



## Neurocrine Biosciences Presents Data on Benztropine Use Among People Treated with Antipsychotics at the 2022 American Psychiatric Nurses Association (APNA) Annual Conference

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SAN DIEGO, Oct. 19, 2022 /PRNewswire/ -- [Neurocrine Biosciences, Inc.](#) (Nasdaq: NBIX) today announced data on the real-world comorbidities, polypharmacy, and treatment patterns of patients on newly prescribed benzotropine who were also being treated with antipsychotic medications. This research will be presented at the 2022 American Psychiatric Nurses Association (APNA) Annual Conference being held October 19–22 both virtually and in Long Beach, CA.



The new findings are from a retrospective 24-month observational study of claims between January 1, 2017, and March 30, 2020 (Poster #152; Characteristics, Polypharmacy, and Medication Adherence Among Patients Prescribed Benzotropine with a History of Antipsychotic Use). Benzotropine is an anticholinergic medication approved as an adjunct for treatment of all forms of parkinsonism, including drug-induced parkinsonism that causes movement problems similar to those seen in Parkinson's disease, such as tremors, slow movement, and stiffness. Benzotropine can also be used to control other antipsychotic-induced movement disorders, except for tardive dyskinesia (TD).

The analysis found that the patient population, who received at least one new benzotropine prescription during the study, often had multiple comorbidities, substantial polypharmacy, and mild, moderate, or severe anticholinergic burden associated with the medications patients were taking prior to initiation of benzotropine. After starting benzotropine, 38 percent of these patients were on this medication for longer than six months, exceeding recommendations for acute use. These results indicate that regular evaluation of anticholinergic use is clinically warranted, especially in patients who are taking multiple medications with anticholinergic properties and have an increased risk of adverse anticholinergic effects.

"The use of benzotropine may be appropriate for acute treatment of some antipsychotic-induced movement disorders, but not for tardive dyskinesia," said Eiry W. Roberts, MD, Chief Medical Officer at Neurocrine Biosciences. "In fact, antiparkinson agents like benzotropine do not alleviate the symptoms of TD and may even aggravate them. These data help characterize the need for increased education regarding appropriate use of anticholinergic medications."

### Additional Presentations Include:

- Global Improvements and Psychiatric Stability in Adults with Tardive Dyskinesia: Post Hoc Analyses of Two Long-Term Valbenazine Studies (Poster #155)
- Long-Term Valbenazine Is Effective for Tardive Dyskinesia in Elderly Patients (≥65 Years) (Poster #164)

The full abstracts being presented by Neurocrine Biosciences at the 2022 APNA Annual Conference can be accessed by registering for the meeting [here](#).

### About Tardive Dyskinesia (TD)

Tardive dyskinesia (TD) is a movement disorder that is characterized by uncontrollable, abnormal, and repetitive movements of the face, torso, and/or other body parts, which may be disruptive and negatively impact patients. The condition is associated with taking certain kinds of mental health medicines (like antipsychotics) that help control dopamine receptors in the brain. Taking antipsychotics commonly prescribed to treat mental illnesses such as depression, bipolar disorder, schizophrenia, and schizoaffective disorder, and certain medications to treat upset stomach, nausea and vomiting are associated with TD. In patients with TD, these treatments are thought to result in irregular dopamine signaling in a region of the brain that controls movement. The symptoms of TD can be severe and are often persistent and irreversible. TD is estimated to affect approximately 600,000 people in the U.S.

### About INGREZZA® (valbenazine) Capsules

INGREZZA, a selective vesicular monoamine transporter 2 (VMAT2) inhibitor, is an FDA-approved product indicated for the

treatment of adults with tardive dyskinesia, a condition associated with uncontrollable, abnormal, and repetitive movements of the face, torso, and/or other body parts.

INGREZZA is thought to work by reducing the amount of dopamine released in a region of the brain that controls movement and motor function, helping to regulate nerve signaling in adults with tardive dyskinesia. VMAT2 is a protein in the brain that packages neurotransmitters, such as dopamine, for transport and release in presynaptic neurons. INGREZZA, developed by Neurocrine Biosciences, is novel in that it selectively inhibits VMAT2 with no appreciable binding affinity for VMAT1, dopaminergic (including D2), serotonergic, adrenergic, histaminergic, or muscarinic receptors. Additionally, INGREZZA can be taken for the treatment of tardive dyskinesia as one capsule, once-daily, together with most psychiatric medications such as antipsychotics or antidepressants.

