



PRESS RELEASE

TOXINS 2021: New analyses of pivotal Phase III trial data highlight long duration of response for Dysport® (abobotulinumtoxinA) in five therapeutic indications

- Analyses of pivotal study data of Dysport® reveal a large proportion of study patients did not require retreatment for at least 12 weeks (and at least 16 weeks for pediatric upper limb spasticity)
- This new analysis concluded that Dysport® is associated with a long duration of response
- These data form one of 26 abstracts Ipsen is presenting at the TOXINS 2021 conference, taking place virtually between 16-17 January 2020, which brings new insights in research, development and manufacturing, including findings with clinical and economic implications for the management of cervical dystonia and spasticity¹⁻²⁸

PARIS, France, 15 January 2021 – Ipsen (Euronext: IPN; ADR: IPSEY) announced results from new analyses of pivotal Phase III clinical trial data to assess treatment intervals over repeat cycles of Dysport® (abobotulinumtoxinA [aboBoNT-A]) in five patient populations. *AbobotulinumtoxinA: Evidence for Long Duration of Response from 5 Patient Populations* is being shared during the TOXINS 2021 conference, which is taking place virtually between 16-17 January 2020 and is organized by the International Neurotoxin Association.¹⁻²⁸ Ipsen is sharing 26 abstracts during the congress, with data including updates from the recently published surveys into the experience of patients and caregivers, data from the Phase IV ULIS-III trial, and ten abstracts focused on basic science research into neurotoxins.¹⁻²⁷

Spasticity is one of the most common and disabling conditions associated with many neurological conditions in adults and is characterized by velocity-dependent muscle hypertonia. Spasticity can lead to disabilities related to muscle stiffness, including impaired walking and hand use, pain, disfigurement and contractures.²⁹

The new analyses of pivotal Phase III clinical trial data included randomized clinical trials and respective open-label extensions to assess treatment intervals over repeat cycles of Dysport® in the management of cervical dystonia (CD), adult lower-limb (ALL) and upper-limb (AUL) spasticity, and pediatric lower-limb (PLL) and upper-limb (PUL) spasticity. Flexible study designs allowed patients to be reinjected after week 12 (or, for PUL, week 16), according to clinical need.¹

Results from the five patient populations highlighted that Dysport® offered a long duration of response when injected at the recommended and approved dose, with a large proportion of study patients not requiring retreatment for more than 12/16 weeks (% patients injected week-16 or later): in the CD study: 72.6-81.5%, ALL study: 20.1-32.0%, AUL study: 24.0-36.9%, PLL studies: 72.8-93.8%; (% children injected week-22 or later in PUL study: 19.6-67.0%) in the five pivotal studies of Dysport®, whilst safety outcomes were as expected.¹

The results observed in Ipsen's Phase III clinical studies were reinforced by real-world data from the ULIS-III observational study – the largest observational study investigating a structured approach to goal setting and outcome measurement.

Dr. Alberto Esquenazi, Sheerr Gait and Motion Analysis Laboratory, MossRehab, U.S. and lead author of the research commented: "Waning symptom relief can lead to pain and movement difficulties between treatments. These data showed the duration of response that Dysport® can offer to patients decreases the chance of patients experiencing symptomatic recurrence before the next injection."

"We are constantly striving to uncover new insights into the therapeutic use of botulinum toxins, including key aspects of treatment such as duration of response," said Prof. Dr. Steven Hildemann, Executive Vice President, Chief Medical Officer, Head of Global Medical Affairs and Patient Safety, Ipsen. "The breadth and depth of our data shared at TOXINS 2021 underscores Ipsen's commitment to advancing the science and understanding the real-world impact of spasticity and dystonia to deliver treatments with individual and clinical benefits."

