2019 US NOURIANZ™ (Istradefylline) Commercial Update

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Agenda

01 US Parkinson’s Disease Market Dynamics

02 NOURIANZ Launch Priorities

03 2020 NOURIANZ Brand Strategy
Patients with off-time are a subset of the PD population

Up to ~433k Patients are on Levodopa therapy and have “OFF” time in the US

New Patients per Year = ~60,000

Total patients diagnosed = ~1,099,000

93% are treated = ~1,022,000

~78% are taking levodopa = ~792,000

~50% have “OFF” time within 5 years = ~433,000

US PD market is dominated by generic prescriptions

In the U.S., Brand volume accounts for ~8.9% of 3.8M PD prescriptions a year\(^1\)

Sources: Data compiled from Decision Resource Group report: Parkinson’s Disease: Disease Landscape and Forecast, 2017.
Current treatment options enhance or mimic dopamine to address the symptoms of PD, but wearing off occurs as condition progresses.

**Levodopa**
Crosses the blood-brain barrier and presumably is converted to dopamine in the brain.

**COMT Inhibitors**
Inhibit degradation to allow more LD into the brain over a longer time.

**Dopamine Agonists**
Act directly on postsynaptic dopamine receptors, obviating the need for metabolic conversion, storage, and release.

**MAO-B Inhibitors**
Block the catabolism of dopamine, resulting in increased dopamine in the brain.

New treatment approaches are still needed.

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MAO-B, monoamine oxidase type B.

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Surveys indicate off-time remains an unmet need, yet many patients are only treated with 1-2 PD medications

Survey Unmet Needs in Parkinson’s Disease¹

- Neuroprotective treatments that slow down or halt disease progression: 8.6
- Treatments to address motor complications (eg, dyskinesia, freezing): 8.1
- New effective drug treatments with improved side effect profiles: 7.9
- Treatments for non-motor symptoms (eg, psychosis, cognitive decline): 7.8
- Better understanding of Parkinson’s disease etiology: 7.0
- Biomarkers for diagnosis, prediction of disease progression and treatment: 6.9

Note: Respondents were asked how drug developers should prioritize addressing each of the treatment challenges listed above. They rated the treatment challenges using a scale of 1 to 10, where 1 is very low priority and 10 is very high priority. The bar chart displays the mean rating attributed to each treatment challenge across the seven surveyed markets.

Drug Burden for Parkinson’s Disease²

- One drug: 53.1%
- Two drugs: 30.3%
- Three drugs: 12.7%
- Four or more drugs: 3.9%

Source: 1. Datamonitor Healthcare’s Treatment: Parkinson’s disease proprietary survey, June 2016, p. 60
2. Decisions Resource Group – Landscape and Market Forecast Apr 2019
2020 NOURIANZ™ Launch Success Factors

NOURIANZ is an adenosine receptor antagonist indicated as adjunctive treatment with levodopa/carbidopa in adult patients with Parkinson’s Disease (PD) experiencing “off” episodes

1. Raise awareness of NOURIANZ novel MOA

2. Achieve market access with Medicare and Commercial plans

3. Increase awareness and advocacy among Movement Disorder Specialists and Patient Advocacy Groups

Click here to see Important Safety Information and full US Prescribing Information
**Aim to position NOURIANZ™ to be the FIRST ADJUNCT tx**

Build understanding of new Mechanism of Action (MOA) and product profile

<table>
<thead>
<tr>
<th>Mechanism of Action</th>
<th>Safety &amp; Tolerability</th>
<th>Improved OFF Time</th>
<th>Simple Dosing</th>
<th>Manageable DDI</th>
</tr>
</thead>
<tbody>
<tr>
<td>A novel MOA</td>
<td>Well characterized</td>
<td>A non-dopaminergic</td>
<td>Once daily dosing</td>
<td>Can be used in combination with common medications used by PD patients</td>
</tr>
<tr>
<td>First and only</td>
<td>safety and tolerability in clinical trials</td>
<td>product that reduces off-time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adenosine A&lt;sub&gt;2A&lt;/sub&gt; receptor antagonist approved as adjunctive treatment for “off” episodes in U.S.</td>
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</tr>
</tbody>
</table>

Launch Campaign Materials – “Pathways”

EXPLORE
A DIFFERENT PATH

The first and only adenosine $A_{2A}$ receptor antagonist in Parkinson’s disease (PD)

Educate physicians and patients on the alternative to dopaminergic adjunct treatments

Online ads

Brochures
Cross-Functional Execution for Launch Success

**Market Access**
- Kyowa Kirin is engaged with key PBM’s as well as national and regional payers
- Reimbursement support programs

**Corporate Communications**
- Patient Advocacy Group collaboration
- Patient events and education

**Medical Affairs**
- Publication of key Nourianz clinical data
- Scientific Exchange

**Marketing and Field sales**
- 6.4k target prescribers covering 85% of branded prescriptions
- KOL led speaker events
- Digital education for physicians, patients and caregivers
- Sample Program
Direct to patient education—empowering people affected by Parkinson’s disease

“It has to be patient-led in order to get a change in treatment. Neurologists don’t offer treatment switch, it’s up to the patient to ask.”

- Neurologist

Wide Coverage of NOURIANZ™ news

“In my clinical practice, I see patients who experience the troublesome effects of Parkinson’s disease and ‘off’ episodes that interfere with activities of daily living. NOURIANZ represents an important milestone – providing U.S. patients and their caregivers with a nondopaminergic, once-a-day oral treatment option to significantly decrease the amount of ‘off’ time.”

Peter A. LeWitt, M.D.,
Professor of Neurology, Wayne State University School of Medicine and Director, Parkinson’s Disease and Movement Disorders Program, Henry Ford Hospital.

Press releases received 72M total impressions and 412 NOURIANZ mentions on social media

“Options such as NOURIANZ are a step forward in treating ‘off’ episodes... We encourage patients to speak with their healthcare providers if they are experiencing ‘off’ episodes.”

Rachel Dolhun, M.D.,
Vice President, Medical Communications at The Michael J. Fox Foundation.
Summary

- US PD market is competitive, however NOURIANZ provides a novel MOA
- Launch readiness activity was robust and well executed, providing foundation for launch
- KOL support will continue to grow with clinical experience
- Field teams are built, trained and now calling on physicians
- Patient education initiatives are being executed
- Negotiations with key payers are ongoing
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