral AD	115	37.4 (4.8)	-18.9 (1.3)	-4.3 (-7.8, -0.8) <sup>#</sup>
	Spravato 84 mg + oral AD	114	37.8 (5.6)	-16.2 (1.3)	-1.2 (-4.7, 2.3) <sup>#</sup>
	Oral AD + placebo nasal spray	113	37.5 (6.2)	-14.7 (1.3)	
TRD3002	Spravato (56 mg or 84 mg) + oral AD	114	37.0 (5.7)	-17.7 (1.3)	-3.5 (-6.7, -0.3) <sup>‡</sup>
	Oral AD + placebo nasal spray	109	37.3 (5.7)	-14.3 (1.3)	
TRD3005 (≥ 65 years)	Spravato (28 mg, 56 mg or 84 mg) + oral AD	72	35.5 (5.9)	-10.1 (1.7)	-2.9 (-6.5, 0.6) <sup>#</sup>
	Oral AD + placebo nasal spray	65	34.8 (6.4)	-6.8 (1.7)	

SD = standard deviation; SE = standard error; LS Mean = least-squares mean; CI = confidence interval; AD = antidepressant

\* ANCOVA analysis using Baseline Observation Carried Forward, which means that for a patient who discontinues from treatment, it is assumed that the depression level returns to the baseline level (i.e. the depression level is the same as before start of treatment)

§ Nasally administered esketamine or placebo; oral AD = a newly initiated AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline)

† Difference (Spravato + oral AD minus Oral AD + placebo nasal spray) in least-squares mean change from baseline

‡ Treatment group that was statistically significantly superior to Oral AD + placebo nasal spray

# Median unbiased estimate (i.e., weighted combination of the LS means of the difference from Oral AD + placebo nasal spray), and 95% flexible confidence interval

### Response and remission rates

Response was defined as ≥ 50% reduction in the MADRS total score from baseline of the induction phase. Based on the reduction in MADRS total score from baseline, the proportion of patients in Studies TRD3001,

TRD3002 and TRD3005 who demonstrated response to Spravato plus oral AD treatment was greater than for oral AD plus placebo nasal spray throughout the 4-week double-blind induction phase (Table 6).

Remission was defined as a MADRS total score  $\leq 12$ . In all three studies, a greater proportion of patients treated with Spravato plus oral AD were in remission at the end of the 4-week double-blind induction phase than for oral AD plus placebo nasal spray (Table 6).

<b>Table 6: Response and remission rates in 4-week clinical trials based on BOCF* data</b>							
Study No.	Treatment group <sup>§</sup>	Number of patients (%)					
		Response rate <sup>†</sup>					Remission rate <sup>‡</sup>
		24 hours	Week 1	Week 2	Week 3	Week 4	Week 4
TRD3001	Spravato 56 mg + oral AD	20 (17.4%)	21 (18.3%)	29 (25.2%)	52 (45.2%)	61 (53.0%)	40 (34.8%)
	Spravato 84 mg + oral AD	17 (14.9%) <sup>#</sup>	16 (14.0%)	25 (21.9%)	33 (28.9%)	52 (45.6%)	38 (33.3%)
	Oral AD + placebo nasal spray	8 (7.1%)	5 (4.4%)	15 (13.3%)	25 (22.1%)	42 (37.2%)	33 (29.2%)
TRD3002	Spravato 56 mg or 84 mg + oral AD	18 (15.8%)	15 (13.2%)	29 (25.4%)	54 (47.4%)	70 (61.4%)	53 (46.5%)
	Oral AD + placebo nasal spray	11 (10.1%)	13 (11.9%)	23 (21.1%)	35 (32.1%)	52 (47.7%)	31 (28.4%)
TRD3005 (≥ 65 years)	Spravato 28 mg, 56 mg or 84 mg + oral AD	NA	4 (5.6%)	4 (5.6%)	9 (12.5%)	17 (23.6%)	11 (15.3%)
	Oral AD + placebo nasal spray	NA	3 (4.6%)	8 (12.3%)	8 (12.3%)	8 (12.3%)	4 (6.2%)

AD = antidepressant; NA = not available

\* Baseline Observation Carried Forward, which means that for a patient who discontinues from treatment, it is assumed that the depression level returns to the baseline level (i.e. the depression level is the same as before start of treatment).

§ Nasally administered Spravato or placebo; oral AD = a newly initiated AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline)

† Response was defined as  $\geq 50\%$  reduction in the MADRS total score from baseline

‡ Remission was defined as MADRS total score  $\leq 12$

# First dose was Spravato 56 mg + oral AD

### Treatment-resistant depression – Long-term studies

#### *Relapse-prevention study*

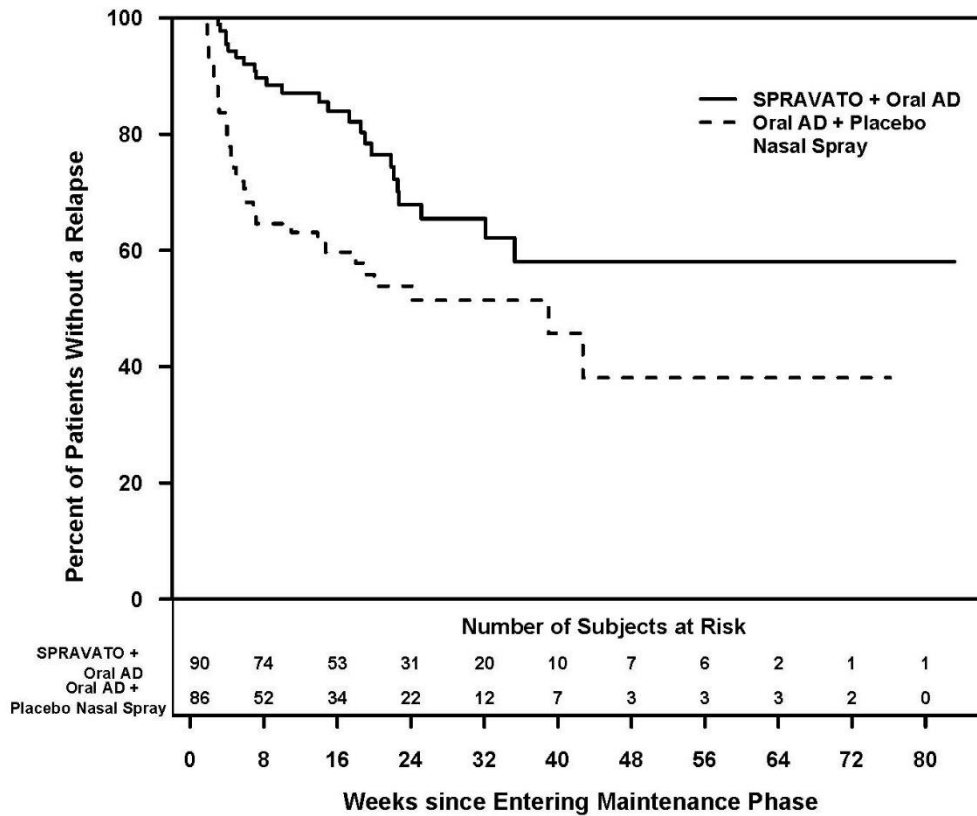
The maintenance of antidepressant efficacy was demonstrated in a relapse prevention trial. Study SUSTAIN-1 (TRD3003) was a long-term randomised, double-blind, parallel-group, active-controlled,

multicentre, relapse prevention study. The primary outcome measure to assess the prevention of depressive relapse was measured as time to relapse. Overall a total of 705 patients were enrolled; 437 directly enrolled; 150 transferred from TRD3001, and 118 transferred from TRD3002. Patients directly enrolled were administered Spravato (56 mg or 84 mg twice weekly) plus oral AD in a 4-week open label induction phase. At the end of the open label induction phase, 52% of patients were in remission (MADRS total score  $\leq 12$ ) and 66% of patients were responders ( $\geq 50\%$  improvement in MADRS total score). Patients who were responders (455), continued receiving treatment with Spravato plus oral AD in a 12-week optimisation phase. After the induction phase, patients received Spravato weekly for 4 weeks and starting from week 8, an algorithm (based on the MADRS) was used to determine the dosing frequency; patients in remission (i.e., MADRS total score was  $\leq 12$ ) were dosed every other week, however, if the MADRS total score increased to  $> 12$ , then the frequency was increased to weekly dosing for the next 4 weeks; with the objective of maintaining the patient on the lowest dosing frequency to maintain response/remission. At the end of 16 weeks of treatment period, patients in stable remission (n=176) or stable response (n=121) were randomised to continue with Spravato or stop Spravato and switch to placebo nasal spray. Stable remission was defined as MADRS total score  $\leq 12$  in at least 3 of the last 4 weeks of the optimisation phase and stable response was defined as  $\geq 50\%$  reduction in the MADRS total score from baseline for the last 2 weeks of the optimisation phase, but not in stable remission.

