

HIGHLIGHTS OF PRESCRIBING INFORMATION

These highlights do not include all the information needed to use DYSPORE safely and effectively. See full prescribing information for DYSPORE.

DYSPORE® (abobotulinumtoxinA) for injection, for intramuscular use
Initial U.S. Approval: 2009

WARNING: DISTANT SPREAD OF TOXIN EFFECT

See full prescribing information for complete boxed warning

The effects of DYSPORE and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life-threatening and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can occur in adults, particularly in those patients who have underlying conditions that would predispose them to these symptoms (5.2).

RECENT MAJOR CHANGES

Warnings and Precautions, Hypersensitivity Reactions (5.3) 11/2018
Warnings and Precautions, Dry Eye with the Treatment of Glabellar Lines (5.6) 11/2018

INDICATIONS AND USAGE

DYSPORE is an acetylcholine release inhibitor and a neuromuscular blocking agent indicated for:

- The treatment of adults with cervical dystonia (1.1)
- The temporary improvement in the appearance of moderate to severe glabellar lines associated with procerus and corrugator muscle activity in adult patients < 65 years of age (1.2)
- The treatment of spasticity in adults (1.3)
- The treatment of lower limb spasticity in pediatric patients 2 years of age and older (1.4)

DOSAGE AND ADMINISTRATION

Instructions for Safe Use (2.1)

- Once reconstituted, store in original container in a refrigerator at 2°C to 8°C (36°F to 46°F) and use within 24 hours
- Do not freeze after reconstitution
- Protect from light
- Reconstitution instructions are specific for the 300 Unit and 500 Unit vials
- Reconstituted DYSPORE is intended for intramuscular injection only. After reconstitution, DYSPORE should be used for only one injection session and for only one patient

Cervical Dystonia (2.2)

- Initial dose is 500 Units given intramuscularly as a divided dose among the affected muscles
- Re-treatment every 12 to 16 weeks or longer, as necessary, based on return of clinical symptoms with doses administered between 250 Units and 1000 Units to optimize clinical benefit
- Re-treatment should not occur in intervals of less than 12 weeks
- Titrate in 250 Unit steps according to patient's response

Glabellar Lines (2.3)

- Administer a total dose of 50 Units, divided in five equal aliquots of 10 Units each, intramuscularly to affected muscles to achieve clinical effect
- Re-treatment should be administered no more frequently than every 3 months

Spasticity in Adults (2.4)

- Select dose based on muscles affected, severity of muscle spasticity, prior response and adverse reaction history following treatment with DYSPORE or other botulinum toxin A
- Dosing for upper limb spasticity: between 500 Units and 1000 Units
- Dosing for lower limb spasticity: up to 1500 Units
- The maximum recommended total dose per treatment session (upper and lower limb combined) in adults is 1500 Units
- Re-treatment, based on return of clinical symptoms, should not occur in intervals of less than 12 weeks

Pediatric Lower Limb Spasticity (2.5)

- Select dose based on the affected muscle, severity of spasticity, and treatment history with botulinum toxins
- Dosing is based on Units/kg; recommended total DYSPORE dose per treatment session is 10 to 15 Units/kg per limb
- Total dose per treatment session must not exceed 15 Units/kg for unilateral lower limb injections, 30 Units/kg for bilateral injections, or 1000 units, whichever is lower
- Re-treatment, based on return of clinical symptoms, should not occur in intervals of less than 12 weeks

DOSAGE FORMS AND STRENGTHS

- For Injection: 300 Units or 500 Units lyophilized powder in a single-use vial for reconstitution with preservative-free 0.9% Sodium Chloride Injection, USP (3)

CONTRAINDICATIONS

Hypersensitivity to:

- any botulinum toxin product or excipients (4, 5.3)
- cow's milk protein (4, 5.3)

Infection at the proposed injection site(s) (4)

WARNINGS AND PRECAUTIONS

- The potency units of DYSPORE are not interchangeable with other preparations of botulinum toxin products and, therefore, units of biological activity of DYSPORE cannot be compared to or converted into units of any other botulinum toxin products (5.1)
- Immediate medical attention may be required in cases of respiratory, speech or swallowing difficulties (5.4)
- Recommended dose and frequency of administration should not be exceeded (5.5)
- Concomitant neuromuscular disorder may exacerbate clinical effects of treatment (5.7)
- DYSPORE contains human albumin. There is a risk for transmission of Creutzfeldt-Jakob disease (CJD) however, no cases of transmission of viral diseases or CJD have ever been identified for albumin (5.8)

ADVERSE REACTIONS

Most commonly observed adverse reactions are (6.1):

Cervical Dystonia

(≥5%): muscular weakness, dysphagia, dry mouth, injection site discomfort, fatigue, headache, musculoskeletal pain, dysphonia, injection site pain and eye disorders

Glabellar Lines

(≥2%): nasopharyngitis, headache, injection site pain, injection site reaction, upper respiratory tract infection, eyelid edema, eyelid ptosis, sinusitis, nausea, and blood present in urine

Spasticity in Adults

- Upper limb spasticity (>2%): urinary tract infection, nasopharyngitis, muscular weakness, musculoskeletal pain, dizziness, fall and depression
- Lower limb spasticity (≥5%): falls, muscular weakness, and pain in extremity

Lower Limb Spasticity in Pediatric Patients

(≥10%): upper respiratory tract infection, nasopharyngitis, influenza, pharyngitis, cough and pyrexia

To report SUSPECTED ADVERSE REACTIONS, contact Ipsen Biopharmaceuticals, Inc. at 855-463-5127 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch

DRUG INTERACTIONS

- Concomitant use of DYSPORE and aminoglycosides or other agents interfering with neuromuscular transmission (e.g., curare-like agents), or muscle relaxants, should be observed closely because the effect of botulinum toxin may be potentiated (7)
- Anticholinergic drugs may potentiate systemic anticholinergic effects (7)
- The effect of administering different botulinum neurotoxins during the course of treatment with DYSPORE is unknown (7)

USE IN SPECIFIC POPULATIONS

- Administer DYSPORE with care in elderly patients, reflecting the greater frequency of concomitant disease and other drug therapy (8.5)

See 17 for PATIENT COUNSELING INFORMATION and Medication Guide

Revised: 11/2018

FULL PRESCRIBING INFORMATION: CONTENTS*

WARNING: DISTANT SPREAD OF TOXIN EFFECT

1 INDICATIONS AND USAGE

- 1.1 Cervical Dystonia
- 1.2 Glabellar Lines
- 1.3 Spasticity in Adults
- 1.4 Lower Limb Spasticity in Pediatric Patients

2 DOSAGE AND ADMINISTRATION

- 2.1 Instructions for Safe Use
- 2.2 Dosing in Cervical Dystonia
- 2.3 Dosing in Glabellar Lines
- 2.4 Dosing in Spasticity in Adults
- 2.5 Dosing in Lower Limb Spasticity in Pediatric Patients

3 DOSAGE FORMS AND STRENGTHS

4 CONTRAINDICATIONS

5 WARNINGS AND PRECAUTIONS

- 5.1 Lack of Interchangeability between Botulinum Toxin Products
- 5.2 Spread of Toxin Effect
- 5.3 Hypersensitivity Reactions
- 5.4 Dysphagia and Breathing Difficulties
- 5.5 Facial Anatomy in the Treatment of Glabellar Lines
- 5.6 Dry Eye with the Treatment of Glabellar Lines
- 5.7 Pre-existing Neuromuscular Disorders
- 5.8 Human Albumin and Transmission of Viral Diseases
- 5.9 Intradermal Immune Reaction

6 ADVERSE REACTIONS

- 6.1 Clinical Trials Experience
- 6.2 Postmarketing Experience
- 6.3 Immunogenicity

7 DRUG INTERACTIONS

8 USE IN SPECIFIC POPULATIONS

- 8.1 Pregnancy
- 8.2 Lactation
- 8.3 Females and Males of Reproductive Potential
- 8.4 Pediatric Use
- 8.5 Geriatric Use
- 8.6 Ethnic Groups

10 OVERDOSAGE

11 DESCRIPTION

12 CLINICAL PHARMACOLOGY

- 12.1 Mechanism of Action
- 12.2 Pharmacodynamics
- 12.3 Pharmacokinetics

13 NONCLINICAL TOXICOLOGY

- 13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

14 CLINICAL STUDIES

- 14.1 Cervical Dystonia
- 14.2 Glabellar Lines
- 14.3 Spasticity in Adults
- 14.4 Pediatric Patients with Lower Limb Spasticity

16 HOW SUPPLIED/STORAGE AND HANDLING

17 PATIENT COUNSELING INFORMATION

* Sections or subsections omitted from the full prescribing information are not listed.

FULL PRESCRIBING INFORMATION

WARNING: DISTANT SPREAD OF TOXIN EFFECT

Postmarketing reports indicate that the effects of DYSPO[®] and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These may include asthenia, generalized muscle weakness, diplopia, blurred vision, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been reports of death. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have underlying conditions that would predispose them to these symptoms. In unapproved uses, including upper limb spasticity in children, and in approved indications, cases of spread of effect have been reported at doses comparable to or lower than the maximum recommended total dose [see Warnings and Precautions (5.2)].

1 INDICATIONS AND USAGE

1.1 Cervical Dystonia

DYSPO[®] is indicated for the treatment of adults with cervical dystonia.

1.2 Glabellar Lines

DYSPO[®] is indicated for the temporary improvement in the appearance of moderate to severe glabellar lines associated with procerus and corrugator muscle activity in adult patients less than 65 years of age.

1.3 Spasticity in Adults

DYSPO[®] is indicated for the treatment of spasticity in adult patients.

1.4 Lower Limb Spasticity in Pediatric Patients

DYSPO[®] is indicated for the treatment of lower limb spasticity in pediatric patients 2 years of age and older.

2 DOSAGE AND ADMINISTRATION

2.1 Instructions for Safe Use

The potency units of DYSPO[®] are specific to the preparation and assay method utilized. They are not interchangeable with other preparations of botulinum toxin products and, therefore, units of biological activity of DYSPO[®] cannot be compared to or converted into units of any other botulinum toxin products assessed with any other specific assay method [see Description (11)]. Reconstituted DYSPO[®] is intended for intramuscular injection only.

Reconstitution instructions are specific for each of the 300 Unit vial and the 500 Unit vial. These volumes yield concentrations specific for the use for each indication (see Table 1).

Table 1: Dilution Instructions for DYSPO[®] Vials (500 Units and 300 Units)

Diluent* per 500 Unit Vial	Resulting Dose Units per 0.1 mL	Diluent* per 300 Unit Vial	Resulting Dose Units per 0.1 mL
1 mL	50 Units	0.6 mL	50 Units
2 mL	25 Units	--	--
2.5 mL	20 Units	1.5 mL	20 Units
--	--	2.5 mL	12 Units
5 mL [‡]	10 Units	3 mL	10 Units

*Preservative-free 0.9% Sodium Chloride Injection, USP Only

Note: These dilutions are calculated for an injection volume of 0.1 mL. A decrease or increase in the DYSPO[®] dose is also possible by administering a smaller or larger injection volume (i.e., 0.05 mL (50% decrease in dose), 0.08 mL (20% decrease in dose) or 0.15 mL (50% increase in dose).

[‡] When using 5 mL of diluent for a 500 Unit vial of DYSPO[®], complete the following steps [see Dosing in Spasticity in Adults (2.4)]:

1. Reconstitute a 500 Unit vial of DYSPO[®] with 2.5 mL of Preservative-free 0.9% Sodium Chloride Injection, USP, gently mix, and set the vial aside.
2. Withdraw 2.5 mL of Preservative-free 0.9% Sodium Chloride Injection, USP, into a 5 mL syringe.
3. Take the 5 mL syringe with 2.5 mL Preservative-free 0.9% Sodium Chloride Injection, USP, and draw up the DYSPO[®] solution from the reconstituted vial without inverting and mix gently. The resulting concentration will be 10 units/0.1 mL.
4. Use immediately after reconstitution in the syringe. Dispose of any unused saline.