## Important Information

### Approved Use

INGREZZA® (valbenazine) capsules is a prescription medicine used to treat adults with movements in the face, tongue, or other body parts that cannot be controlled (tardive dyskinesia).

It is not known if INGREZZA is safe and effective in children.

## IMPORTANT SAFETY INFORMATION

### Do not take INGREZZA if you:

- are allergic to valbenazine, or any of the ingredients in INGREZZA.

### INGREZZA may cause serious side effects, including:

- **Sleepiness (somnolence).** Do not drive, operate heavy machinery, or do other dangerous activities until you know how INGREZZA affects you.
- **Heart rhythm problems (QT prolongation).** INGREZZA may cause a heart problem known as QT prolongation.
- **Symptoms of QT prolongation may include:**
  - fast, slow, or irregular heartbeat
  - shortness of breath
  - dizziness or fainting

### Tell your healthcare provider right away if you have a change in your heartbeat (a fast or irregular heartbeat), or if you faint.

- **Abnormal movements (Parkinson-like).** Symptoms include: shaking, body stiffness, trouble moving or walking, or keeping your balance.

**Before taking INGREZZA, tell your healthcare provider about all of your medical conditions including if you:** have liver or heart problems, are pregnant or plan to become pregnant, or are breastfeeding or plan to breastfeed.

**Tell your healthcare provider about all the medicines you take,** including prescription and over-the-counter medicines, vitamins, and herbal supplements.

**The most common side effect of INGREZZA is sleepiness (somnolence). Other side effects include** changes in balance (balance problems, dizziness) or an increased risk of falls, headache, feelings of restlessness, dry mouth, constipation, and blurred vision.

These are not all of the possible side effects of INGREZZA. Call your doctor for medical advice about side effects. You are encouraged to report negative side effects of prescription drugs to the FDA. Visit MedWatch at [www.fda.gov/medwatch](http://www.fda.gov/medwatch) or call 1-800-FDA-1088.

**Please see accompanying INGREZZA full [Product Information](#).**

## About Neurocrine Biosciences


Neurocrine Biosciences is a neuroscience-focused, biopharmaceutical company with a simple purpose: to relieve suffering for people with great needs, but few options. We are dedicated to discovering and developing life-changing treatments for patients with under-addressed neurological, neuroendocrine, and neuropsychiatric disorders. The company's diverse portfolio includes FDA-approved treatments for tardive dyskinesia, Parkinson's disease, endometriosis,\* and uterine fibroids,\* as well as over a dozen mid- to late-stage clinical programs in multiple therapeutic areas. For three decades, we have applied our unique insight into neuroscience and the interconnections between brain and body systems to treat complex conditions. We relentlessly pursue medicines to ease the burden of debilitating diseases and disorders because you deserve brave science. For more information, visit [neurocrine.com](http://neurocrine.com), and follow the company on [LinkedIn](#), [Twitter](#), and [Facebook](#). (\*In collaboration with AbbVie).

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## Forward-Looking Statements

In addition to historical facts, this press release contains forward-looking statements that involve a number of risks and uncertainties. These statements include, but are not limited to, statements regarding the potential benefits to be derived from INGREZZA and the value INGREZZA may bring to patients. Among the factors that could cause actual results to differ materially from those indicated in the forward-looking statements are: risks and uncertainties associated with the commercialization of INGREZZA; risks that clinical trial activities may not be predictive of real-world results or of results in subsequent clinical trials; risks that INGREZZA may be precluded from commercialization by the proprietary rights of third parties, or have unintended side effects or adverse reactions; risks and uncertainties relating to competitive products and technological changes that may limit demand for INGREZZA; risks associated with our dependence on third parties for development and manufacturing activities related to INGREZZA and our product candidates, and our ability to manage these third parties; risks that the FDA or other regulatory authorities may make adverse decisions regarding our products or product candidates; risks that our products, and/or our product candidates may be precluded from commercialization by the proprietary or regulatory rights of third parties, or have unintended side effects, adverse reactions or incidents of misuse; risks associated with potential generic entrants for our products; risks and uncertainties associated with the scale and duration of the COVID-19 pandemic and resulting global, national, and local economic and financial disruptions; and other risks described in the Company's periodic reports filed with the Securities and Exchange Commission, including without limitation the Company's quarterly report on Form 10-Q for the quarter ended June 30, 2022. Neurocrine Biosciences disclaims any obligation to update the statements contained in this press release after the date hereof.

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