#### *Stable remission*

Patients in stable remission who continued treatment with Spravato plus oral AD experienced a statistically significantly longer time to relapse of depressive symptoms than did patients on a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray (Figure 1). Relapse was defined as a MADRS total score  $\geq 22$  for 2 consecutive weeks or hospitalisation for worsening depression or any other clinically relevant event indicative of relapse. The median time to relapse for a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray group was 273 days, whereas the median was not estimable for Spravato plus oral AD, as this group never reached 50% relapse rate.

**Figure 1: Time to relapse in patients in stable remission in study TRD3003 (full analysis set)**

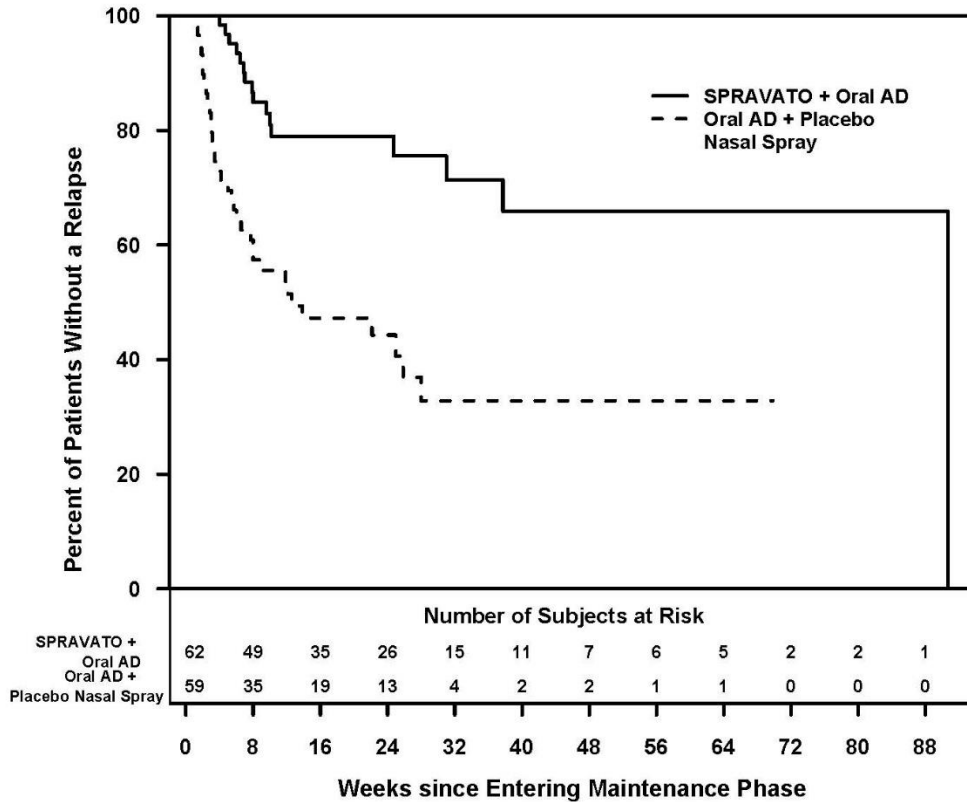


For patients in stable remission, the relapse rate based on Kaplan-Meier estimates during the 12- and 24-weeks double-blind follow up period was 13% and 32% for Spravato and 37% and 46% for placebo nasal spray, respectively.

*Stable response*

The efficacy results were also consistent for patients in stable response who continued treatment with Spravato plus oral AD; patients experienced a statistically significantly longer time to relapse of depressive symptoms than did patients on a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray (Figure 2). The median time to relapse for a newly initiated oral AD (SNRI: duloxetine, venlafaxine extended release; SSRI: escitalopram, sertraline) plus placebo nasal spray group (88 days) was shorter compared to Spravato plus oral AD group (635 days).

**Figure 2: Time to relapse in patients in stable response in study TRD3003 (full analysis set)**



For patients in stable response, the relapse rate based on Kaplan-Meier estimates during the 12- and 24-weeks double-blind follow up period was 21% and 21% for Spravato and 47% and 56% for placebo nasal spray, respectively.

Enrollment in TRD3003 was staggered over approximately 2 years. The maintenance phase was of variable duration and continued until the individual patient had a relapse of depressive symptoms or discontinued for any other reason, or the study ended because the required number of relapse events occurred. Exposure numbers were influenced by the study stopping at a pre-determined number of relapses based on the interim analysis. After an initial 16 weeks of treatment with Spravato plus oral AD, the median duration of exposure to Spravato in the maintenance phase was 4.2 months (range: 1 day to 21.2 months) in Spravato -treated patients (stable remission and stable response). In this study, 31.6% of patients received Spravato for greater than 6 months and 7.9% of patients received Spravato for greater than 1 year in the maintenance phase.

*Dosing frequency*

The dosing frequency used the majority of the time during the maintenance phase is shown in Table 7. Of the patients randomised to Spravato, 60% received 84 mg and 40% received 56 mg dose.

	<b>Stable Remission</b>		<b>Stable Responders</b>	
	<b>Spravato + Oral AD (N=90)</b>	<b>Oral AD + Placebo Nasal Spray (N=86)</b>	<b>Spravato + Oral AD (N=62)</b>	<b>Oral AD + Placebo Nasal Spray (N=59)</b>
<b>Majority dosing frequency</b>				
Weekly	21 (23.3%)	27 (31.4%)	34 (54.8%)	36 (61.0%)
Every other week	62 (68.9%)	48 (55.8%)	21 (33.9%)	19 (32.2%)
Weekly or every other week	7 (7.8%)	11 (12.8%)	7 (11.3%)	4 (6.8%)

*Study TRD3013 (ESCAPE-TRD)*

The efficacy of Spravato was evaluated in a long-term randomised, open-label, rater-blinded, active-controlled study (TRD3013) where Spravato was compared with quetiapine prolonged/extended-release (XR) in 676 adult patients (18-74 years) with TRD who continued to take their current oral AD (an SSRI or SNRI). Patients received treatment with flexibly dosed Spravato (28, 56, or 84 mg) or quetiapine XR, in line with the dosing recommendations in the SmPCs in use at the time of study initiation.

The primary efficacy endpoint was remission (MADRS total score of  $\leq 10$ ) at Week 8 and the key secondary endpoint was remaining relapse-free through Week 32 after remission at Week 8. Relapse was defined as a MADRS total score  $\geq 22$  for 2 consecutive weeks or hospitalisation for worsening depression or any other clinically relevant event indicative of relapse.

The baseline demographic and disease characteristics of patients were similar between the Spravato plus oral AD and quetiapine XR plus oral AD groups. The mean (SD) baseline MADRS total scores were 31.4 (6.06) for the Spravato plus oral AD group and 31.0 (5.83) for the quetiapine XR plus oral AD group.

Spravato plus oral AD demonstrated clinically meaningful and statistical superiority compared to quetiapine XR plus oral AD on both the primary (Table 8) and key secondary (Table 9) efficacy measure.