After reconstitution, DYSPO[®] should be used for only one injection session and for only one patient. Once reconstituted, DYSPO[®] should be stored in the original container, in a refrigerator at 2°C to 8°C (36°F to 46°F), protected from light for up to 24 hours. It must be discarded if not used within 24 hours. Do not freeze reconstituted DYSPO[®]. Discard the vial and needle in accordance with local regulations.

2.2 Dosing in Cervical Dystonia

The recommended initial dose of DYSPO[®] for the treatment of cervical dystonia is 500 Units given intramuscularly as a divided dose among affected muscles in patients with or without a history of prior treatment with botulinum toxin. (A description of the average DYSPO[®] dose and percentage of total dose injected into specific muscles in the pivotal clinical trials can be found in Table 12 of Section 14.1, Clinical Studies – Cervical Dystonia.) Limiting the dose injected into the sternocleidomastoid muscle may reduce the occurrence of dysphagia. Clinical studies with DYSPO[®] in cervical dystonia suggest that the peak effect occurs between two and four weeks after injection. Simultaneous EMG-guided application of DYSPO[®] may be helpful in locating active muscles.

Dose Modification

Where dose modification is necessary for the treatment of cervical dystonia, uncontrolled open-label studies suggest that dose adjustment can be made in 250 Unit steps according to the individual patient's response, with re-treatment every 12 weeks or longer, as necessary, based on return of clinical symptoms. Uncontrolled, open-label studies also suggest that the total dose administered in a single treatment should be between 250 Units and 1000 Units. Re-treatment, if needed, should not occur in intervals of less than 12 weeks. Doses above 1000 Units have not been systematically evaluated.

The starting dose of 500 Units recommended for cervical dystonia is applicable to adults of all ages [see Use in Specific Populations (8.5)].

Instructions for Preparation and Administration for the Treatment of Cervical Dystonia

DYSPO[®] is supplied as a single-use vial. Only use sterile preservative-free 0.9% Sodium Chloride Injection, USP for reconstitution of DYSPO[®]. Each 500 Unit vial of DYSPO[®] is to be reconstituted with 1 mL of preservative-free 0.9% Sodium Chloride Injection USP to yield a solution of 50 Units per 0.1 mL or reconstituted with 2 mL of preservative-free 0.9% Sodium Chloride Injection USP to yield a solution of 25 Units per 0.1 mL. Each 300 Unit vial of DYSPO[®] is to be reconstituted with 0.6 mL of preservative-free 0.9% Sodium Chloride Injection USP to yield a solution equivalent to 50 Units per 0.1 mL.

Using an appropriately sized sterile syringe, needle and aseptic technique, draw up 2 mL or 1 mL of sterile, preservative-free 0.9% Sodium Chloride Injection USP for the 500 Unit vial or 0.6 mL of sterile, preservative-free 0.9% Sodium Chloride Injection USP for the 300 Unit vial. Insert the needle into the DYSPORT vial. The partial vacuum will begin to pull the saline into the vial. Any remaining required saline should be expressed into the vial manually. Do not use the vial if no vacuum is observed. Swirl gently to dissolve. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Reconstituted DYSPORT should be a clear, colorless solution, free of particulate matter, otherwise it should not be injected.

Expel any air bubbles in the syringe barrel. Remove the needle used to reconstitute the product and attach an appropriately sized new sterile needle.

Discard the vial and needle in accordance with local regulations.

2.3 Dosing in Glabellar Lines

The dose of DYSPORT for the treatment of glabellar lines is a total of 50 Units given intramuscularly in five equal aliquots of 10 Units each to achieve clinical effect (see Figure 1).

A total dose of 50 Units of DYSPORT, in five equal aliquots, should be administered to achieve clinical effect.

The clinical effect of DYSPORT may last up to four months. Repeat dose clinical studies demonstrated continued efficacy with up to four repeated administrations. It should be administered no more frequently than every three months. When used for re-treatment, DYSPORT should be reconstituted and injected using the same techniques as the initial treatment.

Instructions for Preparation and Administration for the Treatment of Glabellar Lines

DYSPORT is supplied as a single-use vial. Only use sterile preservative-free 0.9% Sodium Chloride Injection, USP for reconstitution of DYSPORT. Each 300 Unit vial of DYSPORT is to be reconstituted with 2.5 mL of preservative-free 0.9% Sodium Chloride Injection USP prior to injection. The concentration of the resulting solution will be 10 Units per 0.08 mL (12 Units per 0.1 mL) to be delivered in five equally divided aliquots of 0.08 mL each. DYSPORT may also be reconstituted with 1.5 mL of preservative-free 0.9% Sodium Chloride Injection USP for a solution of 10 Units per 0.05 mL (20 Units per 0.1 mL) to be delivered in five equally divided aliquots of 0.05 mL each.

Using an appropriately sized sterile syringe, needle and aseptic technique, draw up 2.5 mL or 1.5 mL of preservative-free 0.9% Sodium Chloride Injection USP. Insert the needle into the DYSPORT vial. The partial vacuum will begin to pull the saline into the vial. Any remaining required saline should be expressed into the vial manually. Do not use the vial if no vacuum is observed. Swirl gently to dissolve. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Reconstituted DYSPORT should be a clear, colorless solution, free of particulate matter otherwise it should not be injected.

Draw a single patient dose of DYSPORT into a sterile syringe. Expel any air bubbles in the syringe barrel. Remove the needle used to reconstitute the product and attach a 30-gauge needle.

Discard the vial and needle in accordance with local regulations.

Injection Technique

Glabellar facial lines arise from the activity of the lateral corrugator and vertical procerus muscles. These can be readily identified by palpating the tensed muscle mass while having the patient frown. The corrugator depresses the skin creating a “furrowed” vertical line surrounded by tensed muscle (i.e., frown lines). The location, size, and use of the muscles vary markedly among individuals. Physicians administering DYSPORT must understand the relevant neuromuscular and/or orbital anatomy of the area involved and any alterations to the anatomy due to prior surgical procedures.

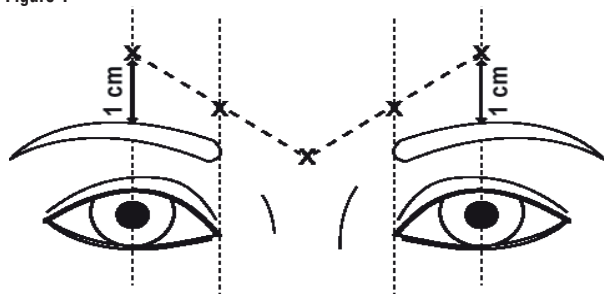
Risk of ptosis can be mitigated by careful examination of the upper lid for separation or weakness of the levator palpebrae muscle (true ptosis), identification of lash ptosis, and evaluation of the range of lid excursion while manually depressing the frontalis to assess compensation.

In order to reduce the complication of ptosis, the following steps should be taken:

- Avoid injection near the levator palpebrae superioris, particularly in patients with larger brow depressor complexes.
- Medial corrugator injections should be placed at least 1 centimeter above the bony supraorbital ridge.
- Ensure the injected volume/dose is accurate and where feasible kept to a minimum.
- Do not inject toxin closer than 1 centimeter above the central eyebrow.

To inject DYSPORT, advance the needle through the skin into the underlying muscle while applying finger pressure on the superior medial orbital rim. Inject patients with a total of 50 Units in five equally divided aliquots. Using a 30-gauge needle, inject 10 Units of DYSPORT into each of five sites, two in each corrugator muscle, and one in the procerus muscle (see Figure 1).

Figure 1



2.4 Dosing in Spasticity in Adults

Dosing in initial and subsequent treatment sessions should be tailored to the individual based on the size, number and location of muscles involved, severity of spasticity, the presence of local muscle weakness, the patient’s response to previous treatment, and/or adverse event history with botulinum toxins.

No more than 1 mL should generally be administered at any single injection site. The maximum recommended total dose (upper and lower limb combined) of DYSPORT for the treatment of spasticity in adults is 1500 Units.

Although actual location of the injection sites can be determined by palpation, the use of injection guiding technique e.g., electromyography, electrical stimulation is recommended to target the injection sites.

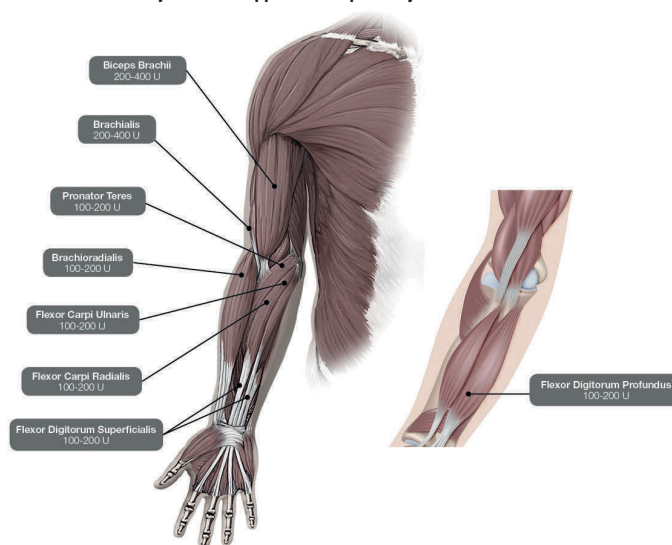
Upper Limb Spasticity

In the clinical trial that assessed the efficacy and safety of DYSPORT for treatment of upper limb spasticity in adults [see Clinical Studies (14.3)], doses of 500 Units and 1000 Units were divided among selected muscles at a given treatment session (see Table 2 and Figure 2).

Table 2: DYSPORT Dosing by Muscle for Upper Limb Spasticity in Adult Patients

Muscles Injected	Recommended Dose DYSPORT	Recommended Number of Injection(s) per Muscle
Flexor carpi radialis (FCR)	100 Units to 200 Units	1 to 2
Flexor carpi ulnaris (FCU)	100 Units to 200 Units	1 to 2
Flexor digitorum profundus (FDP)	100 Units to 200 Units	1 to 2
Flexor digitorum superficialis (FDS)	100 Units to 200 Units	1 to 2
Brachialis	200 Units to 400 Units	1 to 2
Brachioradialis	100 Units to 200 Units	1 to 2
Biceps Brachii (BB)	200 Units to 400 Units	1 to 2
Pronator Teres	100 Units to 200 Units	1

Figure 2: Muscles for Injection for Upper Limb Spasticity in Adults



Repeat DYSPORT treatment should be administered when the effect of a previous injection has diminished, but no sooner than 12 weeks after the previous injection. A majority of patients in clinical studies were retreated between 12-16 weeks; however some patients had a longer duration of response, i.e., 20 weeks. The degree and pattern of muscle spasticity at the time of re-injection may necessitate alterations in the dose of DYSPORT and muscles to be injected. Clinical improvement may be expected one week after administration of DYSPORT.

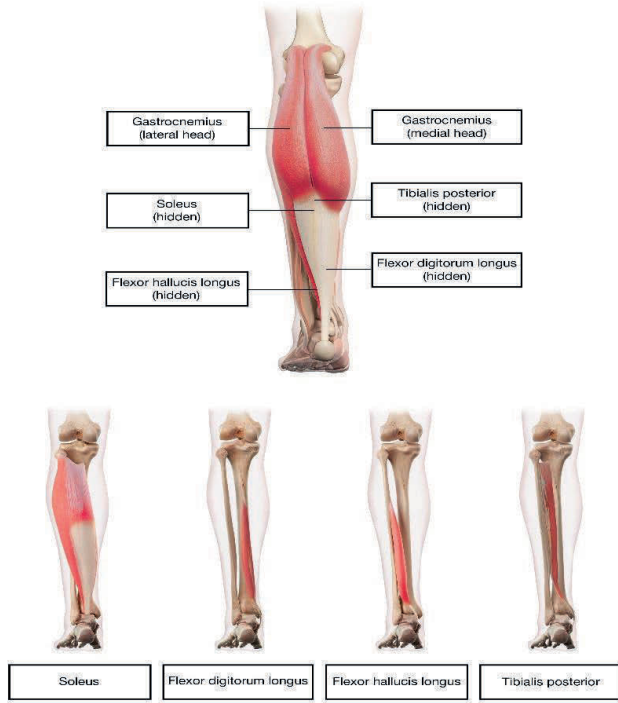
Lower Limb Spasticity

In the clinical trial that assessed the efficacy and safety of DYSPORT for treatment of lower limb spasticity in adults [see Clinical Studies (14.3)], doses of 1000 Units and 1500 Units were divided among selected muscles at a given treatment session (see Table 3 and Figure 3).