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Overview of Ipsen presentations at TOXINS 2021 Congress:¹⁻²⁷

Abstract title
AbobotulinumtoxinA: Evidence for Long Duration of Response from 5 Patient Populations Alberto Esquenazi, Mauricio R. Delgado, Robert A. Hauser, Andreas Lysandropoulos, Jean-Michel Gracies
The Systematic Approach to Developing a Cell-Free Platform Process for Recombinant Toxin Production Williams Olughu, Kevin Moore, Cillian Paget, David Gruber
Digitisation of Toxin Development Alison Mason, Sian Richardson, Alina Bugajewska-Waller, David Gruber
Automated fermentation platform for Toxin-based Therapeutics Stanislav Pepeliaev
Quantity of Prabotulinumtoxin Type A in 100U vials David Allcock, Andrew Splevins, Hamzah Baig, Daniel Higazi
3D reconstruction and analysis of neuromuscular junction distribution in whole skeletal muscles in the rat using light-sheet microscopy Denis Carré, Renaud Morin, Marine Norlund, Aurélie Gomes, Jean-Michel Lagarde, Stephane Lezmi
BoNT Intoxication: Functional Genomics Reveals an Unexpected Trafficking Route Jeremy Yeo, Omar Loss, Iwona Ziomkiewicz, Johannes Krupp, Felicia Tay, Keith Foster, Matthew Beard, Frederic Bard
Effects of recombinant botulinum neurotoxin type A1 on CFA-induced mechanical allodynia and sensory neurone responses to mechanical stimulation monitored with GCaMP fluorescence in mice Beatrice Oehler, Cindy Perier, Amy Fisher, Mikhail Kalinichev and Stephen McMahon
Management of Symptom Re-Emergence in Patients Living with Spasticity and Cervical Dystonia: Findings from 2 Online Patient Surveys Alberto Esquenazi, Joaquim J. Ferreira, Jorge Jacinto, Andreas Lysandropoulos, Cynthia Comella
Patients Experiences of Symptom Re-Emergence: Findings from 2 Online Patient Surveys in Spasticity and Cervical Dystonia Alberto Esquenazi, Joaquim J. Ferreira, Jorge Jacinto, Andreas Lysandropoulos, Cynthia Comella
Patient Perceptions of Spasticity and Treatment Satisfaction Over the Course of a Botulinum Neurotoxin A (BoNT-A) Treatment Cycle: An Ethnographic Study of Stroke Survivors Jorge Jacinto, Andreas Lysandropoulos, Antony Fulford Smith
Longitudinal Goal Attainment with Integrated Upper Limb Spasticity Management Including Botulinum Toxin A: Primary Results from the ULIS-III Study Lynne Turner-Stokes, Klemens Fheodoroff, Jorge Jacinto, Allison Brashear, Pascal Maisonobe, Andreas Lysandropoulos, Stephen Ashford
Real-Life Data on the Time to Retreatment with Botulinum Toxin A in Upper Limb Spasticity Management Jorge Jacinto, Stephen Ashford, Klemens Fheodoroff, Allison Brashear, Pascal Maisonobe, Andreas Lysandropoulos, Lynne Turner-Stokes
Pain in Cervical Dystonia: A Meta-Analysis of Outcomes Following Treatment with AbobotulinumtoxinA in Randomized, Controlled Clinical Studies Raymond L. Rosales, Lorraine Cuffe, Benjamin Regnault, Richard M Trosch
Impact of patient input on the study execution of an observational study assessing the effectiveness of abobotulinumtoxinA treatment in leg spasticity management in adults Alberto Esquenazi, Pascal Maisonobe, Carlos Durán Sánchez, Andreas Lysandropoulos, Stephen Ashford
Improvement of Spastic Paresis and Cervical Dystonia Management: Assessment of Seven Years of the Innovative International Educational Program Ixcellence Network® Nigar Dursun, Tae Mo Chung, Carlo Colosimo, Roongroj Bhidayasiri, Kailash Bhatia, Julie Tiley, Jorge Jacinto