**Table 8: Primary efficacy results for TRD3013 Study<sup>a</sup>**

<b>Treatment group</b>	<b>Spravato + oral AD</b>	<b>Quetiapine XR + oral AD</b>
Number of patients in remission at Week 8	91/336 (27.1%)	60/340 (17.6%)
Adjusted risk difference in percentage (95% CI) <sup>b</sup>	9.5 (3.3, 15.8)	–
P-value <sup>c</sup>	P = 0.003	–

CI = confidence interval; AD = antidepressant; XR = extended release

<sup>a</sup> A patient who discontinued study intervention before Week 8 was considered as a negative outcome (i.e. non-remission). For patients for whom no MADRS result was available at the Week 8 visit but who did not discontinue study intervention or withdraw from study before Week 8, LOCF of MADRS was applied.

<sup>b</sup> Mantel-Haenszel estimate of the risk difference, stratified by age groups (18-64;  $\geq 65$ ) and total number of treatment failures is used. This estimated difference indicates an advantage for esketamine.

<sup>c</sup> Cochran–Mantel–Haenszel (CMH) test, adjusting for age groups (18-64;  $\geq 65$ ) and total number of treatment failures.

**Table 9: Key secondary efficacy results for TRD3013 Study<sup>a</sup>**

Treatment group	Spravato + oral AD	Quetiapine XR + oral AD
Number of patients both in remission at Week 8 and relapse-free at Week 32	73/336 (21.7%)	48/340 (14.1%)
Adjusted risk difference in percentage (95% CI) <sup>b</sup>	7.7 (2.0, 13.5)	–
P-value <sup>c</sup>	P = 0.008	–

CI = confidence interval; AD = antidepressant; XR = extended release

<sup>a</sup> A patient who discontinued study intervention was considered as a negative outcome. For patients for whom no MADRS result was available at the Week 8 visit but who did not discontinue study intervention or withdraw from study before Week 8, LOCF of MADRS was applied.

<sup>b</sup> Mantel-Haenszel estimate of the risk difference, stratified by age groups (18-64; ≥65) and total number of treatment failures is used. This estimated difference indicates an advantage for esketamine.

<sup>c</sup> Cochran–Mantel–Haenszel (CMH) test, adjusting for age groups (18-64; ≥65) and total number of treatment failures.

Treatment discontinuation rates over the 32-week treatment period due to adverse events, lack of efficacy, and overall were 4.2%, 8.3%, and 23.2% respectively for patients in the Spravato plus oral AD group and 11.5%, 15.0%, and 40.3% respectively for patients in the quetiapine XR plus oral AD group.

#### Treatment-resistant depression – Short-term study in Japanese patients

The efficacy of Spravato was also evaluated in a short-term (4-week) randomised, double-blind, active-controlled study (TRD2005) in 202 adult Japanese patients with TRD. Patients received 4 weeks of induction treatment with Spravato fixed-dose of 28 mg, 56 mg, 84 mg or placebo nasal spray in addition to continued current oral AD. The primary efficacy endpoint was change in MADRS total score from baseline to day 28. The baseline demographic and disease characteristics of patients were similar between the Spravato plus AD and placebo nasal spray plus AD groups.

In study TRD2005, no statistically significant difference in change in MADRS total scores from baseline at the end of the 4-week induction phase was observed for any of the Spravato plus oral AD dosages compared with oral AD plus placebo nasal spray (Table 10).

**Table 10: Primary efficacy results for change in MADRS total score for 4-week TRD2005 Study in Japanese patients (MMRM)**

Treatment group	Number of patients	Mean baseline score (SD)	LS mean change from baseline to end of week 4 (SE)	LS mean difference (90% CI) <sup>†,#</sup>
Spravato 28 mg + oral AD	41	38.4 (6.1)	-15.6 (1.8)	-1.0 -5.77; 3.70
Spravato 56 mg + oral AD	40	37.9 (5.4)	-14.0 (1.9)	0.6 -4.32; 5.47
Spravato 84 mg + oral AD	41	35.9 (5.3)	-15.5 (1.8)	-0.9 -5.66; 3.83
Oral AD + placebo nasal spray	80	37.7 (5.7)	-14.6 (1.3)	

SD = standard deviation; SE = standard error; LS Mean = least-squares mean; CI = confidence interval; AD = antidepressant.

<sup>†</sup> Difference (Spravato + oral AD minus Oral AD + placebo nasal spray) in least-squares mean change from baseline.

<sup>#</sup> Confidence interval is based on the Dunnett adjustment.

#### Treatment-resistant depression – Short-term study in Chinese patients

The efficacy of Spravato was also evaluated in a short-term (4-week) randomised, double-blind, active-controlled study (TRD3006) in 252 adult patients (224 Chinese patients, 28 non-Chinese patients) with TRD.

Patients received 4 weeks of induction treatment with flexibly dosed Spravato (56 mg or 84 mg) or placebo nasal spray, in addition to a newly initiated oral AD. The primary efficacy endpoint was change in MADRS total score from baseline to day 28. The baseline demographic and disease characteristics of patients were similar between the Spravato plus AD and placebo nasal spray plus AD groups.

In study TRD3006, no statistically significant difference in change in MADRS total scores from baseline at the end of the 4-week induction phase was observed for Spravato plus oral AD compared with oral AD plus placebo nasal spray (Table 11).

<b>Table 11: Primary efficacy results for change in MADRS total score for 4-week TRD3006 Study (MMRM)</b>				
<b>Treatment group</b>	<b>Number of patients<sup>#</sup></b>	<b>Mean baseline score (SD)</b>	<b>LS mean change from baseline to end of week 4 (SE)</b>	<b>LS mean difference (95% CI)<sup>†</sup></b>
<b>All patients</b>				
Spravato (56 mg or 84 mg) + oral AD	124	36.5 (5.21)	-11.7 (1.09)	-2.0 -4.64; 0.55
Oral AD + placebo nasal spray	126	35.9 (4.50)	-9.7 (1.09)	
<b>Chinese population</b>				
Spravato (56 mg or 84 mg) + oral AD	110	36.2 (5.02)	-8.8 (0.95)	-0.7 -3.35; 1.94
Oral AD + placebo nasal spray	112	35.9 (4.49)	-8.1 (0.95)	

SD = standard deviation; SE = standard error; LS Mean = least-squares mean; CI = confidence interval; AD = antidepressant.

<sup>#</sup> Two patients did not receive oral AD and were not included in the efficacy analysis.

<sup>†</sup> Difference (Spravato + oral AD minus Oral AD + placebo nasal spray) in least-squares mean change from baseline.

### ***Major Depressive Disorder with acute suicidal ideation or behavior***

Spravato was evaluated in two identical Phase 3 short-term (4-week) randomized, double-blind, multicenter, placebo-controlled studies, Aspire I (SUI3001; NCT03039192) and Aspire II (SUI3002; NCT03097133) in adult patients with moderate to severe MDD (MADRS total score >28) who had affirmative responses to MINI questions B3 (“Think [even momentarily] about harming or of hurting or of injuring yourself: with at least some intent or awareness that you might die as a result; or think about suicide [i.e., about killing yourself?]”) and B10 (“Intend to act on thoughts of killing yourself in the past 24 hours?”). In these studies, patients received treatment with Spravato 84 mg or placebo nasal spray twice-weekly for 4 weeks. All patients received comprehensive standard of care (SOC) treatment, including an initial inpatient hospitalization and a newly initiated or optimized oral antidepressant (AD) therapy (AD monotherapy or AD plus augmentation) as determined by the investigator. In the physician’s opinion, acute psychiatric hospitalisation was clinically warranted due to the subject’s immediate risk of suicide. After the first dose, a one-time dose reduction to Spravato 56 mg was allowed for patients unable to tolerate the 84 mg dose.

The baseline demographic and disease characteristics of patients in SUI3001 and SUI3002 were similar between the Spravato plus SOC or placebo nasal spray plus SOC groups. The median patient age was 40 years (range 18 to 64 years), 61% were female; 73% Caucasian and 6% Black; and 63% of patients had

at least one prior suicide attempt. Prior to entering the study, 92% of the patients were receiving antidepressant therapy. During the study, as part of standard of care treatment, 40% of patients received AD monotherapy, 54% of patients received AD plus augmentation regimen, and 6% received both AD monotherapy/AD plus augmentation regimen.