Table 3: DYSPORT Dosing by Muscle for Lower Limb Spasticity in Adults

Muscles Injected	Recommended DYSPORT Dose	Recommended Number of Injection Sites per Muscle
Distal Muscles		
Gastrocnemius		
Medial head	100 Units to 150 Units	1
Lateral head	100 Units to 150 Units	1
Soleus	330 Units to 500 Units	3
Tibialis posterior	200 Units to 300 Units	2
Flexor digitorum longus	130 Units to 200 Units	1 to 2
Flexor hallucis longus	70 Units to 200 Units	1

Figure 3: Muscles for Injection for Lower Limb Spasticity in Adults



Repeat DYSPO[®] treatment should be administered when the effect of a previous injection has diminished, but no sooner than 12 weeks after the previous injection. A majority of patients in clinical studies were retreated between 12-16 weeks. The degree and pattern of muscle spasticity at the time of re-injection may necessitate alterations in the dose of DYSPO[®] and muscles to be injected.

Instructions for Preparation and Administration for the Treatment of Spasticity in Adults
 DYSPO[®] is supplied as a single-use vial. Only use sterile preservative-free 0.9% Sodium Chloride Injection, USP for reconstitution of DYSPO[®]. The recommended concentration is 100 Units/mL or 200 Units/mL with preservative-free 0.9% Sodium Chloride Injection USP (see Table 1).

Using an appropriately sized sterile syringe, needle and aseptic technique, draw up the required volume (see Table 1) of preservative-free 0.9% Sodium Chloride Injection USP.

Insert the needle into the DYSPO[®] vial. The partial vacuum will begin to pull the saline into the vial. No more than 2.5 mL of saline should be introduced into the vial (see footnote in Table 1). Do not use the vial if a vacuum is absent. Gently swirl to dissolve. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Reconstituted DYSPO[®] should be a clear, colorless solution, free of particulate matter; otherwise it should not be injected. Expel any air bubbles in the syringe barrel. Remove the needle used to reconstitute the product and attach an appropriately sized new sterile needle.

Discard the vial and needle in accordance with local regulations.

2.5 Dosing in Lower Limb Spasticity in Pediatric Patients

Lower Limb Spasticity in Pediatric Patients 2 years of age and older

DYSPO[®] dosing for pediatric lower limb spasticity is based on Units per kilogram of body weight. Table 4 describes the recommended Units/kg dose of DYSPO[®] per muscle of the Gastrocnemius-Soleus Complex (GSC). The recommended total DYSPO[®] dose per treatment session is 10 to 15 Units/kg for unilateral lower limb injections or 20 to 30 Units/kg for bilateral lower limb injections. However, the total dose of DYSPO[®] administered per treatment session must not exceed 15 Units/kg for unilateral lower limb injections or 30 Units/kg for bilateral lower limb injections or 1000 units, whichever is lower. The total dose administered should be divided between the affected spastic muscles of the lower limb(s). When possible, the dose should be distributed across more than 1 injection site in any single muscle (see Table 4). No more than 0.5 mL of DYSPO[®] should be administered in any single injection site.

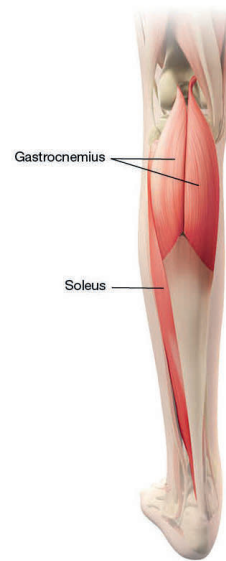
Dosing in initial and sequential treatment sessions should be tailored to the individual patient based on the size, number and location of muscles involved, severity of spasticity, the presence of local muscle weakness, the patient's response to previous treatment, and/or adverse event history with botulinum toxins.

Table 4: DYSPO[®] Dosing by Muscle for Lower Limb Spasticity in Pediatric Patients

Muscle Injected	Recommended DYSPO [®] Dose Range per muscle per leg (Units/kg Body Weight)	Recommended number of injections per muscle
Gastrocnemius	6 to 9 Units/kg*	Up to 4
Soleus	4 to 6 Units/kg*	Up to 2
Total	10 to 15 Units/kg divided across both muscles	Up to 6

*the listed individual doses to be injected in the muscles can be used within the range mentioned without exceeding 15 Units/kg total dose for unilateral injection or 30 Units/kg for bilateral injections or 1000 Units whichever is lower.

Figure 4: Muscles for Injection for Lower Limb Spasticity in Pediatric Patients



Although actual location of the injection sites can be determined by palpation, the use of injection guiding technique, e.g., electromyography or electrical stimulation, is recommended to target the injection sites.

Repeat DYSPO[®] treatment should be administered when the effect of a previous injection has diminished but no sooner than 12 weeks after the previous injection. A majority of patients in the clinical studies were retreated between 16-22 weeks, however; some had a longer duration of response. The degree and pattern of muscle spasticity and overall clinical benefit at the time of re-injection may necessitate alterations in the dose of DYSPO[®] and muscles to be injected.

The safety and effectiveness of DYSPO[®] injected into proximal muscles of the lower limb for the treatment of spasticity in pediatric patients has not been established.

Lower Limb Spasticity in Pediatric Patients less than 2 years of age

The safety and effectiveness of DYSPO[®] in the treatment of lower limb spasticity in pediatric patients of less than 2 years of age has not been evaluated.

Treatment of Upper Limb Spasticity in Pediatric Patients

The safety and effectiveness of DYSPO[®] in the treatment of upper limb spasticity in pediatric patients has not been demonstrated [see Warnings and Precautions (5.2) and Use in Specific Populations (8.4)].

Instructions for Preparation and Administration for the Treatment of Lower Limb Spasticity in Pediatric Patients 2 years and older

DYSPO[®] is supplied as single-use 300Unit or 500Unit vials. Only use sterile preservative-free 0.9% Sodium Chloride Injection, USP for reconstitution of DYSPO[®]. Each 500 Unit vial of DYSPO[®] is to be reconstituted with 2.5 mL of preservative-free 0.9% Sodium Chloride Injection, USP prior to injection. Each 300 Unit vial of DYSPO[®] is to be reconstituted with 1.5 mL of preservative-free 0.9% Sodium Chloride Injection, USP prior to injection. The concentration of the resulting solution will be 20 Units per 0.1 mL. Further dilution with preservative-free 0.9% Sodium Chloride Injection, USP, may be required to achieve the final volume for injection. No more than 0.5 mL of DYSPO[®] should be administered in any single injection site.

To calculate the total units of DYSPO[®] required for treatment of one leg, select the dose of DYSPO[®] in Units/kg/leg and the body weight (kg) of the patient (see Table 4). Using an appropriately sized sterile syringe (e.g., 3 mL syringe), needle and aseptic technique, draw up 2.5 mL of preservative-free 0.9% Sodium Chloride Injection, USP. Insert the needle into the DYSPO[®] 500 Unit vial. The partial vacuum will begin to pull the saline into the vial. Any remaining required saline should be expressed into the vial manually. Do not use the vial if no vacuum is observed. Swirl gently to dissolve. Parenteral drug products should be inspected visually for particulate matter and discoloration prior to administration. Reconstituted DYSPO[®] should be a clear, colorless solution, free of particulate matter; otherwise it should not be injected.

Draw the required patient dose of DYSPO[®] into a sterile syringe and dilute with additional preservative-free 0.9% Sodium Chloride Injection, USP, if required, to achieve the final volume for injection. Expel any air bubbles in the syringe barrel. Remove the needle used to reconstitute the product and attach an appropriately sized new sterile needle.

Use immediately after reconstitution in the syringe.

Discard the vial and needle in accordance with local regulations.

3 DOSAGE FORMS AND STRENGTHS

For injection: 300 Units or 500 Units of lyophilized powder in a single-use vial for reconstitution with preservative-free 0.9% Sodium Chloride Injection, USP.

4 CONTRAINDICATIONS

DYSPO[®] is contraindicated in patients with:

- Known hypersensitivity to any botulinum toxin products, cow's milk protein, or to any of the components in the formulation [see Warnings and Precautions (5.3)]. This product may contain trace amounts of cow's milk protein [see Description (11)].
- Infection at the proposed injection site(s).

5 WARNINGS AND PRECAUTIONS

5.1 Lack of Interchangeability between Botulinum Toxin Products

The potency Units of DYSPO are specific to the preparation and assay method utilized. They are not interchangeable with other preparations of botulinum toxin products and, therefore, units of biological activity of DYSPO cannot be compared to or converted into units of any other botulinum toxin products assessed with any other specific assay method [see Description (1.1)].

5.2 Spread of Toxin Effect

Post-marketing safety data from DYSPO and other approved botulinum toxins suggest that botulinum toxin effects may, in some cases, be observed beyond the site of local injection. The symptoms are consistent with the mechanism of action of botulinum toxin and may include asthenia, generalized muscle weakness, diplopia, blurred vision, ptosis, dysphagia, dysphonia, dysarthria, urinary incontinence and breathing difficulties. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life-threatening and there have been reports of death related to spread of toxin effects. The risk of symptoms is probably greatest in children treated for spasticity but symptoms can also occur in adults treated for spasticity and other conditions, particularly in those patients who have underlying conditions that would predispose them to these symptoms. In unapproved uses, including upper limb spasticity in children and approved indications, symptoms consistent with spread of toxin effect have been reported at doses comparable to or lower than the maximum recommended total dose [see Use in Specific Populations (8.4)].

5.3 Hypersensitivity Reactions

Serious hypersensitivity reactions have been reported with DYSPO. Hypersensitivity reactions include anaphylaxis, serum sickness, urticaria, soft tissue edema, and dyspnea. If such a serious hypersensitivity reaction occurs, discontinue further injection of DYSPO and institute appropriate medical therapy immediately.

5.4 Dysphagia and Breathing Difficulties

Treatment with DYSPO and other botulinum toxin products can result in swallowing or breathing difficulties. Patients with pre-existing swallowing or breathing difficulties may be more susceptible to these complications. In most cases, this is a consequence of weakening of muscles in the area of injection that are involved in breathing or swallowing. When distant effects occur, additional respiratory muscles may be involved [see Warnings and Precautions (5.2)].

Deaths as a complication of severe dysphagia have been reported after treatment with botulinum toxin. Dysphagia may persist for several weeks, and require use of a feeding tube to maintain adequate nutrition and hydration. Aspiration may result from severe dysphagia and is a particular risk when treating patients in whom swallowing or respiratory function is already compromised.

Treatment of cervical dystonia with botulinum toxins may weaken neck muscles that serve as accessory muscles of ventilation. This may result in a critical loss of breathing capacity in patients with respiratory disorders who may have become dependent upon these accessory muscles. There have been post-marketing reports of serious breathing difficulties, including respiratory failure.

Patients treated with botulinum toxin may require immediate medical attention should they develop problems with swallowing, speech or respiratory disorders. These reactions can occur within hours to weeks after injection with botulinum toxin [see Warnings and Precautions (5.2), Adverse Reactions (6.1), Clinical Pharmacology (12.2)].