<p>Long-Term Efficacy and Safety of Liquid Formulation AbobotulinumtoxinA for the Treatment of Moderate-to-Severe Glabellar Lines: A Phase III, Double-Blind, Placebo-Controlled and Open-Label Repeat Injection Study Philippe Kestemont, Said Hilton, Bill Andriopoulos, Inna Prygova, Catherine Thompson, Magali Volteau, Benjamin Ascher</p>
<p>Patient satisfaction with abobotulinumtoxinA for aesthetic use in the upper face: A Systematic literature review and post hoc analysis of the APPEAL study Riekie Smit, Elena Gubanova, Joely Kaufman, Marina Landau, Beatriz Molina, Bill Andriopoulos, Pascal Maisonobe, Inna Prygova, Alessio Redaelli</p>
<p>BoNT-As for Adult Spasticity and Cervical Dystonia: Cost-Effectiveness Analysis and the Cost of Response in the United Kingdom Karissa Johnston, Natalya Danchenko, Talshyn Bolatova, John Whalen</p>
<p>Economic outcomes in real-world use of botulinum toxin-A products for adult patients with upper limb spasticity: a UK perspective Lynne Turner-Stokes, Stephen Ashford, Jorge Jacinto, Klemens Fheodoroff, Natalya Danchenko, Pascal Maisonobe, Michael Williams, John Whalen</p>
<p>Cost-Effectiveness of BoNT-A Products for Treatment of Pediatric Spasticity in the United Kingdom Natalya Danchenko, Karissa Johnston, Talshyn Bolatova, John Whalen</p>
<p>The Spasticity-Related Quality of Life 6-Dimensions Tool (SQOL-6D) in Upper Limb Spasticity: A First Psychometric Evaluation Lynne Turner-Stokes, Klemens Fheodoroff, Jorge Jacinto, Jeremy Lambert, Christine de la Loge, John Whalen, Pascal Maisonobe, Stephen Ashford</p>
<p>AbobotulinumtoxinA in the Management of Hallux Valgus in Adult Patients: Results of a Randomized and Placebo-Controlled Phase II Trial Selene G Parekh, David G Armstrong, Lawrence A DiDomenico, Babak Baravarian, Magali Volteau, Robert Silva</p>
<p>Dosing from a Phase 3, Pivotal Study of AbobotulinumtoxinA Injection in Upper-Limb Muscles in Pediatric Patients with Cerebral Palsy Joyce Oleszek, Ann Tilton, Jorge Carranza, Nigar Dursun, Marcin Bonikowski, Edward Dabrowski, Benjamin Regnault, Mauricio R. Delgado on behalf of the Dysport in PUL study group</p>
<p>Efficacy and Safety of AbobotulinumtoxinA in Pediatric Lower Limb Spasticity: 2nd Interim Results from a Phase IV, Prospective, Observational, Multicenter Study Mark Gormley, Edward Dabrowski, Ann Tilton, Asare Christian, Sarah Helen Evans, Pascal Maisonobe, Stefan Wietek</p>
<p>Development of the Hygiene Extension Limb Position Pain (HELP) Tool to Monitor Waning of Clinical Efficacy in Patients with Spasticity or Cervical Dystonia Treated with Botulinum Toxins Atul Patel, Stefan Wietek, Edward Dabrowski</p>

About spasticity

Spasticity is estimated to affect more than 12 million people worldwide.³⁰ It is a condition in which certain muscles are continuously contracted causing stiffness or tightness of the muscles, which can interfere with normal movement, gait and speech.³¹ Spasticity is usually caused by damage to the parts of the brain or spinal cord that control voluntary movement,³¹⁻³² leading to a change in the balance of signals between the nervous system and the muscles which leads to increased activity in the muscles.³¹ Spinal cord injury, multiple sclerosis, cerebral palsy, stroke, brain or head trauma and metabolic diseases can all cause spasticity.³² Spasticity is experienced by approximately 34% of stroke survivors within 18 months following a stroke.³³

About cervical dystonia

Cervical dystonia (CD), also known as spasmodic torticollis, is a movement disorder in which involuntary muscular contractions occur primarily in the neck muscles.^{34,35} This can cause the head to turn to one side or to be pulled backward or forward.^{34,36} CD is relatively uncommon, affecting 57 to 280 people per million.³⁷ It can occur at any age, although symptoms generally appear in middle age, often beginning slowly and usually reaching a plateau over a few months or years.³⁸ The degeneration of the spine, irritation of nerve roots or frequent headaches can make CD particularly painful.³⁸ In most cases the cause is unknown and no cure exists.³⁷

About Dysport®

Dysport® (abobotulinumtoxinA) is an injectable form of a botulinum neurotoxin type A (BoNT-A) product, which is a substance derived from Clostridium bacteria producing BoNT-A that inhibits the effective transmission of nerve impulses and thereby reduces muscular contractions. It is supplied as a lyophilized powder. AbobotulinumtoxinA has marketing authorization in more than 90 countries, more than 30 years of clinical experience and six million treatment years of patient experience.

