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Holly A. Swartz, M.D., Editor-in-Chief

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# INGREZZA® (valbenazine) capsules

for oral use

**Brief Summary:** for full Prescribing Information and Patient Information, refer to package insert.

## INDICATION AND USAGE

INGREZZA® (valbenazine) capsules is indicated for the treatment of adults with tardive dyskinesia.

## CONTRAINDICATIONS

INGREZZA is contraindicated in patients with a history of hypersensitivity to valbenazine or any components of INGREZZA. Rash, urticaria, and reactions consistent with angioedema (e.g., swelling of the face, lips, and mouth) have been reported.

## WARNINGS AND PRECAUTIONS

### Somnolence

INGREZZA can cause somnolence. Patients should not perform activities requiring mental alertness such as operating a motor vehicle or operating hazardous machinery until they know how they will be affected by INGREZZA.

### QT Prolongation

INGREZZA may prolong the QT interval, although the degree of QT prolongation is not clinically significant at concentrations expected with recommended dosing. In patients taking a strong CYP2D6 or CYP3A4 inhibitor, or who are CYP2D6 poor metabolizers, INGREZZA concentrations may be higher and QT prolongation clinically significant. For patients who are CYP2D6 poor metabolizers or are taking a strong CYP2D6 inhibitor, dose reduction may be necessary. For patients taking a strong CYP3A4 inhibitor, reduce the dose of INGREZZA to 40 mg once daily. INGREZZA should be avoided in patients with congenital long QT syndrome or with arrhythmias associated with a prolonged QT interval. For patients at increased risk of a prolonged QT interval, assess the QT interval before increasing the dosage.

### Parkinsonism

INGREZZA may cause parkinsonism in patients with tardive dyskinesia. Parkinsonism has also been observed with other VMAT2 inhibitors. In the 3 placebo-controlled clinical studies in patients with tardive dyskinesia, the incidence of parkinson-like adverse events was 3% of patients treated with INGREZZA and <1% of placebo-treated patients. Postmarketing safety reports have described parkinson-like symptoms, some of which were severe and required hospitalization. In most cases, severe parkinsonism occurred within the first 2 weeks after starting or increasing the dose of INGREZZA. Associated symptoms have included falls, gait disturbances, tremor, drooling, and hypokinesia. In cases in which follow-up clinical information was available, parkinson-like symptoms were reported to resolve following discontinuation of INGREZZA therapy. Reduce the dose or discontinue INGREZZA treatment in patients who develop clinically significant parkinson-like signs or symptoms.

## ADVERSE REACTIONS

The following adverse reactions are discussed in more detail in other sections of the labeling:

- Hypersensitivity
- Somnolence
- QT Prolongation
- Parkinsonism

### Clinical Trials Experience

Because clinical trials are conducted under widely varying conditions, adverse reaction rates observed in the clinical trials of a drug cannot be directly compared to rates in the clinical trials of another drug and may not reflect the rates observed in practice.

#### Variable and Fixed Dose Placebo-Controlled Trial Experience

The safety of INGREZZA was evaluated in 3 placebo-controlled studies, each 6 weeks in duration (fixed dose, dose escalation, dose reduction), including 445 patients. Patients were 26 to 84 years of age with moderate to severe tardive dyskinesia and had concurrent diagnoses of mood disorder (27%) or schizophrenia/schizoaffective disorder (72%). The mean age was 56 years. Patients were 57% Caucasian, 39% African-American, and 4% other. With respect to ethnicity, 28% were Hispanic or Latino. All subjects continued previous stable regimens of antipsychotics; 85% and 27% of subjects, respectively, were taking atypical and typical antipsychotic medications at study entry.

#### Adverse Reactions Leading to Discontinuation of Treatment

A total of 3% of INGREZZA treated patients and 2% of placebo-treated patients discontinued because of adverse reactions.

#### Common Adverse Reactions

Adverse reactions that occurred in the 3 placebo-controlled studies at an incidence of  $\geq 2\%$  and greater than placebo are presented in Table 1.

**Table 1: Adverse Reactions in 3 Placebo-Controlled Studies of 6-week Treatment Duration Reported at  $\geq 2\%$  and  $>$ Placebo**

Adverse Reaction <sup>1</sup>	INGREZZA (n=262) (%)	Placebo (n=183) (%)
<b>General Disorders</b>		
Somnolence (somnolence, fatigue, sedation)	10.9%	4.2%
<b>Nervous System Disorders</b>		
Anticholinergic effects (dry mouth, constipation, disturbance in attention, vision blurred, urinary retention)	5.4%	4.9%
Balance disorders/fall (fall, gait disturbance, dizziness, balance disorder)	4.1%	2.2%
Headache	3.4%	2.7%
Akathisia (akathisia, restlessness)	2.7%	0.5%
<b>Gastrointestinal Disorders</b>		
Vomiting	2.6%	0.6%
Nausea	2.3%	2.1%
<b>Musculoskeletal Disorders</b>		
Arthralgia	2.3%	0.5%

<sup>1</sup> Within each adverse reaction category, the observed adverse reactions are listed in order of decreasing frequency.

### Other Adverse Reactions Observed During the Premarketing Evaluation of INGREZZA

Other adverse reactions of  $\geq 1\%$  incidence and greater than placebo are shown below. The following list does not include adverse reactions: 1) already listed in previous tables or elsewhere in the labeling, 2) for which a drug cause was remote, 3) which were so general as to be uninformative, 4) which were not considered to have clinically significant implications, or 5) which occurred at a rate equal to or less than placebo.

**Endocrine Disorders:** blood glucose increased

**General Disorders:** weight increased

**Infectious Disorders:** respiratory infections

**Neurologic Disorders:** drooling, dyskinesia, extrapyramidal symptoms (non-akathisia)

**Psychiatric Disorders:** anxiety, insomnia

During controlled trials, there was a dose-related increase in prolactin. Additionally, there was a dose-related increase in alkaline phosphatase and bilirubin, suggesting a potential risk for cholestasis.