5.5 Facial Anatomy in the Treatment of Glabellar Lines

Caution should be exercised when administering DYSPO to patients with surgical alterations to the facial anatomy, excessive weakness or atrophy in the target muscle(s), marked facial asymmetry, inflammation at the injection site(s), ptosis, excessive dermatochalasis, deep dermal scarring, thick sebaceous skin [see Dosage and Administration (2.3)] or the inability to substantially lessen glabellar lines by physically spreading them apart [see Clinical Studies (14.2)].

Do not exceed the recommended dosage and frequency of administration of DYSPO. In clinical trials, subjects who received a higher dose of DYSPO had an increased incidence of eyelid ptosis.

5.6 Dry Eye with the Treatment of Glabellar Lines

Dry eye has been reported with the use of DYSPO in the treatment of glabellar lines [see Adverse Reactions (6.2)]. Reduced tear production, reduced blinking, and corneal disorders, may occur with use of botulinum toxins, including DYSPO. If symptoms of dry eye (e.g., eye irritation, photophobia, or visual changes) persist, consider referring patient to an ophthalmologist [see Warnings and Precautions 5.2].

5.7 Pre-existing Neuromuscular Disorders

Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis or neuromuscular junction disorders (e.g., myasthenia gravis or Lambert-Eaton syndrome) should be monitored particularly closely when given botulinum toxin. Patients with neuromuscular disorders may be at increased risk of clinically significant effects including severe dysphagia and respiratory compromise from typical doses of DYSPO [see Adverse Reactions (6.1)].

5.8 Human Albumin and Transmission of Viral Diseases

This product contains albumin, a derivative of human blood. Based on effective donor screening and product manufacturing processes, it carries an extremely remote risk for transmission of viral diseases and variant Creutzfeldt-Jakob disease (vCJD). There is a theoretical risk for transmission of Creutzfeldt-Jakob disease (CJD), but if that risk actually exists, the risk of transmission would also be considered extremely remote. No cases of transmission of viral diseases, CJD, or vCJD have ever been identified for licensed albumin or albumin contained in other licensed products.

5.9 Intradermal Immune Reaction

The possibility of an immune reaction when injected intradermally is unknown. The safety of DYSPO for the treatment of hyperhidrosis has not been established. DYSPO is approved only for intramuscular injection.

6 ADVERSE REACTIONS

The following serious adverse reactions are discussed below and elsewhere in labeling:

- Distant Spread of Toxin Effect [see Boxed Warning]
- Lack of Interchangeability between Botulinum Toxin Products [see Warnings and Precautions (5.1)]
- Spread of Toxin Effect [see Warnings and Precautions (5.2)]
- Hypersensitivity Reactions [see Warnings and Precautions (5.3)]
- Dysphagia and Breathing Difficulties [see Warnings and Precautions (5.4)]
- Facial Anatomy in the Treatment of Glabellar Lines [see Warnings and Precautions (5.5)]
- Dry Eye with the Treatment of Glabellar Lines [see Warnings and Precautions (5.6)]
- Pre-existing Neuromuscular Disorders [see Warnings and Precautions (5.7)]
- Human Albumin and Transmission of Viral Diseases [see Warnings and Precautions (5.8)]
- Intradermal Immune Reaction [see Warnings and Precautions (5.9)]

6.1 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.

Cervical Dystonia

The data described below reflect exposure to DYSPO in 446 cervical dystonia patients in 7 studies. Of these, two studies were randomized, double-blind, single treatment, placebo-controlled studies with subsequent optional open-label treatment in which dose optimization (250 to 1000 Units per treatment) over the course of 5 treatment cycles was allowed.

The population was almost entirely Caucasian (99%) with a median age of 51 years (range 18–82 years). Most patients (87%) were less than 65 years of age; 58.4% were women.

Common Adverse Reactions

The most commonly reported adverse reactions (occurring in 5% or more of patients who received 500 Units of DYSPO in the placebo-controlled clinical trials) in cervical dystonia patients were: muscular weakness, dysphagia, dry mouth, injection site discomfort, fatigue, headache, musculoskeletal pain, dysphonia, injection site pain and eye disorders (consisting of blurred vision, diplopia, and reduced visual acuity and accommodation). Other than injection site reactions, most adverse reactions became noticeable about one week after treatment and lasted several weeks.

The rates of adverse reactions were higher in the combined controlled and open-label experience than in the placebo-controlled trials.

During the clinical studies, two patients (<1%) experienced adverse reactions leading to withdrawal. One patient experienced disturbance in attention, eyelid disorder, feeling abnormal and headache, and one patient experienced dysphagia.

Table 5 compares the incidence of the most frequent adverse reactions from a single treatment cycle of 500 Units of DYSPO compared to placebo [see Clinical Studies (14.1)].

Table 5: Most Common Adverse Reactions (≥5%) and Greater than Placebo in the Pooled, Double-blind, Placebo-Controlled Phase of Clinical Trials in Patients with Cervical Dystonia

Adverse Reactions	DYSPO 500 Units (N=173)	Placebo (N=182)
	%	%
Any Adverse Reaction	61	51
General disorders and administration site conditions	30	23
Injection site discomfort	13	8
Fatigue	12	10
Injection site pain	5	4
Musculoskeletal and connective tissue disorders	30	18
Muscular weakness	16	4
Musculoskeletal pain	7	3
Gastrointestinal disorders	28	15
Dysphagia	15	4
Dry mouth	13	7
Nervous system disorders	16	13
Headache	11	9
Infections and infestations	13	9
Respiratory, thoracic and mediastinal disorders	12	8
Dysphonia	6	2
Eye Disorders*	7	2

* The following preferred terms were reported: vision blurred, diplopia, visual acuity reduced, eye pain, eyelid disorder, accommodation disorder, dry eye, eye pruritus.

Dose-response relationships for common adverse reactions in a randomized multiple fixed-dose study in which the total dose was divided between two muscles (the sternocleidomastoid and splenius capitis) are shown in Table 6.

Table 6: Common Adverse Reactions by Dose in Fixed-dose Study in Patients with Cervical Dystonia

Adverse Reactions	DYSPO [®] Dose			
	Placebo	250 Units	500 Units	1000 Units
Any Adverse Event	30%	37%	65%	83%
Dysphagia	5%	21%	29%	39%
Dry Mouth	10%	21%	18%	39%
Muscular Weakness	0%	11%	12%	56%
Injection Site Discomfort	10%	5%	18%	22%
Dysphonia	0%	0%	18%	28%
Facial Paresis	0%	5%	0%	11%
Eye Disorders*	0%	0%	6%	17%

* The following preferred terms were reported: vision blurred, diplopia, visual acuity reduced, eye pain, eyelid disorder, accommodation disorder, dry eye, eye pruritus.

Injection Site Reactions

Injection site discomfort and injection site pain were common adverse reactions following DYSPO[®] administration.

Less Common Adverse Reactions

The following adverse reactions were reported less frequently (<5%).

Breathing Difficulty

Breathing difficulties were reported by approximately 3% of patients following DYSPO[®] administration and in 1% of placebo patients in clinical trials during the double-blind phase. These consisted mainly of dyspnea. The median time to onset from last dose of DYSPO[®] was approximately one week, and the median duration was approximately three weeks.

Other adverse reactions with incidences of less than 5% in the DYSPO[®] 500 Units group in the double-blind phase of clinical trials included dizziness in 3.5% of DYSPO[®]-treated patients and 1% of placebo-treated patients, and muscle atrophy in 1% of DYSPO[®]-treated patients and in none of the placebo-treated patients.

Laboratory Findings

Patients treated with DYSPO[®] exhibited a small increase from baseline (0.23 mol/L) in mean blood glucose relative to placebo-treated patients. This was not clinically significant among patients in the development program but could be a factor in patients whose diabetes is difficult to control.

Electrocardiographic Findings

ECG measurements were only recorded in a limited number of patients in an open-label study without a placebo or active control. This study showed a statistically significant reduction in heart rate compared to baseline, averaging about three beats per minute, observed thirty minutes after injection.

Glabellar Lines

In placebo-controlled clinical trials of DYSPO[®], the most common adverse reactions (≥2%) following injection of DYSPO[®] were nasopharyngitis, headache, injection site pain, injection site reaction, upper respiratory tract infection, eyelid edema, eyelid ptosis, sinusitis, nausea, and blood present in urine.

Table 7 reflects exposure to DYSPO[®] in 398 patients 19 to 75 years of age who were evaluated in the randomized, placebo-controlled clinical studies that assessed the use of DYSPO[®] for the temporary improvement in the appearance of glabellar lines [see *Clinical Studies (14.2)*].

Adverse reactions of any cause occurred in 48% of the DYSPO[®]-treated patients and 33% of the placebo-treated patients.

Table 7: Most Common Adverse Reactions with > 1% Incidence in Pooled, Placebo-Controlled Trials for Glabellar Lines

Adverse Reactions by Body System	DYSPO [®] (N=398) %*	Placebo (N=496) %*
Any Adverse Reaction	48	33
Eye Disorders		
Eyelid Edema	2	0
Eyelid Ptosis	2	<1
Gastrointestinal Disorders		
Nausea	2	1
General Disorders and Administration Site Conditions		
Injection Site Pain	3	2
Injection Site Reaction	3	<1
Infections and Infestations		
Nasopharyngitis	10	4
Upper Respiratory Tract Infection	3	2
Sinusitis	2	1
Investigations		
Blood Present in Urine	2	<1
Nervous System Disorders		
Headache	9	5

* Patients who received treatment with placebo and DYSPO[®] are counted in both treatment columns.

In the clinical trials safety database, where some patients received up to twelve treatments with DYSPO[®], adverse reactions were reported for 57% (1425/2491) of patients. The most frequently reported of these adverse reactions were headache, nasopharyngitis, injection site pain, sinusitis, URI, injection site bruising, and injection site reaction (numbness, discomfort, erythema, tenderness, tingling, itching, stinging, warmth, irritation, tightness, swelling).

Adverse reactions that occurred after repeated injections in 2–3% of the population included bronchitis, influenza, pharyngolaryngeal pain, cough, contact dermatitis, injection site swelling, and injection site discomfort.

The incidence of eyelid ptosis did not increase in the long-term safety studies with multiple re-treatments at intervals ≥ three months. The majority of the reports of eyelid ptosis were mild to moderate in severity and resolved over several weeks [see *Dosage and Administration (2.3)*].

Spasticity in Adults

Injection Site Reactions

Injection site reactions (e.g., pain, bruising, haemorrhage, erythema/haematoma etc.) have occurred following administration of DYSPO[®] in adults treated for spasticity.

Upper Limb Spasticity in Adults

Table 8 lists the most frequently reported adverse reactions (≥2%) in any DYSPO[®] dose group and more frequent than placebo in double-blind studies evaluating the treatment of upper limb spasticity in adults with DYSPO[®].

Table 8: Most Common Adverse Reactions Observed in at Least 2% of Patients Treated in Pooled, Double-Blind Trials of Adult Patients with Upper Limb Spasticity Reported More Frequently than with Placebo

Adverse Reactions	DYSPO [®]		Placebo (N=279) %
	500 Units (N=197) %	1000 Units (N=194) %	
Infections and infestations			
Nasopharyngitis	4	1	1
Urinary tract infection	3	1	2
Influenza	1	2	1
Infection	1	2	1
Musculoskeletal and connective tissue disorders			
Muscular weakness	2	4	1
Pain in extremity	0	2	1
Musculoskeletal pain	3	2	2
Back pain	1	2	1
Nervous system disorders			
Headache	1	2	1
Dizziness	3	1	1
Convulsion	2	2	1
Syncope	1	2	0
Hypoesthesia	0	2	<1
Partial seizures	0	2	0
General disorders and administration site conditions			
Fatigue	2	2	0
Asthenia	2	1	<1
Injury, poisoning and procedural complications			
Fall	2	3	2
Injury	2	2	1
Contusion	1	2	<1
Gastrointestinal disorders			
Diarrhea	1	2	<1
Nausea	2	1	1
Constipation	0	2	1
Investigation			
Blood triglycerides increased	2	1	0
Respiratory, thoracic and mediastinal disorders			
Cough	1	2	1
Vascular disorders			
Hypertension	1	2	<1
Psychiatric disorders			
Depression	2	3	1

Less Common Adverse Reactions

In a pooled analysis of clinical studies, adverse reactions with an incidence of less than 2% reported in DYSPO[®] treatment groups included dysphagia 0.5%, gait disturbance 0.5%, hypertension 0.5%, and sensation of heaviness 0.3%.