The primary efficacy measure was the reduction of symptoms of MDD as measured by the change from baseline MADRS total score at 24 hours after first dose (Day 2).

In SUI3001 and SUI3002, Spravato plus SOC demonstrated statistical superiority on the primary efficacy measure compared to placebo nasal spray plus SOC (see Table 12).

Study No.	Treatment Group <sup>‡</sup>	Number of Patients	Mean Baseline Score (SD)	LS Mean Change from Baseline to 24 hr Post First Dose (SE)	LS Mean Difference (95% CI) <sup>§</sup>
Study 1 (SUI3001)	Spravato 84 mg + SOC	112	41.2 (5.87)	-15.7 (1.05)	-3.7 (-6.41; -0.92) <sup>¶</sup> P=0.006
	Placebo nasal spray + SOC	112	41.0 (6.29)	-12.1 (1.03)	–
Study 2 (SUI3002)	Spravato 84 mg + SOC	114	39.5 (5.19)	-15.9 (1.02)	-3.9 (-6.65; -1.12) <sup>¶</sup> P=0.006
	Placebo nasal spray + SOC	113	39.9 (5.76)	-12.0 (1.06)	–
Pooled Studies 1 and 2	Spravato 84 mg + SOC	226	40.3 (5.60)	-15.8 (0.73)	-3.8 (-5.69; -1.82)
	Placebo nasal spray + SOC	225	40.4 (6.04)	-12.1 (0.73)	–

SD=standard deviation; SE=standard error; LS Mean=least-squares mean; CI=confidence interval; SOC=standard of care

\* ANCOVA analysis using Baseline Observation Carried Forward: In SUI3001, 2 subjects (1 subject in each group) did not have the Day 2 (24 hours post first dose) MADRS total score and in SUI3002, 6 subjects (4 subjects in Esketamine and 2 subjects in Placebo) did not have the Day 2 (24 hours post first dose) MADRS total score. For these subjects, it is assumed that the depression level returns to the baseline level (i.e. the depression level is the same as the start of treatment) and the MADRS total scores from baseline were carried forward for the analysis

<sup>‡</sup> Nasally administered esketamine or placebo

<sup>§</sup> Difference (Spravato + SOC minus placebo nasal spray + SOC) in least-squares mean change from baseline

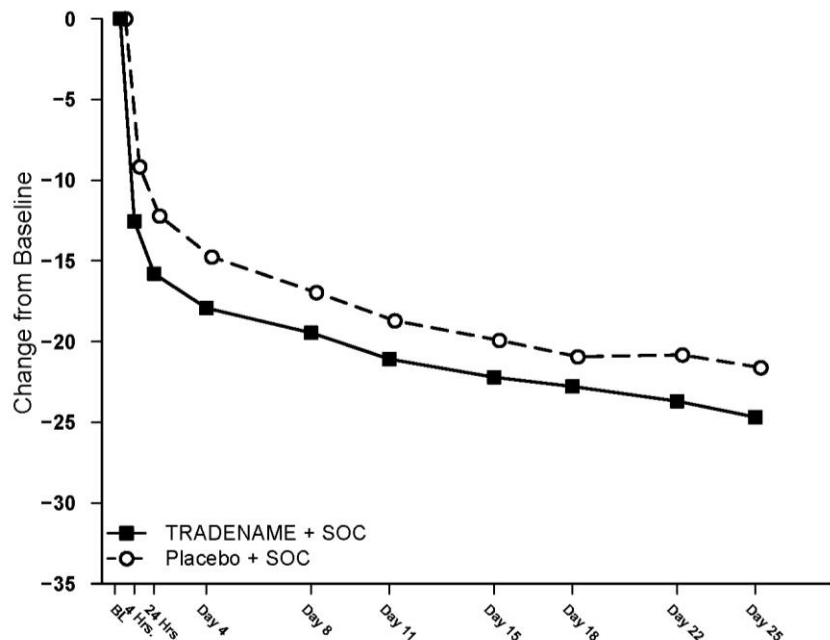
<sup>¶</sup> Treatment groups that were statistically significantly superior to placebo nasal spray + SOC.

The treatment differences (95% CI) in change from baseline in MADRS total score at Day 2 (24 hours post first dose) between Spravato + SOC and placebo + SOC were -4.81 (-7.26; -2.36) for the subpopulation that reported a prior suicide attempt (N=282) and -2.32 (-5.54; 0.91) for the subpopulation that did not report a prior suicide attempt (N=166).

### ***Time Course of Treatment Response***

In both SUI3001 and SUI3002, Spravato's treatment difference compared to placebo was observed starting at 4 hours. Between 4 hours and Day 25, both the Spravato and placebo groups continued to improve; the difference between the groups generally remained but did not appear to increase over time through Day 25. Figure 3 depicts time course of the primary efficacy measure of change in MADRS total score using pooled SUI3001 and SUI3002.

**Figure 3: Least Squares Mean Change from Baseline in MADRS Total Score Over Time in SUI3001 and SUI3002\* (Pooled, Full Analysis Set) – MMRM**



\* Note: In these studies, after the first dose, a one-time dose reduction to Spravato 56 mg was allowed for patients unable to tolerate the 84 mg dose. Approximately 16% of patients had reduction in Spravato dosage from 84 mg to 56 mg twice weekly.

### Remission rates

In the Phase 3 studies, the percentage of patients who achieved remission (MADRS total score  $\leq 12$  at any given time during the study) was greater in the Spravato + SOC group than in the placebo + SOC group at all timepoints during the double-blind treatment phase (Table 13).

	SUI3001		SUI3002		Pooled Studies (SUI3001 and SUI3002)	
	Placebo + SOC 112	Spravato + SOC 112	Placebo + SOC 113	Spravato + SOC 114	Placebo + SOC 225	Spravato + SOC 226
<b>Day 1, 4 hours post first dose</b> Patients with Remission of MDD	9 (8.0%)	12 (10.7%)	4 (3.5%)	12 (10.5%)	13 (5.8%)	24 (10.6%)
<b>Day 2, 24 hours post first dose</b> Patients with Remission of MDD	10 (8.9%)	21 (18.8%)	12 (10.6%)	25 (21.9%)	22 (9.8%)	46 (20.4%)
<b>Day 25 (predose)</b> Patients with Remission of MDD	38 (33.9%)	46 (41.1%)	31 (27.4%)	49 (43.0%)	69 (30.7%)	95 (42.0%)
<b>Day 25 (4 hours postdose)</b> Patients with Remission of MDD	42 (37.5%)	60 (53.6%)	42 (37.2%)	54 (47.4%)	84 (37.3%)	114 (50.4%)

SOC = standard of care

Note: Remission is based on a MADRS total score of  $\leq 12$ . Subjects who did not meet such criterion or discontinued prior to the time point for any reason are not considered to be in remission.

### Effects on Suicidality

Overall patients in both treatment groups experienced improvement in the severity of their suicidality as measured by the Clinical Global Impression – Severity of Suicidality - Revised (CGI-SS-r) scale at the 24-hour endpoint, though there was no statistically significant difference between treatment groups. The long-term efficacy of Spravato to prevent suicide has not been established.

## 5.2 Pharmacokinetic properties

### Absorption

The mean absolute bioavailability of 84 mg esketamine administered as a nasal spray is approximately 48%.

Esketamine is rapidly absorbed by the nasal mucosa following nasal administration and can be measured in plasma within 7 minutes following a 28 mg dose. The time to reach maximum plasma concentration ( $t_{max}$ ) is typically 20 to 40 minutes after the last nasal spray of a treatment session (see section 4.2).

Dose-dependent increases in the maximum plasma concentration ( $C_{max}$ ) and area under the plasma concentration-time curve ( $AUC_{\infty}$ ) of esketamine nasal spray were produced by doses of 28 mg, 56 mg and 84 mg.

The pharmacokinetic profile of esketamine is similar after a single dose and repeat dose administration with no accumulation in plasma when esketamine is administered twice a week.

### Distribution

The mean steady-state volume of distribution of esketamine administered by the intravenous route is 709 L.