The detailed recommendations for the use of Dysport are described in the Summary of Product Characteristics (SmPC) for [Dysport \(300 units\) Powder](#) and [Dysport \(500 units\) Powder](#), and the [U.S. Prescribing Information](#) (PI).

NOTE: Dysport® labels and approved indications may vary from country to country.

About Ipsen

Ipsen is a global specialty-driven biopharmaceutical group focused on innovation and Specialty Care. The Group develops and commercializes innovative medicines in three key therapeutic areas – Oncology, Neuroscience, and Rare Diseases. Ipsen also has a well-established Consumer Healthcare business. With total sales over €2.5 billion in 2019, Ipsen sells more than 20 drugs in over 115 countries, with a direct commercial presence in more than 30 countries. Ipsen's R&D is focused on its innovative and differentiated technological platforms located in the heart of the leading biotechnological and life sciences hubs (Paris-Saclay, France; Oxford, UK; Cambridge, US). The Group has about 5,700 employees worldwide. Ipsen is listed in Paris (Euronext: IPN) and in the United States through a Sponsored Level I American Depositary Receipt program (ADR: IPSEY). For more information on Ipsen, visit www.ipсен.com

Ipsen's Forward Looking Statement

The forward-looking statements, objectives and targets contained herein are based on the Group's management strategy, current views and assumptions. Such statements involve known and unknown risks and uncertainties that may cause actual results, performance or events to differ materially from those anticipated herein. All of the above risks could affect the Group's future ability to achieve its financial targets, which were set assuming reasonable macroeconomic conditions based on the information available today. Use of the words "believes", "anticipates" and "expects" and similar expressions are intended to identify forward-looking statements, including the Group's expectations regarding future events, including regulatory filings and determinations, and the outcome of this study or other studies. Moreover, the targets described in this document were prepared without taking into account external growth assumptions and potential future acquisitions, which may alter these parameters. These objectives are based on data and assumptions regarded as reasonable by the Group. These targets depend on conditions or facts likely to happen in the future, and not exclusively on historical data. Actual results may depart significantly from these targets given the occurrence of certain risks and uncertainties, notably the fact that a promising product in early development phase or clinical trial may end up never being launched on the market or reaching its commercial targets, notably for regulatory or competition reasons. The Group must face or might face competition from generic products that might translate into a loss of market share. Furthermore, the Research and Development process involves several stages each of which involves the substantial risk that the Group may fail to achieve its objectives and be forced to abandon its efforts with regards to a product in which it has invested significant sums. Therefore, the Group cannot be certain that favorable results obtained during preclinical trials will be confirmed subsequently during clinical trials, or that the results of clinical trials will be sufficient to demonstrate the safe and effective nature of the product concerned. There can be no guarantee a product will receive the necessary regulatory approvals or that the product will prove to be commercially successful. If underlying assumptions prove inaccurate or risks or uncertainties materialize, actual results may differ materially from those set forth in the forward-looking statements. Other risks and uncertainties include but are not limited to, general industry conditions and competition; general economic factors, including interest rate and currency exchange rate fluctuations; the impact of 6 pharmaceutical industry regulation and health care legislation; global trends toward health care cost containment; technological advances, new products and patents attained by competitors; challenges inherent in new product development, including obtaining regulatory approval; the Group's ability to accurately predict future market conditions; manufacturing difficulties or delays; financial instability of international economies and sovereign risk; dependence on the effectiveness of the Group's patents and other protections for innovative products; and the exposure to litigation, including patent litigation, and/or regulatory actions. The Group also depends on third parties to develop and market some of its products which could potentially generate substantial royalties; these partners could behave in such ways which could cause damage to the Group's activities and financial results. The Group cannot be certain that its partners will fulfil their obligations. It might be unable to obtain any benefit from those agreements. A default by any of the Group's partners could generate lower revenues than expected. Such situations could have a negative impact on the Group's business, financial position or performance. The Group expressly disclaims any obligation or undertaking to update or revise any forward-looking statements, targets or estimates contained in this press release to reflect any change in events, conditions, assumptions or circumstances on which any such statements are based, unless so required by applicable law. The Group's business is subject to the risk factors outlined in its registration documents filed with the French Autorité des Marchés Financiers. The risks and uncertainties set out are not exhaustive and the reader is advised to refer to the Group's 2019 Universal Registration Document available on its website (www.ipсен.com).

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