Lower Limb Spasticity in Adults

The data described below reflect exposure to DYSPO^{RT} in 255 adult patient with lower limb spasticity. Of this population, 89% were Caucasian, 66% male, and the median age was 55 years (range 23–77 years). Table 9 lists the adverse reactions that occurred in ≥2% of patients in any DYSPO^{RT} dose group and more frequent than placebo in the double blind study evaluating the treatment of lower limb spasticity in adults. The most common of these adverse reactions (≥5%) in any DYSPO^{RT} dose group were falls, muscular weakness, and pain in extremity.

Table 9: Adverse Reactions Observed in at Least 2% of Patients Treated in the Double-Blind Trial of Adult Patients with Lower Limb Spasticity and Reported More Frequently than with Placebo

Adverse Reactions	DYSPO ^{RT} 1000 U (N=127) %	DYSPO ^{RT} 1500 U (N=128) %	Placebo (N=130) %
Musculoskeletal and connective tissue disorders			
Muscular weakness	2	7	3
Pain in extremity	6	6	2
Arthralgia	4	2	1
Back pain	3	0	2
Injury, poisoning and procedural complications			
Fall	9	6	3
Contusion	2	0	0
Wrist fracture	2	0	0
Nervous system disorders			
Headache	0	3	1
Epilepsy/Convulsion/Partial seizure/Status Epilepticus	4	1	2
Infections and infestations			
Upper respiratory tract infection	2	1	1
General disorders and administration site conditions			
Fatigue	1	4	0
Asthenia	2	1	1
Influenza-like illness	2	0	0
Edema peripheral	2	0	0
Investigations			
Alanine aminotransferase increased	2	0	1
Gastrointestinal disorders			
Constipation	0	2	1
Dysphagia	2	1	1
Psychiatric disorders			
Depression	2	3	0
Insomnia	0	2	0
Vascular disorders			
Hypertension	2	1	1

In the efficacy and safety studies of DYSPO^{RT} for the treatment of lower limb spasticity in adults, muscular weakness was reported more frequently in women (10%) treated with 1500 units of DYSPO^{RT} compared to men (5%). Falls were reported more frequently in patients 65 years of age and over [see Use in Specific Populations (8.5)].

Lower Limb Spasticity in Pediatric Patients

Table 10 reflects exposure to DYSPO^{RT} in 160 patients, 2 to 17 years of age, who were evaluated in the randomized, placebo-controlled clinical study that assessed the use of DYSPO^{RT} for the treatment of unilateral or bilateral lower limb spasticity in pediatric cerebral palsy patients [see Clinical Studies (14.4)]. The most commonly observed adverse reactions (≥10% of patients) are: upper respiratory tract infection, nasopharyngitis, influenza, pharyngitis, cough and pyrexia.

Table 10: Adverse Reactions Observed in ≥ 4% of Patients Treated in the Double-Blind Trial of Pediatric Patients with Lower Limb Spasticity and Reported More Frequently than with Placebo

Adverse Reactions	Placebo (N=79) %	Unilateral		Bilateral	
		DYSPO ^{RT} 10 units/kg (N=43) %	DYSPO ^{RT} 15 units/kg (N=50) %	DYSPO ^{RT} 20 units/kg (N=37) %	DYSPO ^{RT} 30 units/kg (N=30) %
Infections and infestations					
Nasopharyngitis	5	9	12	16	10
Upper respiratory tract infection	13	9	20	5	10
Influenza	8	0	10	14	3
Pharyngitis	8	5	0	11	3
Bronchitis	3	0	0	8	7
Rhinitis	4	5	0	3	3
Varicella	1	5	0	5	0
Ear infection	3	2	4	0	0
Respiratory tract infection viral	0	5	2	0	0
Gastroenteritis viral	0	2	4	0	0

Table 10: Adverse Reactions Observed in ≥ 4% of Patients Treated in the Double-Blind Trial of Pediatric Patients with Lower Limb Spasticity and Reported More Frequently than with Placebo (cont'd)

Adverse Reactions	Placebo (N=79) %	Unilateral		Bilateral	
		DYSPO ^{RT} 10 units/kg (N=43) %	DYSPO ^{RT} 15 units/kg (N=50) %	DYSPO ^{RT} 20 units/kg (N=37) %	DYSPO ^{RT} 30 units/kg (N=30) %
Gastrointestinal disorders					
Vomiting	5	0	6	8	3
Nausea	1	0	2	5	0
Respiratory, thoracic and mediastinal disorders					
Cough	6	7	6	14	10
Oropharyngeal pain	0	2	4	0	0
General disorders and administration site conditions					
Pyrexia	5	7	12	8	7
Musculoskeletal and connective tissue disorders					
Pain in extremity	5	0	2	5	7
Muscular weakness	1	5	0	0	0
Nervous system disorders					
Convulsion/Epilepsy	0	7	4	0	7

6.2 Postmarketing Experience

Because adverse 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.

The following adverse reactions have been identified during post-approval use of DYSPO^{RT}: vertigo, photophobia, influenza-like illness, amyotrophy, burning sensation, facial paresis, hypoesthesia, erythema, dry eye, and excessive granulation tissue. Hypersensitivity reactions including anaphylaxis have been reported.

6.3 Immunogenicity

As with all therapeutic proteins, there is a potential for immunogenicity.

The incidence of antibody formation is highly dependent on the sensitivity and specificity of the assay. In addition, the observed incidence of antibody positivity in an assay may be influenced by several factors including assay methodology, sample handling, timing of sample collection, concomitant medications, and underlying disease. For these reasons, comparison of the incidence of antibodies across products in this class may be misleading.

Cervical Dystonia

About 3% of subjects developed antibodies (binding or neutralizing) over time with DYSPO^{RT} treatment.

Glabella Lines

Testing for antibodies to DYSPO^{RT} was performed for 1554 subjects who had up to nine cycles of treatment. Two subjects (0.13%) tested positive for binding antibodies at baseline. Three additional subjects tested positive for binding antibodies after receiving DYSPO^{RT} treatment. None of the subjects tested positive for neutralizing antibodies.

Spasticity in Adults

Upper Limb Spasticity

From 230 subjects treated with DYSPO^{RT} and tested for the presence of binding antibodies, 5 subjects were positive at baseline and 17 developed antibodies after treatment. Among those 17 subjects, 10 subjects developed neutralizing antibodies. An additional 51 subjects from a separate repeat-dose study were tested for the presence of neutralizing antibodies only. None of the subjects tested positive.

In total, from the 281 subjects treated in the long-term studies and tested for the presence of neutralizing antibodies, 3.6% developed neutralizing antibodies after treatment. In the presence of binding and neutralizing antibodies to DYSPO^{RT} some patients continue to experience clinical benefit.

Lower Limb Spasticity

From 367 subjects treated with DYSPO^{RT} and tested for the presence of binding antibodies, 4 subjects were positive at baseline and 2 developed binding antibodies after treatment. No subjects developed neutralizing antibodies. An additional 85 subjects from two separate studies were tested for the presence of neutralizing antibodies only. One subject tested positive for the presence of neutralizing antibodies.

In total, from the 452 subjects treated in with DYSPO^{RT} and tested for the presence of neutralizing antibodies, 0.2% developed neutralizing antibodies after treatment.

Lower Limb Spasticity in Pediatric Patients

From 226 subjects treated with DYSPO^{RT} and tested for the presence of binding antibodies, 5 subjects previously receiving botulinum toxins were positive at baseline and 9 patients developed binding antibodies after injections. Among those 9 subjects, 3 subjects developed neutralizing antibodies, while one subject developed neutralizing antibodies from the 5 subjects testing positive for binding antibodies at baseline who previously received botulinum toxin injections.

From a separate repeat-dose study, 203 subjects were tested for the presence of neutralizing antibodies. Two subjects were positive for neutralizing antibodies at baseline and 5 subjects developed neutralizing antibodies after treatments. In total, from the 429 patients tested for the presence of neutralizing antibodies, 2.1% developed neutralizing antibodies after treatment. In the presence of binding and neutralizing antibodies to DYSPO^{RT}, some patients continued to experience clinical benefit.

7 DRUG INTERACTIONS

No formal drug interaction studies have been conducted with DYSPO.

Patients treated concomitantly with botulinum toxins and aminoglycosides or other agents interfering with neuromuscular transmission (e.g., curare-like agents) should be observed closely because the effect of the botulinum toxin may be potentiated. Use of anticholinergic drugs after administration of DYSPO may potentiate systemic anticholinergic effects such as blurred vision.

The effect of administering different botulinum neurotoxin products at the same time or within several months of each other is unknown. Excessive weakness may be exacerbated by another administration of botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin.

Excessive weakness may also be exaggerated by administration of a muscle relaxant before or after administration of DYSPO.

8 USE IN SPECIFIC POPULATIONS**8.1 Pregnancy****Risk Summary**

There are no adequate and well-controlled clinical studies with DYSPO in pregnant women.

DYSPO should only be used during pregnancy if the potential benefit justifies the potential risk to the fetus.

DYSPO produced embryo-fetal toxicity in relation to maternal toxicity when given to pregnant rats and rabbits at doses lower than or similar to the maximum recommended human dose (MRHD) of 1000 Units on a body weight (Units/kg) basis (*see Data*).

In the U.S. general population, the estimated background risk of major birth defects and miscarriage in clinically recognized pregnancies is 2-4% and 15-20%, respectively. The background risk of major birth defects and miscarriage for the indicated populations is unknown.

Data

In a study in which pregnant rats received daily intramuscular injections of DYSPO (2.2, 6.6, or 22 Units/kg on gestation days 6 through 17 or intermittently 44 Units/kg on gestation days 6 and 12 only) during organogenesis, increased early embryonic death was observed with both schedules at the highest tested doses (22 and 44 Units/kg), which were associated with maternal toxicity. The no-effect dose for embryo-fetal developmental toxicity was 2.2 Units/kg (less than the maximum recommended human dose [MRHD] on a body weight basis).

In a study in which pregnant rabbits received daily intramuscular injections of DYSPO (0.3, 3.3, or 6.7 Units/kg) on gestation days 6 through 19 or intermittently (13.3 Units/kg on gestation days 6 and 13 only) during organogenesis, no embryofetal data were available at the highest dose administered daily (6.7 Units/kg) because of premature death in all does at that dose. At the lower daily doses or with intermittent dosing, no adverse developmental effects were observed. All doses for which data were available are less than the MRHD on a body weight basis.

In a study in which pregnant rats received 6 weekly intramuscular injections of DYSPO (4.4, 11.1, 22.2, or 44 Units/kg) beginning on day 6 of gestation and continuing through parturition to weaning, an increase in stillbirths was observed at the highest dose tested, which was maternally toxic. The no-effect dose for pre- and post-natal developmental toxicity was 22.2 Units/kg (similar to the MRHD).

8.2 Lactation**Risk Summary**

There are no data on the presence of DYSPO in human or animal milk, the effects on the breastfed infant, or the effects on milk production.

The developmental and health benefits of breastfeeding should be considered along with the mother's clinical need for DYSPO and any potential adverse effects on the breastfed infant from DYSPO or from the underlying maternal condition.