### Postmarketing Experience

The following adverse reactions have been identified during post-approval use of INGREZZA that are not included in other sections of labeling. Because these reactions are reported voluntarily from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to drug exposure.

**Immune System Disorders:** hypersensitivity reactions (including allergic dermatitis, angioedema, pruritis, and urticaria)

**Skin and Subcutaneous Tissue Disorders:** rash

## DRUG INTERACTIONS

### Drugs Having Clinically Important Interactions with INGREZZA

**Table 2: Clinically Significant Drug Interactions with INGREZZA**

<b>Monoamine Oxidase Inhibitors (MAOIs)</b>	
<b>Clinical Implication:</b>	Concomitant use of INGREZZA with MAOIs may increase the concentration of monoamine neurotransmitters in synapses, potentially leading to increased risk of adverse reactions such as serotonin syndrome, or attenuated treatment effect of INGREZZA.
<b>Prevention or Management:</b>	Avoid concomitant use of INGREZZA with MAOIs.
<b>Examples:</b>	isocarboxazid, phenelzine, selegiline
<b>Strong CYP3A4 Inhibitors</b>	
<b>Clinical Implication:</b>	Concomitant use of INGREZZA with strong CYP3A4 inhibitors increased the exposure (C <sub>max</sub> and AUC) to valbenazine and its active metabolite compared with the use of INGREZZA alone. Increased exposure of valbenazine and its active metabolite may increase the risk of exposure-related adverse reactions.
<b>Prevention or Management:</b>	Reduce INGREZZA dose when INGREZZA is coadministered with a strong CYP3A4 inhibitor.
<b>Examples:</b>	itraconazole, ketoconazole, clarithromycin
<b>Strong CYP2D6 Inhibitors</b>	
<b>Clinical Implication:</b>	Concomitant use of INGREZZA with strong CYP2D6 inhibitors increased the exposure (C <sub>max</sub> and AUC) to valbenazine's active metabolite compared with the use of INGREZZA alone. Increased exposure of active metabolite may increase the risk of exposure-related adverse reactions.
<b>Prevention or Management:</b>	Reduce INGREZZA dose when INGREZZA is coadministered with a strong CYP2D6 inhibitor.
<b>Examples:</b>	paroxetine, fluoxetine, quinidine
<b>Strong CYP3A4 Inducers</b>	
<b>Clinical Implication:</b>	Concomitant use of INGREZZA with a strong CYP3A4 inducer decreased the exposure of valbenazine and its active metabolite compared to the use of INGREZZA alone. Reduced exposure of valbenazine and its active metabolite may reduce efficacy.
<b>Prevention or Management:</b>	Concomitant use of strong CYP3A4 inducers with INGREZZA is not recommended.
<b>Examples:</b>	rifampin, carbamazepine, phenytoin, St. John's wort <sup>†</sup>
<b>Digoxin</b>	
<b>Clinical Implication:</b>	Concomitant use of INGREZZA with digoxin increased digoxin levels because of inhibition of intestinal P-glycoprotein (P-gp).
<b>Prevention or Management:</b>	Digoxin concentrations should be monitored when coadministering INGREZZA with digoxin. Increased digoxin exposure may increase the risk of exposure-related adverse reactions. Dosage adjustment of digoxin may be necessary.

<sup>†</sup> The induction potency of St. John's wort may vary widely based on preparation.

### Drugs Having No Clinically Important Interactions with INGREZZA

Dosage adjustment for INGREZZA is not necessary when used in combination with substrates of CYP1A2, CYP2B6, CYP2C8, CYP2C9, CYP2C19, CYP2E1, or CYP3A4/5 based on *in vitro* study results.

## OVERDOSAGE

### Human Experience

The pre-marketing clinical trials involving INGREZZA in approximately 850 subjects do not provide information regarding symptoms with overdose.

### Management of Overdosage

No specific antidotes for INGREZZA are known. In managing overdose, provide supportive care, including close medical supervision and monitoring, and consider the possibility of multiple drug involvement. If an overdose occurs, consult a Certified Poison Control Center (1-800-222-1222 or www.poison.org).

For further information on INGREZZA, call 84-INGREZZA (844-647-3992).



Distributed by:  
Neurocrine Biosciences, Inc.  
San Diego, CA 92130

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IN ADULT PATIENTS WITH TARDIVE DYSKINESIA (TD)

## Choose INGREZZA for results you can see<sup>1</sup>

INGREZZA<sup>®</sup> (valbenazine) capsules reduced TD severity at 6 weeks,  
with results you can start to see as early as 2 weeks<sup>1-3</sup>



Not an actual patient

See how INGREZZA reduced TD severity in patients at [INGREZZAHCP.com/results](https://www.ingrezzahcp.com/results)

### Important Information

#### INDICATION & USAGE

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#### IMPORTANT SAFETY INFORMATION

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##### WARNINGS & PRECAUTIONS (continued)

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##### ADVERSE REACTIONS

The most common adverse reaction ( $\geq 5\%$  and twice the rate of placebo) is somnolence. Other adverse reactions ( $\geq 2\%$  and  $>$ Placebo) include: anticholinergic effects, balance disorders/falls, headache, akathisia, vomiting, nausea, and arthralgia.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit MedWatch at [www.fda.gov/medwatch](https://www.fda.gov/medwatch) or call 1-800-FDA-1088.

**Please see the adjacent page for Brief Summary of Prescribing Information and visit [www.Neurocrine.com/INGREZZAPI](https://www.Neurocrine.com/INGREZZAPI) for full Prescribing Information.**