The proportion of the total concentration of esketamine that is bound to proteins in human plasma is on average 43 to 45%. The degree to which esketamine is bound to plasma proteins is not dependent on hepatic or renal function.

Esketamine is not a substrate of transporters P-glycoprotein (P-gp; multidrug resistance protein 1), breast cancer resistance protein (BCRP), or organic anion transporter (OATP) 1B1, or OATP1B3. Esketamine does not inhibit these transporters or multi-drug and toxin extrusion 1 (MATE1) and MATE2-K, or organic cation transporter 2 (OCT2), OAT1, or OAT3.

### Biotransformation

Esketamine is extensively metabolised in the liver. The primary metabolic pathway of esketamine in human liver microsomes is N-demethylation to form noresketamine. The main cytochrome P450 (CYP) enzymes responsible for esketamine N-demethylation are CYP2B6 and CYP3A4. Other CYP enzymes, including CYP2C19 and CYP2C9, contribute to a much smaller extent. Noresketamine is subsequently metabolised via CYP-dependent pathways to other metabolites, some of which undergo glucuronidation.

### Elimination

The mean clearance of esketamine administered by the intravenous route was approximately 89 L/hour. After  $C_{max}$  was reached following nasal administration, the decline in esketamine concentrations in plasma was rapid for the first few hours and then more gradual. The mean terminal half-life following administration as a nasal spray generally ranged from 7 to 12 hours.

Following intravenous administration of radiolabelled esketamine, approximately 78% and 2% of administered radioactivity was recovered in urine and faeces, respectively. Following oral administration of radiolabelled esketamine, approximately 86% and 2% of administered radioactivity was recovered in urine and faeces, respectively. The recovered radioactivity consisted primarily of esketamine metabolites. For the intravenous and oral routes of administration, < 1% of the dose was excreted in the urine as unchanged drug.

### Linearity/non-linearity

Esketamine exposure increases with dose from 28 mg to 84 mg. The increase in  $C_{max}$  and AUC values was less than dose-proportional between 28 mg and 56 mg or 84 mg, but it was nearly dose proportional between 56 mg and 84 mg.

### Interactions

#### *Effect of other medicinal products on esketamine*

##### *Hepatic enzyme inhibitors*

Pre-treatment of healthy subjects with oral ticlopidine, an inhibitor of hepatic CYP2B6 activity, (250 mg twice daily for 9 days prior to and on the day of esketamine administration) had no effect on the  $C_{max}$  of esketamine administered as a nasal spray. The  $AUC_{\infty}$  of esketamine was increased by approximately 29%. The terminal half-life of esketamine was not affected by ticlopidine pre-treatment.

Pre-treatment with oral clarithromycin, an inhibitor of hepatic CYP3A4 activity, (500 mg twice daily for 3 days prior to and on the day of esketamine administration) increase the mean  $C_{max}$  and  $AUC_{\infty}$  of nasally administered esketamine by approximately 11% and 4%, respectively. The terminal half-life of esketamine was not affected by clarithromycin pre-treatment.

##### *Hepatic enzyme inducers*

Pre-treatment with oral rifampicin, a potent inducer of the activity of multiple hepatic CYP enzymes such as CYP3A4 and CYP2B6, (600 mg daily for 5 days prior to esketamine administration) decreased the mean  $C_{max}$  and  $AUC_{\infty}$  values of esketamine administered as a nasal spray by approximately 17% and 28%, respectively.

##### *Other nasal spray products*

Pre-treatment of subjects with a history of allergic rhinitis and pre-exposed to grass pollen with oxymetazoline administered as a nasal spray (2 sprays of 0.05% solution administered at 1 hour prior to nasal administration of esketamine) had minor effects on the pharmacokinetics of esketamine.

Pre-treatment of healthy subjects with nasal administration of mometasone furoate (200 mcg per day for 2 weeks with the last mometasone furoate dose administered at 1 hour prior to nasal administration of esketamine) had minor effects on the pharmacokinetics of esketamine.

#### *Effect of esketamine on other medicinal products*

Nasal administration of 84 mg esketamine twice a week for 2 weeks reduced the mean plasma  $AUC_{\infty}$  of oral midazolam (single 6 mg dose), a substrate of hepatic CYP3A4, by approximately 16%.

Nasal administration of 84 mg esketamine twice a week for 2 weeks did not affect the mean plasma AUC of oral bupropion (single 150 mg dose), a substrate of hepatic CYP2B6.

## Special populations

### Elderly (65 years of age and older)

The pharmacokinetics of esketamine administered as a nasal spray was compared between elderly but otherwise healthy subjects and younger healthy adults. The mean esketamine  $C_{\max}$  and  $AUC_{\infty}$  values produced by a 28 mg dose were 21% and 18% higher, respectively, in elderly subjects (age range 65 to 81 years) compared with younger adult subjects (age range 22 to 50 years). The mean esketamine  $C_{\max}$  and  $AUC_{\infty}$  values produced by an 84 mg dose were 67% and 38% higher in elderly subjects (age range 75 to 85 years) compared with younger adult subjects (age range 24 to 54 years). The terminal half-life of esketamine was similar in the elderly and younger adult subjects (see section 4.2).

### Renal impairment

Relative to the subjects with normal renal function (creatinine clearance [ $CL_{CR}$ ], 88 to 140 mL/min), the  $C_{\max}$  of esketamine was on average 20 to 26% higher in subjects with mild ( $CL_{CR}$ , 58 to 77 mL/min), moderate ( $CL_{CR}$ , 30 to 47 mL/min), or severe ( $CL_{CR}$ , 5 to 28 mL/min, not on dialysis) renal impairment following administration of a 28 mg dose of esketamine nasal spray. The  $AUC_{\infty}$  was 13 to 36% higher in the subjects with mild to severe renal impairment.

There is no clinical experience with esketamine administered as a nasal spray in patients on dialysis.

### Hepatic impairment

The  $C_{\max}$  and  $AUC_{\infty}$  of esketamine produced by a 28 mg doses were similar between subjects with Child-Pugh class A (mild) hepatic impairment and healthy subjects. The  $C_{\max}$  and  $AUC_{\infty}$  of esketamine were 8% higher and 103% higher, respectively, in subjects with Child-Pugh class B (moderate) hepatic impairment, relative to healthy subjects.

There is no clinical experience with esketamine administered as a nasal spray in patients with Child-Pugh class C (severe) hepatic impairment (see section 4.2 and 4.4).

### Race

The pharmacokinetics of esketamine nasal spray was compared between healthy Asian subjects and Caucasian subjects. Mean plasma esketamine  $C_{\max}$  and  $AUC_{\infty}$  values produced by a single, 56 mg dose of esketamine were approximately 14% and 33% higher, respectively, in Chinese subjects compared to Caucasians. On average, esketamine  $C_{\max}$  was 10% lower and  $AUC_{\infty}$  was 17% higher in Korean subjects, relative to Caucasian subjects. A population pharmacokinetic analysis was conducted that included Japanese patients with treatment-resistant depression, in addition to healthy Japanese subjects. Based on this analysis, for a given dose, the plasma esketamine  $C_{\max}$  and  $AUC_{24h}$  in Japanese subjects were approximately 20% higher relative to non-Asian subjects. The mean terminal half-life of esketamine in the plasma of Asian subjects ranged from 7.1 to 8.9 hours and was 6.8 hours in Caucasian subjects.

### Gender and body weight

No significant differences in the pharmacokinetics of esketamine nasal spray were observed for gender and total body weight (> 39 to 170 kg) based on population PK analysis.

### Allergic rhinitis

The pharmacokinetics of a single, 56 mg dose of esketamine administered as a nasal spray was similar in subjects with allergic rhinitis who were exposed to grass pollen compared to healthy subjects.

### 5.3 Preclinical safety data

Non-clinical data reveal no special hazard for humans based on conventional studies of repeated dose toxicity, genotoxicity, neurotoxicity, reproductive toxicity, and carcinogenic potential. Animal studies with ketamine showed evidence of developmental neurotoxicity. The potential for esketamine to have neurotoxic effects on developing foetuses cannot be excluded (see section 4.6).