8.3 Females and Males of Reproductive Potential**Infertility**

In rats, DYSPO produced adverse effects on mating behavior and fertility [*see Carcinogenesis, Mutagenesis, Impairment of Fertility (13.1)*].

8.4 Pediatric Use**Cervical Dystonia**

Safety and effectiveness in pediatric patients have not been established [*see Warnings and Precautions (5.2)*].

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DYSPO is not recommended for use in pediatric patients less than 18 years of age.

Upper Limb Spasticity

Safety and effectiveness in pediatric patients have not been established [*see Warnings and Precautions (5.2)*].

Lower Limb Spasticity in Pediatric Patients

The safety and effectiveness of DYSPO injected into proximal muscles of the lower limb for the treatment of spasticity in pediatric patients has not been established [*see Warnings and Precautions (5.2) and Adverse Reactions (6.1)*].

Safety and effectiveness in pediatric patients with lower limb spasticity below 2 years of age have not been evaluated [*see Warnings and Precautions (5.2)*].

Juvenile Animal Data

In a study in which juvenile rats received a single intramuscular injection of DYSPO (1, 3, or 10 Units/animal) on postnatal day 21, decreased growth and bone length (injected and contralateral limbs), delayed sexual maturation, and decreased fertility were observed at the highest dose tested, which was associated with excessive toxicity during the first week after dosing.

In a study in which juvenile rats received weekly intramuscular injections of DYSPO (0.1, 0.3, or 1.0 Units/animal) from postnatal day 21 to 13 weeks of age, decreases in bone mineral content in

the injected limb, associated with atrophy of injected and adjacent muscles, were observed at the highest dose tested. No adverse effects were observed on neurobehavioral development. However, dose levels were not adjusted for growth of the pups. On a body weight basis, the doses at the end of the dosing period were approximately 15% of those at initiation of dosing. Therefore, the effects of DYSPO throughout postnatal development were not adequately evaluated.

8.5 Geriatric Use**Cervical Dystonia**

There were insufficient numbers of patients aged 65 years and over in the clinical studies to determine whether they respond differently than younger patients. In general, elderly patients should be observed to evaluate their tolerability of DYSPO, due to the greater frequency of concomitant disease and other drug therapy [*see Dosage and Administration (2.1)*].

Glabella^r Lines

Of the total number of subjects in the placebo-controlled clinical studies of DYSPO, 8 (1% were 65 years and over. Efficacy was not observed in subjects aged 65 years and over [*see Clinical Studies (14.2)*]. For the entire safety database of geriatric subjects, although there was no increase in the incidence of eyelid ptosis, geriatric subjects did have an increase in the number of ocular adverse reactions compared to younger subjects (11% vs. 5%) [*see Dosage and Administration (2.2)*].

Adult Spasticity**Upper Limb Spasticity**

Of the total number of subjects in placebo-controlled clinical studies of DYSPO, 30 percent were aged 65 years and over, while 8 percent were aged 75 years and over. No overall differences in safety or effectiveness were observed between these subjects and younger subjects. Other reported clinical experience has not identified differences in responses between the elderly and younger patients, but greater sensitivity of some older individuals cannot be ruled out.

Lower Limb Spasticity

Of the total number of subjects in placebo controlled clinical studies of DYSPO, 18% (n = 115) were 65 and over, while 3% (n = 20) were 75 and over. Subjects aged 65 years and over who were treated with DYSPO reported a greater percentage of adverse reactions as compared to younger subjects (46% versus 39%). Fall and asthenia were observed with greater frequency in older subjects, as compared to those younger (10% versus 6% and 4% versus 2%, respectively).

8.6 Ethnic Groups

Exploratory analyses in trials for glabella^r lines in African-American subjects with Fitzpatrick skin types IV, V, or VI and in Hispanic subjects suggested that response rates at Day 30 were comparable to and no worse than the overall population.

10 OVERDOSAGE

Excessive doses of DYSPO may be expected to produce neuromuscular weakness with a variety of symptoms. Respiratory support may be required where excessive doses cause paralysis of respiratory muscles. In the event of overdose, the patient should be medically monitored for symptoms of excessive muscle weakness or muscle paralysis [*see Warnings and Precautions (5.2)*]. Symptomatic treatment may be necessary.

Symptoms of overdose are likely not to be present immediately following injection. Should accidental injection or oral ingestion occur, the person should be medically supervised for several weeks for signs and symptoms of excessive muscle weakness or paralysis.

There is no significant information regarding overdose from clinical studies.

In the event of overdose, antitoxin raised against botulinum toxin is available from the Centers for Disease Control and Prevention (CDC) in Atlanta, GA. However, the antitoxin will not reverse any botulinum toxin-induced effects already apparent by the time of antitoxin administration. In the event of suspected or actual cases of botulinum toxin poisoning, please contact your local or state Health Department to process a request for antitoxin through the CDC. If you do not receive a response within 30 minutes, please contact the CDC directly at 770-488-7100. More information can be obtained at <http://www.cdc.gov/ncidod/srp/drugs/drug-service.html>.

11 DESCRIPTION

Botulinum toxin type A, the active ingredient in DYSPO (abobotulinumtoxinA), is a purified neurotoxin type A complex produced by fermentation of the bacterium *Clostridium botulinum* type A, Hall Strain. It is purified from the culture supernatant by a series of precipitation, dialysis, and chromatography steps. The neurotoxin complex is composed of the neurotoxin, hemagglutinin proteins and non-toxin non-hemagglutinin protein.

DYSPO is supplied in a single-use, sterile vial for reconstitution intended for intramuscular injection. Each vial contains 300 Units or 500 Units of lyophilized abobotulinumtoxinA, human serum albumin (125 mcg) and lactose (2.5 mg). DYSPO may contain trace amounts of cow's milk proteins [*see Contraindications (4) and Warnings and Precautions (5.3)*].

One unit of DYSPO corresponds to the calculated median lethal intraperitoneal dose (LD₅₀) in mice. The method for performing the assay is specific to Ipsen's product DYSPO. Due to differences in specific details such as vehicle, dilution scheme and laboratory protocols for various mouse LD₅₀ assays, Units of biological activity of DYSPO are not interchangeable with Units of any other botulinum toxin or any toxin assessed with any other specific assay method [*see Dosage Forms and Strengths (3)*].

12 CLINICAL PHARMACOLOGY**12.1 Mechanism of Action**

DYSPO inhibits release of the neurotransmitter, acetylcholine, from peripheral cholinergic nerve endings. Toxin activity occurs in the following sequence: Toxin heavy chain mediated binding to specific surface receptors on nerve endings, internalization of the toxin by receptor mediated endocytosis, pH-induced translocation of the toxin light chain to the cell cytosol and cleavage of SNAP25 leading to intracellular blockage of neurotransmitter exocytosis into the neuromuscular junction. This accounts for the therapeutic utility of the toxin in diseases characterized by excessive efferent activity in motor nerves.

Recovery of transmission occurs gradually as the neuromuscular junction recovers from SNAP25 cleavage and as new nerve endings are formed.

12.2 Pharmacodynamics

The primary pharmacodynamic effect of DYSPO is due to chemical denervation of the treated muscle resulting in a measurable decrease of the compound muscle action potential, causing a localized reduction of muscle activity.

12.3 Pharmacokinetics

Using currently available analytical technology, it is not possible to detect DYSPO in the peripheral blood following intramuscular injection at the recommended doses.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility

Carcinogenesis

Studies to evaluate the carcinogenic potential of DYSPO have not been conducted.

Mutagenesis

Genotoxicity studies have not been conducted for DYSPO.

Impairment of Fertility

In a fertility and early embryonic development study in rats in which either males (2.9, 7.2, 14.5 or 29 Units/kg) or females (7.4, 19.7, 39.4 or 78.8 Units/kg) received weekly intramuscular injections prior to and after mating, dose-related increases in pre-implantation loss and reduced numbers of corpora lutea were noted in treated females. Failure to mate was observed in males that received the high dose. The no-effect dose for effects on fertility was 7.4 Units/kg in females and 14.5 Units/kg in males (approximately one-half and equal to, respectively, the maximum recommended human dose of 1000 Units on a body weight basis).

14 CLINICAL STUDIES

14.1 Cervical Dystonia

The efficacy of DYSPO was evaluated in two randomized, double-blind, placebo-controlled, single dose, parallel-group studies in treatment-naïve cervical dystonia patients. The principal analyses from these trials provide the primary demonstration of efficacy involving 252 patients (121 on DYSPO, 131 on placebo) with 36% male and 64% female. Ninety-nine percent of the patients were Caucasian.

In both placebo-controlled studies (Study 1 and Study 2), a dose of 500 Units DYSPO was given by intramuscular injection divided among two to four affected muscles. These studies were followed by long-term open-label extensions that allowed titration in 250 Unit steps to doses in a range of 250 to 1000 Units, after the initial dose of 500 Units. In the extension studies, re-treatment was determined by clinical need after a minimum of 12 weeks. The median time to re-treatment was 14 weeks and 18 weeks for the 75th percentile.

The primary assessment of efficacy was based on the total Toronto Western Spasmodic Torticollis Rating Scale (TWSTRS) change from baseline at Week 4 for both studies. The scale evaluates the severity of dystonia, patient-perceived disability from dystonia, and pain. The adjusted mean change from baseline in the TWSTRS total score was statistically significantly greater for the DYSPO group than the placebo group at Weeks 4 in both studies (see Table 11).

Table 11: TWSTRS Total Score Efficacy Outcome from the Phase 3 Cervical Dystonia Studies Intent to Treat Population

	Study 1		Study 2	
	DYSPO 500 Units N=55	Placebo N=61	DYSPO 500 Units N=37	Placebo N=43
Baseline (week 0) Mean (SD)	43.8 (8.0)	45.8 (8.9)	45.1 (8.7)	46.2 (9.4)
Week 4 Mean (SD) Change from Baseline*	30.0 (12.7) -15.6 (2.0)	40.2 (11.8) -6.7 (2.0)	35.2 (13.8) -9.6 (2.0)	42.4 (12.2) -3.7 (1.8)
Treatment difference 95% confidence interval	-8.9 [‡] [-12.9 to -4.7]		-5.9 [‡] [-10.6 to -1.3]	
Week 8 Mean (SD) Change from Baseline*	29.3 (11.0) -14.7 (2.0)	39.6 (13.5) -5.9 (2.0)		
Treatment difference 95% confidence interval	-8.8 [‡] [-12.9 to -4.7]			

*Change from baseline is expressed as adjusted least squares mean (SE)

[‡]Significant at p-value < 0.05

Analyses by gender, weight, geographic region, underlying pain, cervical dystonia severity at baseline and history of treatment with botulinum toxin did not show any meaningful differences between groups.

Table 12 indicates the average DYSPO dose, and percentage of total dose, injected into specific muscles in the pivotal clinical trials.

Table 12: DYSPO 500 Units starting dose (units and % of the total dose) by Unilateral Muscle Injected During Double-blind Pivotal Phase 3 studies 2 and 1 Combined

Number of patients injected per muscle*		DYSPO Dose Injected		Percentage of the total DYSPO Dose Injected	
		Median [DYSPO Units] (min, max)	75th percentile [DYSPO Units]	Median [%] (min, max)	75th percentile [%]
Sternocleidomastoid	90	125 Units (50, 350)	150 Units	26.5 % (10, 70)	30.0 %
Splenius capitis	85	200 Units (75, 450)	250 Units	40.0 % (15, 90)	50.0 %
Trapezius	50	102.6 Units (50, 300)	150 Units	20.6 % (10, 60)	30.0 %
Levator scapulae	35	105.3 Units (50, 200)	125 Units	21.1 % (10, 40)	25.0 %
Scalenus (medius and anterior)	26	115.5 Units (50, 300)	150 Units	23.1 % (10, 60)	30.0 %
Semispinalis capitis	21	131.6 Units (50, 250)	175 Units	29.4 % (10, 50)	35.0 %
Longissimus	3	150 Units (100, 200)	200 Units	30.0 % (20, 40)	40.0 %

*Total number of patients in combined studies 2 and 1 who received initial treatment = 121.

14.2 Glabellar Lines

Three double-blind, randomized, placebo-controlled, clinical studies evaluated the efficacy of DYSPO for use in the temporary improvement of the appearance of moderate to severe glabellar lines. These three studies enrolled healthy adults (ages 19-75) with glabellar lines of at least moderate severity at maximum frown. Subjects were excluded if they had marked ptosis, deep dermal scarring, or a substantial inability to lessen glabellar lines, even by physically spreading them apart. The subjects in these studies received either DYSPO or placebo. The total dose was delivered in equally divided aliquots to specified injection sites (see Figure 1).

Investigators and subjects assessed efficacy at maximum frown by using a 4-point scale (none, mild, moderate, severe).

Overall treatment success was defined as post-treatment glabellar line severity of none or mild with at least 2 grade improvement from Baseline for the combined investigator and subject assessments (composite assessment) on Day 30 (see Table 13). Additional endpoints for each of the studies were post-treatment glabellar line severity of none or mild with at least a 1 grade improvement from Baseline for the separate investigator and subject assessments on Day 30.

After completion of the randomized studies, subjects were offered participation in a two-year, open-label re-treatment study to assess the safety of multiple treatments.

Table 13: Treatment Success at Day 30 (None or Mild with at least 2 Grade Improvement from Baseline at Maximum Frown for the combined Investigator and Subject Assessments (Composite))

Study	2 Grade Improvement	
	DYSPO n/N (%)	Placebo n/N (%)
GL-1	58/105 (55%)	0/53 (0%)
GL-2	37/71 (52%)	0/71 (0%)
GL-3	120/200 (60%)	0/100 (0%)

Treatment with DYSPO reduced the severity of glabellar lines for up to four months.

Study GL-1

Study GL-1 was a single-dose, double-blind, multi-center, randomized, placebo-controlled study in which 158 previously untreated subjects received either placebo or 50 Units of DYSPO, administered in five aliquots of 10 Units (see Figure 1). Subjects were followed for 180 days. The mean age was 43 years; most of the subjects were women (85%), and predominantly Caucasian (49%) or Hispanic (47%). At Day 30, 55% of DYSPO-treated subjects achieved treatment success: a composite 2 grade improvement of glabellar line severity at maximum frown (see Table 13).

In study GL-1, the reduction of glabellar line severity at maximum frown was greater at Day 30 in the DYSPO group compared to the placebo group as assessed by both Investigators and subjects (see Table 14).

Table 14: GL-1: Investigator's and Subject's Assessment of Glabellar Line Severity at Maximum Frown Using a 4-point Scale (% and Number of Subjects with Severity of None or Mild)

Day	Investigator's Assessment		Subject's Assessment	
	DYSPO [®] N=105	Placebo N=53	DYSPO [®] N=105	Placebo N=53
14	90% 95	17% 9	77% 81	9% 5
30	88% 92	4% 2	74% 78	9% 5
60	64% 67	2% 1	60% 63	6% 3
90	43% 45	6% 3	36% 38	6% 3
120	23% 24	4% 2	19% 20	6% 3
150	9% 9	2% 1	8% 8	4% 2
180	6% 6	0% 0	7% 7	8% 4

Study GL-2

Study GL-2 was a repeat-dose, double-blind, multi-center, placebo-controlled, randomized study. The study was initiated with two or three open-label treatment cycles of 50 Units of DYSPO[®] administered in five aliquots of 10 Units DYSPO[®] (see Figure 1). After the open-label treatments, subjects were randomized to receive either placebo or 50 Units of DYSPO[®]. Subjects could have received up to four treatments through the course of the study. Efficacy was assessed in the final randomized treatment cycle. The study enrolled 311 subjects into the first treatment cycle and 142 subjects were randomized into the final treatment cycle. Overall, the mean age was 47 years; most of the subjects were women (86%) and predominantly Caucasian (80%).

At Day 30, 52% of DYSPO[®]-treated subjects achieved treatment success: a composite 2 grade improvement of glabellar line severity at maximum frown (see Table 13).

The proportion of responders in the final treatment cycle was comparable to the proportion of responders in all prior treatment cycles.

After the final repeat treatment with DYSPO[®], the reduction of glabellar line severity at maximum frown was greater at Day 30 in the DYSPO[®] group compared to the placebo group as assessed by both Investigators and subjects (see Table 15).

Table 15: GL-2: Investigator's and Subject's Assessments of Glabellar Line Severity at Maximum Frown Using a 4-point Scale (% and Number of Subjects with Severity of None or Mild)

Day	Investigator's Assessment		Subject's Assessment	
	DYSPO [®] N=71	Placebo N=71	DYSPO [®] N=71	Placebo N=71
30	85% 60	4% 3	79% 56	1% 1

Study GL-3

Study GL-3 was a single-dose, double-blind, multi-center, randomized, placebo-controlled study in which 300 previously untreated subjects received either placebo or 50 Units of DYSPO[®], administered in five aliquots of 10 Units (see Figure 1). Subjects were followed for 150 days. The mean age was 44 years; most of the subjects were women (87%), and predominantly Caucasian (75%) or Hispanic (18%).

At Day 30, 60% of DYSPO[®]-treated subjects achieved treatment success: a composite 2 grade improvement of glabellar line severity at maximum frown (see Table 16).

In study GL-3, the reduction of glabellar line severity at maximum frown was greater at Day 30 in the DYSPO[®] group compared to the placebo group as assessed by both Investigators and subjects (see Table 16).

Table 16: GL-3: Investigator's and Subject's Assessment of Glabellar Line Severity at Maximum Frown Using a 4-point Scale (% and Number of Subjects with Severity of None or Mild)

Day	Investigator's Assessment		Subject's Assessment	
	DYSPO [®] N=200	Placebo N=100	DYSPO [®] N=200	Placebo N=100
14	83% 166	5% 5	83% 165	2% 2
30	86% 171	0% 0	82% 163	2% 2
60	75% 150	1% 1	65% 130	4% 4
90	51% 102	1% 1	46% 91	2% 2
120	29% 58	1% 1	31% 61	3% 3
150	16% 32	1% 1	16% 31	3% 3

Geriatric Subjects

In GL1, GL2, and GL3, there were 8 subjects aged 65 and older who were randomized to DYSPO[®] 50 Units in 5 equal aliquots of 10 Units (4) or placebo (4). None of the geriatric DYSPO[®] subjects were a treatment success at maximum frown at Day 30.

14.3 Spasticity in Adults

Upper Limb Spasticity

The efficacy and safety of DYSPO[®] for the treatment of upper limb spasticity in adult patients was evaluated in a randomized, multi-center, double-blind, placebo-controlled study that included 238 patients (159 DYSPO[®] and 79 placebo) with upper limb spasticity (Modified Ashworth Scale (MAS) score ≥2 in the primary targeted muscle group for toxin naive patients or MAS score ≥3 in the primary targeted muscle group for toxin non-naive patients at least 4 months after the last botulinum toxin injection, of any serotype) who were at least 6 months post-stroke or post-traumatic brain injury.

DYSPO[®] 500 Units (N=80), DYSPO[®] 1000 Units (N=79), or placebo (N=79) was injected intramuscularly into the affected upper limb muscles. After injection of the primary targeted muscle groups (PTMG), the remainder of the dose was injected into at least two additional upper limb muscles determined by the patient's individual presentation. Table 17 provides the mean and range of DYSPO[®] doses injected and the number of injections into specific muscles of the upper limb.

Table 17: DYSPO[®] Dose Injected and Number of Injections per Muscle in Adult Patients with Upper Limb Spasticity

Muscle	DYSPO [®] Treatment Group	Number of Patients	Mean DYSPO [®] Units Injected (Min, Max)	Number of Injection Sites Median, [Q1 ; Q3]
Flexor digitorum profundus (FDP)*	500 U	54	93.5 Units (50 to 100)	1, [1 ; 2]
	1000 U	65	195.5 Units (100 to 300)	2, [1 ; 2]
Flexor digitorum superficialis (FDS)*	500 U	63	95.4 Units (50 to 100)	2, [1 ; 2]
	1000 U	73	196.8 Units (100 to 300)	2, [1 ; 2]
Flexor carpi radialis (FCR)*	500 U	57	92.2 Units (25 to 100)	1, [1 ; 2]
	1000 U	57	178.1 Units (80 to 300)	1, [1 ; 2]
Flexor carpi ulnaris (FCU)*	500 U	47	89.9 Units (25 to 180)	1, [1 ; 2]
	1000 U	49	171.2 Units (80 to 200)	1, [1 ; 2]
Brachialis*	500 U	60	148.5 Units (50 to 200)	2, [1 ; 2]
	1000 U	43	321.4 Units (100 to 400)	2, [2 ; 2]
Brachioradialis*	500 U	42	88.3 Units (50 to 200)	1, [1 ; 2]
	1000 U	28	172.1 Units (50 to 200)	1, [1 ; 2]
Biceps Brachii (BB)	500 U	28	106.4 Units (50 to 200)	2, [1 ; 2]
	1000 U	19	207.4 Units (100 to 400)	2, [1 ; 2]
Pronator Teres	500 U	14	81.8 Units (45 to 200)	1, [1 ; 1]
	1000 U	30	157.3 Units (80 to 200)	1, [1 ; 1]

*PTMG

The co-primary efficacy variables were muscle tone assessed by the MAS at the primary targeted muscle group at week 4 and the Physician Global Assessment (PGA) at week 4 (see Table 18).

Table 18: Primary Endpoints (PTMG MAS and PGA) and MAS by Muscle Group at Week 4 in Adult Patients with Upper Limb Spasticity

	Placebo (N=79)	DYSPO [®]	
		(500 units) (N=80)	(1000 units) (N=79)
LS Mean Change from Baseline in PTMG Muscle Tone on the MAS	-0.3	-1.2*	-1.4*
LS Mean PGA of Response to Treatment	0.7	1.4*	1.8*
LS Mean Change from Baseline in Wrist Flexor Muscle Tone on the MAS	-0.3 (n=54)	-1.4 (n=57)	-1.6 (n=58)
LS Mean Change from Baseline in Finger Flexor Muscle Tone on the MAS	-0.3 (n=70)	-0.9 (n=66)	-1.2 (n=73)
LS Mean Change from Baseline in Elbow Flexor Muscle Tone on the MAS	-0.3 (n=56)	-1.0 (n=61)	-1.2 (n=48)

LS= Least Square;

*p<0.05

Lower Limb Spasticity

The efficacy of DYSPO[®] for the treatment of lower limb spasticity was evaluated in a randomized, multi-center, double-blind, placebo-controlled study that included 381 patients (253 DYSPO[®] and 128 placebo). Patients had lower limb spasticity (Modified Ashworth Scale (MAS) score ≥2 in the affected ankle joint for toxin naive patients, or MAS score ≥3 in the affected ankle joint for toxin non-naive patients) and were at least 6 months post-stroke or post-traumatic brain injury.

Table 19 provides the median DYSPO[®] doses injected and the number of injections into specific muscles of the lower limb as reported in the double-blind study. In the study, the gastrocnemius and soleus muscles, and at least one additional lower limb muscle were injected, according to the clinical presentation.

Table 19: DYSPO Dose Injected and Number of Injections per Muscle in the Lower Limb - Median for the 1000 Unit and 1500 Unit Dose Groups

Injected Muscle	DYSPO Units Injected	Number of Injection Sites
Gastrocnemius <i>Lateral</i>	100 Units to 150 Units	1
<i>Medial</i>	100 Units to 150 Units	1
Soleus	333 Units to 500 Units	3
Tibialis posterior	200 Units to 300 Units	2
Flexor digitorum longus	133 Units to 200 Units	1 to 2
Flexor hallucis longus	67 Units to 200 Units	1

The primary efficacy variable was muscle tone assessed by the MAS at the ankle joint at week 4. The first secondary endpoint was the Physician Global Assessment (ranges from -4 = markedly worse to +4 = markedly improved) at week 4 (see Table 20).