#### Genotoxicity

Esketamine was not mutagenic with or without metabolic activation in the Ames test. Genotoxic effects with esketamine were seen in a screening *in vitro* micronucleus test in the presence of metabolic activation. However, intravenously-administered esketamine was devoid of genotoxic properties in an *in vivo* bone marrow micronucleus test in rats and an *in vivo* Comet assay in rat liver cells.

#### Reproductive toxicity

In an embryo foetal developmental toxicity study with nasally administered ketamine in rats, the offspring was not adversely affected in the presence of maternal toxicity at doses resulting in exposure up to 6-fold higher than human exposure, based on AUC values. In an embryo foetal developmental toxicity study with nasally administered ketamine in rabbits, skeletal malformations were observed and foetal body weight was reduced at maternally toxic doses. Exposure in rabbits was in the region of human exposure based on AUC values.

Published studies in animals (including primates) at doses resulting in light to moderate anaesthesia demonstrate that the use of anaesthetic agents during the period of rapid brain growth or synaptogenesis results in cell loss in the developing brain, that can be associated with prolonged cognitive deficiencies. The clinical significance of these non-clinical findings is not known.

## 6. PHARMACEUTICAL PARTICULARS

### 6.1 List of excipients

Citric acid monohydrate  
Disodium edetate  
Sodium hydroxide (for pH adjustment)  
Water for injections

### 6.2 Incompatibilities

Not applicable.

### 6.3 Shelf life

4 years

### 6.4 Special precautions for storage

This medicinal product does not require any special storage conditions.  
Do not store above 30°C.  
Keep out of the sight and reach of children.

## 6.5 Nature and contents of container

Type-I glass vial with a chlorobutyl rubber stopper. The filled and stoppered vial is assembled into a manually-activated nasal spray device. The device dispenses two sprays.

Within each pack, each device is individually packaged in a sealed blister.

Pack sizes of 1 nasal spray device.

## 6.6 Special precautions for disposal

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

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### Additional Information

- Prescribed by a licensed psychiatrist who has obtained the certification in accordance with applicable regulations.
- Medications cannot be prescribed or discussed through telemedicine.
- The use of medication must be supervised directly by medical personnel or healthcare staff (nurses or pharmacists) at hospitals or primary clinics that provide psychiatric specialist services, with both professionals having demonstrated their competency in medication management through certification from the Indonesian Psychiatric Medical Society
- Patients are not allowed to take the medication home.

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### HOW SUPPLIED

Spravato nasal spray

Box, 1 blister @ 1 pre-filled nasal spray device

Reg. No.: DKI2106500856A1

**FIRST AUTHORISATION DATE:** 23 April 2021

### HARUS DENGAN RESEP DOKTER

Manufacturing and primary packaging by Renaissance Lakewood LLC, USA

Secondary packaging and released by Janssen Cilag Manufacturing LLC, USA

Registered by PT Integrated Healthcare Indonesia, Jakarta – Indonesia

For adverse event and product quality complaint please contact [drugsafety@jacid.jnj.com](mailto:drugsafety@jacid.jnj.com) or (021) 2935-3935

Based on EU SmPC 2024I217 + CCDS v12 17Oct2024\_BPOM HAQ Letter 1Oct25

**INFORMASI PRODUK UNTUK PASIEN**  
**SPRAVATO® 28 mg larutan semprotan hidung**  
**esketamine**

Obat ini tunduk pada pemantauan tambahan. Hal ini akan memungkinkan identifikasi cepat dari informasi keamanan baru. Anda dapat membantu dengan melaporkan efek samping yang mungkin Anda dapatkan. Lihat pada akhir bagian 4 untuk mengetahui cara melaporkan efek samping.

**Baca semua informasi produk ini secara seksama sebelum Anda mulai menggunakan obat ini karena mengandung informasi penting untuk Anda.**

- Simpan informasi produk ini. Anda mungkin perlu untuk membacanya lagi.
- Jika Anda memiliki pertanyaan lebih lanjut, tanyakan kepada dokter Anda.
- Jika Anda mengalami efek samping, bicarakan dengan dokter Anda. Termasuk efek samping yang tidak disebutkan dalam informasi produk ini. Lihat bagian 4.

**Apa yang ada dalam informasi produk ini**

1. Apakah SPRAVATO dan digunakan untuk apa
2. Apa saja yang harus Anda ketahui sebelum menggunakan SPRAVATO
3. Bagaimana cara menggunakan SPRAVATO
4. Efek samping yang mungkin terjadi selama menggunakan SPRAVATO
5. Bagaimana cara menyimpan SPRAVATO
6. Isi kemasan dan Informasi lainnya

**1. Apakah SPRAVATO dan digunakan untuk apa**

**Apakah itu SPRAVATO**

SPRAVATO mengandung zat aktif esketamine. Obat ini termasuk ke dalam kelompok obat yang disebut anti-depresi dan Anda telah diresepkan obat ini untuk pengobatan depresi Anda.

**Apakah kegunaan SPRAVATO**

SPRAVATO dalam bentuk semprotan hidung digunakan bersamaan dengan *Selective Serotonin Reuptake Inhibitor* (SSRI) atau *Serotonin-Norepinephrine Reuptake Inhibitor* (SNRI) diindikasikan untuk pasien dewasa dengan gangguan depresi major yang resisten terhadap pengobatan, yang belum mendapatkan manfaat dari setidaknya dua pengobatan antidepresan berbeda pada episode depresi sedang hingga berat yang dialami saat ini.

Spravato, bersama terapi antidepresan oral, digunakan untuk pengurangan cepat gejala depresi pada pasien dewasa dengan Gangguan Depresi Mayor yang memiliki ide atau perilaku bunuh diri akut. Efektivitas Spravato dalam mencegah bunuh diri atau dalam mengurangi ide atau perilaku bunuh diri belum dibuktikan. Spravato tidak untuk digunakan sebagai pengganti rawat inap jika tenaga kesehatan Anda menentukan bahwa rawat inap diperlukan, bahkan jika perbaikan dialami setelah dosis pertama Spravato.

**2. Apa saja yang perlu Anda ketahui sebelum menggunakan SPRAVATO**

**Jangan gunakan SPRAVATO jika:**

- Anda alergi terhadap esketamin, obat serupa yang disebut ketamin yang digunakan untuk anestesi, atau bahan lain dari obat ini (tercantum dalam bagian 6).
- Anda pernah memiliki kondisi tertentu seperti:
  - "aneurisma" (titik lemah dimana dinding pembuluh darah melebar atau menonjol)
  - pendarahan di otakHal ini karena SPRAVATO dapat menyebabkan peningkatan sementara dalam tekanan darah dan pada kedua kondisi ini, dapat menyebabkan kondisi medis yang serius.
- Jika Anda baru saja mengalami serangan jantung (dalam 6 minggu).  
Ini karena Spravato dapat menyebabkan peningkatan tekanan darah sementara yang dapat menyebabkan komplikasi serius pada kondisi ini.

Jangan gunakan SPRAVATO jika hal di atas terjadi pada Anda. Jika Anda tidak yakin, bicarakan dengan dokter Anda sebelum menggunakan SPRAVATO - dokter Anda akan memutuskan apakah Anda dapat menggunakan obat ini atau tidak.

### **Peringatan dan pencegahan**

Bicaralah dengan dokter Anda sebelum menggunakan SPRAVATO jika:

- Anda memiliki masalah jantung yang tidak terkontrol dengan baik seperti: aliran darah yang buruk di pembuluh darah jantung sering dengan nyeri dada (seperti "angina"), tekanan darah tinggi, serangan jantung yang terjadi baru-baru ini, penyakit katup jantung atau gagal jantung
- Anda pernah memiliki masalah dengan suplai darah ke otak Anda (seperti "stroke")
- Anda pernah memiliki masalah dengan penyalahgunaan obat - obat yang diresepkan atau ilegal - atau masalah dengan alkohol
- Anda pernah memiliki kondisi yang disebut "psikosis" - di mana Anda percaya pada hal-hal yang tidak benar ("delusi") atau melihat, merasakan, atau mendengar hal-hal yang tidak ada ("halusinasi")
- Anda pernah memiliki kondisi yang disebut "gangguan bipolar" atau gejala mania - di mana Anda sangat aktif atau terlalu bersemangat
- Anda pernah memiliki tiroid yang terlalu aktif yang tidak dirawat dengan baik ("hipertiroidisme")
- Anda pernah memiliki masalah paru-paru yang menyebabkan kesulitan bernapas ("insufisiensi paru")
- Anda pernah mengalami detak jantung yang lambat atau cepat yang menyebabkan sesak napas, jantung berdebar, atau dada terasa tidak nyaman, merasa pusing atau pingsan
- Anda pernah mengalami cedera kepala serius atau masalah serius yang memengaruhi otak, terutama di mana ada peningkatan tekanan di otak
- Anda memiliki masalah hati yang berat/parah.

Jika salah satu di atas terjadi pada Anda (atau Anda tidak yakin), bicarakan dengan dokter Anda sebelum menggunakan SPRAVATO. Dokter Anda akan memutuskan apakah Anda perlu menggunakan obat ini.

### **Depresi yang memburuk:**

Beri tahu dokter Anda atau langsung pergi ke rumah sakit terdekat jika Anda memiliki pikiran untuk melukai atau membunuh diri sendiri kapan saja.

Anda mungkin merasa terbantu untuk berbicara dengan seorang kerabat atau teman dekat jika Anda mengalami depresi dan bertanya kepada mereka apakah menurut mereka depresi Anda semakin buruk atau jika mereka khawatir dengan perilaku Anda. Anda mungkin perlu meminta mereka untuk membaca informasi produk ini.

### **Tekanan darah:**

SPRAVATO dapat meningkatkan tekanan darah Anda untuk waktu yang singkat (sekitar 1 hingga 2 jam) - sehingga tekanan darah Anda akan diukur pada berbagai waktu. Tekanan darah Anda akan diukur sebelum Anda mulai menggunakan SPRAVATO dan setelah menggunakannya.

Jika tekanan darah Anda tinggi sebelum menggunakan obat ini, dokter Anda akan memutuskan apakah akan memulai obat atau menunggu sampai tekanan darah Anda lebih rendah. Jika tekanan darah Anda meningkat secara signifikan setelah menggunakan obat ini dan tetap meningkat selama lebih dari beberapa jam setelah pemberian dosis, dokter Anda dapat mengirim Anda ke dokter lain untuk dievaluasi.

Obat ini dapat menyebabkan peningkatan sementara tekanan darah Anda setelah dosis diberikan. Tekanan darah Anda akan diperiksa sebelum dan sesudah minum obat ini. Beri tahu staf medis segera jika Anda mengalami nyeri dada, sesak napas, sakit kepala parah yang tiba-tiba, penglihatan berubah, atau kejang setelah minum obat ini.

### **Beri tahu dokter Anda jika Anda mendapatkan salah satu dari hal-hal di bawah ini saat Anda menggunakan SPRAVATO:**

- kesulitan dengan perhatian, penilaian dan pemikiran Anda (lihat juga bagian "Mengemudi dan menggunakan mesin" dan "Efek Samping"). Selama dan setelah setiap penggunaan obat ini, Anda akan diperiksa oleh dokter Anda yang akan memutuskan berapa lama untuk memantau Anda. Setelah dirawat dengan obat ini, jangan mengemudi atau menggunakan mesin lain yang mengharuskan Anda untuk benar-benar waspada sampai hari berikutnya setelah tidur nyenyak.

- mengantuk (sedasi), pingsan, pusing, sensasi berputar, kecemasan, atau perasaan terputus dari diri Anda, pikiran, perasaan, ruang dan waktu Anda (disosiasi), kesulitan bernapas (depresi pernapasan). Beri tahu staf medis segera jika Anda merasa tidak bisa tetap terjaga atau jika Anda merasa akan pingsan.
- rasa sakit saat buang air kecil atau melihat darah di urin Anda - ini bisa menjadi tanda masalah kandung kemih. Ini terjadi ketika menggunakan dosis tinggi dari obat yang serupa (yang disebut ketamin), dalam jangka waktu yang lama.

Beri tahu dokter Anda jika Anda merasakan hal di atas saat Anda menggunakan SPRAVATO.

### **Usia lanjut (>65 tahun)**

Jika Anda berusia lanjut (>65 tahun), Anda akan dipantau dengan hati-hati karena Anda mungkin berisiko lebih tinggi untuk terjatuh pada saat bergerak / berjalan setelah pengobatan.

### **Anak-anak dan remaja**

Penggunaan SPRAVATO belum diteliti pada anak-anak dan remaja di bawah 18 tahun dengan depresi yang resisten terhadap pengobatan. Karenanya, SPRAVATO tidak boleh digunakan untuk kelompok usia ini.

### **Obat-obatan lainnya dan SPRAVATO**

Beritahu dokter Anda tentang semua obat yang Anda gunakan atau yang akan Anda gunakan.

Menggunakan SPRAVATO dengan obat-obatan tertentu dapat menyebabkan efek samping. Terutama beri tahu dokter Anda jika Anda minum:

- Obat-obatan yang digunakan untuk mengobati gangguan saraf atau nyeri berat (misalnya benzodiazepin, opioid), atau obat-obatan atau minuman yang mengandung alkohol
- Stimulan seperti obat-obatan yang digunakan untuk kondisi seperti narkolepsi atau obat-obatan untuk ADHD (misalnya, amfetamin, methylphenidate, modafinil, armodafinil)
- Obat-obatan yang dapat meningkatkan tekanan darah Anda, seperti hormon tiroid, obat-obatan asma seperti turunan xantin, obat-obatan untuk perdarahan pada saat melahirkan (ergometrine) dan obat jantung seperti vasopresin.
- Obat-obatan untuk depresi atau penyakit *Parkinson's* yang dikenal dengan monoamine oksidase inhibitor (MAOI) (misalnya, tranylcypromine, selegiline, phenelzine).

### **Kehamilan dan menyusui**

Jika Anda hamil atau sedang menyusui, menduga Anda mungkin sedang hamil atau berencana untuk memiliki bayi, beri tahu dokter Anda sebelum menggunakan obat ini.

### **Kontrasepsi**

Jika Anda dalam kondisi subur, Anda harus menggunakan kontrasepsi selama pengobatan. Bicarakan dengan dokter Anda tentang metode kontrasepsi yang tepat untuk digunakan.

### **Kehamilan**

Jangan gunakan SPRAVATO jika Anda sedang hamil.

Jika Anda hamil ketika sedang diobati dengan SPRAVATO, segera bicarakan dengan dokter Anda yang akan memutuskan apakah Anda perlu menghentikan pengobatan dan mencari tahu pilihan terapi lain untuk pengobatan Anda.

### **Menyusui**

Jangan gunakan SPRAVATO jika Anda menyusui. Bicaralah dengan dokter Anda sebelum menggunakan SPRAVATO jika Anda menyusui. Dokter Anda akan memutuskan apakah Anda berhenti menyusui atau berhenti menggunakan obat ini. Dokter Anda akan mempertimbangkan manfaat menyusui untuk anak Anda, dan manfaat pengobatan untuk Anda.

### **Mengemudi dan menggunakan mesin**

SPRAVATO dapat membuat Anda merasa mengantuk, pusing, dan memiliki efek samping lain yang untuk sementara dapat memengaruhi kemampuan Anda mengendarai kendaraan bermotor atau menggunakan mesin

lain dan melakukan apa pun di mana Anda harus benar-benar waspada. Setelah diobati dengan obat ini, jangan melakukan kegiatan ini sampai hari berikutnya setelah tidur lelap terlebih dahulu.

### **3. Bagaimana SPRAVATO digunakan**

Selalu gunakan obat ini tepat seperti yang diinstruksikan oleh dokter Anda. Konsultasikan dengan dokter Anda jika Anda ragu.

Anda akan menggunakan semprotan hidung SPRAVATO sendiri di bawah pengawasan dokter Anda atau tenaga kesehatan profesional lain di rumah sakit.

Dokter Anda atau tenaga profesional Kesehatan lainnya akan menunjukkan bagaimana cara menggunakan alat semprot hidung (lihat juga Petunjuk Penggunaan).

#### **Berapa yang harus digunakan**

Dokter Anda akan memutuskan berapa banyak alat semprot hidung yang Anda perlukan dan seberapa sering Anda perlu datang ke rumah sakit untuk mendapatkan pengobatan.

- Satu alat semprot digunakan untuk dua semprotan (satu semprotan per lubang hidung)
  - SPRAVATO digunakan dua kali seminggu untuk 4 minggu pertama
  - Untuk beberapa pasien, setelah 4 minggu pertama, SPRAVATO biasanya digunakan seminggu sekali
  - Untuk beberapa pasien, setelah itu, SPRAVATO biasanya digunakan sekali seminggu atau setiap 2 minggu.
- Selama dan setelah setiap penggunaan obat ini, dokter Anda akan memeriksa dan memutuskan berapa lama Anda akan dipantau.

#### **Makanan dan minuman**

Beberapa pasien yang menggunakan SPRAVATO mungkin mengalami mual atau muntah. Anda harus menghindari makan 2 jam sebelum dan minum cairan 30 menit sebelum menggunakan obat ini.

#### **Jika Anda diberi SPRAVATO lebih dari yang dibutuhkan**

Obat ini akan diberikan kepada Anda di bawah pengawasan dokter Anda di rumah sakit. Karena itu, kecil kemungkinan Anda akan diberi dosis berlebih.

Jika Anda menerima terlalu banyak dosis SPRAVATO, Anda lebih mungkin mengalami efek samping (lihat "Efek samping").

#### **Jika Anda berhenti menggunakan SPRAVATO**

Sangat penting untuk Anda untuk tepat waktu dalam menggunakan obat, sehingga obat ini efektif untuk Anda.

Jika Anda memiliki pertanyaan lebih lanjut tentang penggunaan obat ini, tanyakan kepada dokter Anda.

### **4. Efek samping**

Seperti semua obat lainnya, obat ini dapat menyebabkan efek samping, meskipun tidak semua orang mengalaminya.

Beri tahu dokter Anda jika Anda menemukan salah satu dari efek samping berikut.

Efek samping yang sangat umum: dapat mempengaruhi lebih dari 1 dalam 10 orang atau lebih:

- perasaan terputus dari diri sendiri, pikiran, perasaan, dan hal-hal di sekitar Anda
- merasa pusing
- sakit kepala
- merasa ngantuk
- perubahan indera perasa
- perasaan atau sensitivitas menurun, termasuk di sekitar area mulut
- sensasi berputar ("vertigo")
- muntah

- mual
- peningkatan tekanan darah

Efek samping yang umum: dapat memengaruhi hingga 1 dalam 10 orang:

- merasa cemas
- merasa sangat bahagia ("euforia")
- merasa bingung
- merasa terlepas dari kenyataan
- merasa kesal
- melihat, merasakan, mendengar atau mencium hal-hal yang tidak ada (halusinasi)
- merasa gelisah
- mata, telinga, atau indera peraba merasa tertipu dengan cara tertentu (sesuatu tidak seperti kelihatannya)
- merasa panik
- perubahan persepsi waktu
- perasaan tidak biasa di mulut (seperti kesemutan atau perasaan merangkak)
- tremor otot
- masalah dengan pemikiran
- merasa sangat mengantuk dan kurang energi
- kesulitan berbicara
- kesulitan berkonsentrasi
- penglihatan kabur
- telinga berdenging terus-menerus (tinnitus)
- peningkatan kepekaan terhadap derau atau suara
- detak jantung yang cepat
- tekanan darah tinggi
- ketidaknyamanan hidung
- iritasi tenggorokan
- sakit tenggorokan
- hidung kering termasuk kerak kering di hidung
- hidung gatal
- penurunan perasaan atau kepekaan di mulut
- mulut kering
- keringat berlebih
- sering buang air kecil
- sakit saat buang air kecil
- kebutuhan mendesak untuk buang air kecil
- merasa tidak normal
- merasa mabuk
- merasa lemah
- menangis
- perasaan perubahan suhu tubuh

Efek samping yang tidak umum: dapat mempengaruhi hingga 1 dalam 100 orang:

- pikiran, ucapan, dan gerakan fisik melambat
- tekanan emosional
- merasa tidak nyaman atau tegang
- gerakan mata cepat yang tidak dapat Anda kendalikan
- menjadi hiperaktif
- peningkatan air liur
- keringat dingin
- masalah berjalan
- tekanan darah rendah
- denyut jantung yang lambat

Efek samping yang jarang: dapat mempengaruhi hingga 1 dalam 1000 orang:

- kesulitan bernapas (depresi pernapasan)
- kejang

### **Pelaporan efek samping**

Jika Anda merasakan salah satu efek samping di atas beritahu dokter atau apoteker Anda. Termasuk kemungkinan efek samping yang tidak tercantum dalam brosur ini.

Anda juga dapat melaporkan efek samping langsung melalui informasi kontak pelaporan efek samping di bagian paling bawah brosur ini. Dengan melaporkan efek samping, Anda dapat membantu memberikan informasi lebih lanjut tentang keamanan obat ini.

### **5. Bagaimana cara menyimpan SPRAVATO**

Jauhkan SPRAVATO dari pandangan dan jangkauan anak-anak.

Jangan gunakan obat ini setelah tanggal kadaluwarsa yang tertera pada dus dan label. Tanggal kadaluwarsa merujuk pada tanggal terakhir pada bulan tersebut.

Obat ini tidak membutuhkan kondisi penyimpanan khusus. Simpan di bawah suhu 30°C.

Jangan membuang obat apapun melalui saluran pembuangan air atau pembuangan rumah tangga. Tanyakan ke Apoteker Anda bagaimana cara yang tepat untuk membuang obat yang tidak digunakan lagi. Langkah-langkah ini akan membantu melindungi lingkungan.

### **6. Isi kemasan dan informasi lainnya**

#### **Apa saja kandungan SPRAVATO?**

Zat aktifnya adalah esketamine (dalam bentuk esketamine hidroklorida).

Zat tambahan lainnya adalah:

- Asam sitrat monohidrat
- Disodium edetate
- Natrium hidroksia
- Cairan untuk injeksi

#### **Seperti apa SPRAVATO dan isi kemasan**

SPRAVATO berupa larutan semprotan hidung. Obat ini mengandung esketamin hidroklorida dalam larutan bening dan tidak berwarna, tersedia dalam pre-filled nasal spray.

Setiap alat semprot hidung dikemas secara individual dalam kemasan blister yang disegel.

Dus, 1 blister @ 1 pre-filled nasal spray

No. Reg.: DK12106500856A1

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#### **Informasi Tambahan**

- Diresepkan oleh dokter yang memiliki spesialisasi kedokteran jiwa dan telah mendapatkan sertifikat sesuai dengan ketentuan peraturan perundang-undangan.
  - Obat tidak dapat dikonsultasikan dan diresepkan melalui telemedisin.
  - Penggunaan obat dilakukan oleh pasien secara mandiri di Rumah Sakit dan Klinik Utama yang memiliki pelayanan medik spesialisik kesehatan jiwa dengan pengawasan langsung tenaga medis atau tenaga kesehatan (tenaga keperawatan dan tenaga kefarmasian) yang keduanya telah memiliki kompetensi dalam penggunaan obat yang dibuktikan dengan sertifikat kompetensi dari perhimpunan spesialis kedokteran jiwa di Indonesia.
  - Obat dilarang dibawa pulang oleh pasien.
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**HARUS DENGAN RESEP DOKTER**

**Diproduksi oleh:**

Renaissance Lakewood LLC, USA

**Dikemas dan di release oleh:**

Janssen Ortho LLC, USA

**Didaftarkan oleh:**

PT Integrated Healthcare Indonesia, Jakarta – Indonesia

Untuk pelaporan efek samping dan keluhan kualitas produk, dapat menghubungi [drugsafety@jacid.jnj.com](mailto:drugsafety@jacid.jnj.com) atau telp. (021) 2935-3935

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