Table 20: Primary Endpoint Change in MAS and the First Secondary Endpoint PGA at Week 4 in Adult Patients with Lower Limb Spasticity

LS Mean Change from Baseline on the Modified Ashworth Scale	DYSPO 1000 Units (N=125)	DYSPO 1500 Units (N=128)	Placebo (N=128)
Week 4	-0.6	-0.8*	-0.5
LS Mean Physician Global Assessment			
Week 4	0.9	0.9	0.7

*P<0.05

14.4 Pediatric Patients with Lower Limb Spasticity

The efficacy of DYSPO was evaluated in a double-blind, placebo-controlled multi-center study in patients 2 to 17 years of age treated for lower limb spasticity because of cerebral palsy causing dynamic equinus foot deformity. A total of 235 (158 DYSPO and 77 Placebo) toxin naïve or non-naïve patients with a Modified Ashworth Score (MAS) of grade 2 or greater at the ankle plantar flexor were enrolled to receive DYSPO 10 Units/kg/leg (n=79), DYSPO 15 Units/kg/leg (n=79) or placebo (n=77) injected into the gastrocnemius and soleus muscles. Forty one percent of patients (n=66) were treated bilaterally and received a total lower limb DYSPO dose of either 20 Units/kg (n=37) or 30 Units/kg (n=29). The primary efficacy endpoint was the mean change from baseline in MAS in ankle plantar flexor at Week 4; a co-primary endpoint was the mean Physician's Global Assessment (PGA) score at Week 4 (see Table 21).

Table 21: MAS and PGA Change from Baseline at Week 4 in Pediatric Patients with Lower Limb Spasticity (ITT Population)

		Placebo (N=77)	DYSPO 10 U/kg/leg (N=79)	DYSPO 15 U/kg/leg (N=79)
LS Mean Change from Baseline in Ankle plantarflexor Muscle Tone on the MAS	Week 4	-0.5	-0.9*	-1.0*
	Week 12	-0.5	-0.8*	-1.0*
LS Mean PGA of Response to Treatment	Week 4	0.7	1.5*	1.5*
	Week 12	0.4	0.8*	1.0*

LS=Least Square

*p<0.05

16 HOW SUPPLIED/STORAGE AND HANDLING

DYSPO for Injection is supplied in a sterile, single-use, glass vial. Unopened vials of DYSPO must be stored under refrigeration at 2° to 8°C (36°F to 46°F). Protect from light.

Do not use after the expiration date on the vial. All vials, including expired vials, or equipment used with DYSPO should be disposed of carefully as is done with all medical waste.

DYSPO contains a unique hologram on the carton. If you do not see the hologram, do not use the product. Instead contact 855-463-5127.

Cervical Dystonia, Spasticity in Adults, and Lower Limb Spasticity in Pediatric Patients

500 Unit Vial

Each vial contains 500 Units of freeze-dried abobotulinumtoxinA.

Box containing 1 vial—NDC 15054-0500-1

Box containing 2 vials—NDC 15054-0500-2

300 Unit Vial

Each vial contains 300 Units of freeze-dried abobotulinumtoxinA.

Box containing 1 vial—NDC 15054-0530-6

Glabellar Lines

Each vial contains 300 Units of freeze-dried abobotulinumtoxinA.

Box containing 1 vial— NDC 0299-5962-30

17 PATIENT COUNSELING INFORMATION

Advise the patient to read the FDA-approved patient labelling (Medication Guide).

Advise patients to inform their doctor or pharmacist if they develop any unusual symptoms (including difficulty with swallowing, speaking or breathing), or if any known symptom persists or worsens.

Inform patients that DYSPO injection may cause eye dryness. Advise patients to report symptoms of eye dryness (e.g., eye pain, eye irritation, photosensitivity, or changes in vision) to their doctor.

Inform patients that if loss of strength, muscle weakness, blurred vision or drooping eyelids occur, they should avoid driving a car or engaging in other potentially hazardous activities.

Manufactured by:

Ipsen Biopharm Ltd., Wrexham, LL13 9UF, UK

U.S. License No. 1787

Distributed by:

Ipsen Biopharmaceuticals, Inc., Basking Ridge, NJ 07920

and

Galderma Laboratories, L.P., Fort Worth, TX 76177 USA

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DYS-US-003463

MEDICATION GUIDE
DYSPO[®] (DIS-port)
(abobotulinumtoxinA)
for Injection

What is the most important information I should know about DYSPO?

DYSPO may cause serious side effects that can be life threatening including:

- **Problems breathing or swallowing**
- **Spread of toxin effects**

These problems can happen within hours, or days to weeks after an injection of DYSPO. Call your doctor or get medical help right away if you have any of these problems after treatment with DYSPO:

1. Problems swallowing, speaking, or breathing. These problems can happen within hours, or days to weeks after an injection of DYSPO usually because the muscles that you use to breathe and swallow can become weak after the injection. Death can happen as a complication if you have severe problems with swallowing or breathing after treatment with DYSPO.

- People with certain breathing problems may need to use muscles in their neck to help them breathe. These patients may be at greater risk for serious breathing problems with DYSPO.
- Swallowing problems may last for several weeks. People who cannot swallow well may need a feeding tube to receive food and water. If swallowing problems are severe, food or liquids may go into your lungs. People who already have swallowing or breathing problems before receiving DYSPO have the highest risk of getting these problems.

2. Spread of toxin effects. In some cases, the effect of botulinum toxin may affect areas of the body away from the injection site and cause symptoms of a serious condition called botulism.

The symptoms of botulism include:

- loss of strength and muscle weakness all over the body
- blurred vision and drooping eyelids
- trouble saying words clearly (dysarthria)
- trouble breathing
- double vision
- hoarseness or change or loss of voice (dysphonia)
- loss of bladder control
- trouble swallowing

These symptoms can happen within hours, or days to weeks after you receive an injection of DYSPO. These problems could make it unsafe for you to drive a car or do other dangerous activities. See "What should I avoid while receiving DYSPO?"

What is DYSPO?

DYSPO is a prescription medicine that is injected into muscles and used:

- to treat cervical dystonia (CD) in adults
- to improve the look of moderate to severe frown lines between the eyebrows (glabellar lines) in adults younger than 65 years of age for a short period of time (temporary)
- to treat increased muscle stiffness in adults with spasticity
- to treat increased muscle stiffness in children 2 years of age and older with lower limb spasticity.

CD is caused by muscle spasms in the neck. These spasms cause abnormal position of the head and often neck pain. After DYSPO is injected into muscles; those muscles are weakened for up to 12 to 16 weeks or longer. This may help lessen your symptoms.

Frown lines (wrinkles) happen because the muscles that control facial expression are used often (muscle tightening over and over). After DYSPO is injected into the muscles that control facial expression, the medicine stops the tightening of these muscles for up to 4 months.

Upper limb spasticity in adults is caused by muscle spasms in the elbow, wrist, and finger muscles. Lower limb spasticity in adults is caused by muscle spasms in the toe and ankle muscles. These spasms cause an abnormal position of these muscles. After DYSPO is injected into muscles, those muscles are weakened for up to 12 to 16 weeks or longer. This may help lessen your symptoms.

Lower limb spasticity in children is caused by muscle spasms in calf muscles. These spasms cause an abnormal position of these muscles. After DYSPO is injected into muscles, those muscles are weakened for up to 16 to 22 weeks or longer. This may help lessen your symptoms.

- For the treatment of cervical dystonia, glabellar lines, and upper limb spasticity in adults, it is not known whether DYSPO is safe or effective in children under 18 years of age.
- For the treatment of lower limb spasticity, it is not known whether DYSPO is safe or effective in children under 2 years of age.
- It is not known whether DYSPO is safe or effective for the treatment of other types of muscle spasms.
- It is not known whether DYSPO is safe or effective for the treatment of other wrinkles.

Who should not take DYSPO?

Do not take DYSPO if you:

- are allergic to DYSPO or any of the ingredients in DYSPO. See the end of this Medication Guide for a list of ingredients in DYSPO
- are allergic to cow's milk protein
- had an allergic reaction to any other botulinum toxin product such as Myobloc[®] (rimabotulinumtoxinB), Botox[®] (onabotulinumtoxinA), or Xeomin[®] (incobotulinumtoxinA).
- have a skin infection at the planned injection site

What should I tell my doctor before taking DYSPO?

Tell your doctor about all your medical conditions, including if you:

- have a disease that affects your muscles and nerves (such as amyotrophic lateral sclerosis [ALS or Lou Gehrig's disease], myasthenia gravis or Lambert-Eaton syndrome). See "What is the most important information I should know about DYSPO?"
- have allergies to any botulinum toxin product
- had any side effect from any botulinum toxin product in the past
- have or have had a breathing problem, such as asthma or emphysema
- have or have had swallowing problems
- have or have had bleeding problems
- have diabetes
- have or have had a slow heart beat or other problem with your heart rate or rhythm
- have plans to have surgery
- had surgery on your face
- have weakness of your forehead muscles (such as trouble raising your eyebrows)
- have drooping eyelids
- experienced dry eye with previous use of botulinum toxin products
- have any other change in the way your face normally looks
- are pregnant or plan to become pregnant. It is not known if DYSPO can harm your unborn baby
- are breast-feeding or planning to breast-feed. It is not known if DYSPO passes into breast milk

Tell your doctor about all the medicines you take, including prescription and over-the-counter medicines, vitamins and herbal products. Using DYSPO with certain other medicines may cause serious side effects. **Do not start any new medicines until you have told your doctor that you have received DYSPO in the past.**

Especially tell your doctor if you:

- have received any other botulinum toxin product in the last four months
- have received injections of botulinum toxin, such as Myobloc[®] (rimabotulinumtoxinB), Botox[®] (onabotulinumtoxinA) or Xeomin[®] (incobotulinumtoxinA) in the past; be sure your doctor knows exactly which product you received
- have recently received an antibiotic by injection
- take muscle relaxants
- take an allergy or cold medicine
- take a sleep medicine

Ask your doctor if you are not sure if your medicine is one that is listed above.

Know the medicines you take. Keep a list of your medicines with you to show your doctor and pharmacist each time you get a new medicine.

How should I take DYSPO?

- DYSPO is an injection that your doctor will give you
- DYSPO is injected into the affected muscles
- If you are an adult, your doctor may give you another dose of DYSPO after 12 weeks or longer, if it is needed
- If you are an adult being treated for CD or spasticity or you are a child (2 to 17 years of age) being treated for lower limb spasticity, your doctor may change your dose of DYSPO, until you and your doctor find the best dose for you. Children should not be retreated sooner than every 12 weeks.
- The dose of DYSPO is not the same as the dose of any other botulinum toxin product

What should I avoid while taking DYSPO?

DYSPO may cause loss of strength or general muscle weakness, blurred vision, or drooping eyelids within hours to weeks of taking DYSPO. **If this happens, do not drive a car, operate machinery, or do other dangerous activities. See "What is the most important information I should know about DYSPO?"**

What are the possible side effects of DYSPO?

DYSPO can cause serious side effects. See "What is the most important information I should know about DYSPO?"

The most common side effects of DYSPO in people with cervical dystonia include:

- muscle weakness
- dry mouth
- feeling of tiredness
- muscle pain
- problems speaking
- eye problems
- difficulty swallowing
- headache

The most common side effects of DYSPO in people with glabellar lines include:

- stuffy or runny nose and sore throat
- injection site pain
- upper respiratory infection
- blood in urine
- headache
- injection site reaction
- swelling of eyelids
- drooping eyelids
- sinus infection
- nausea

The most common side effects of DYSPO in adults with upper limb spasticity include:

- urinary tract infection
- muscle weakness
- musculoskeletal pain
- fall
- depression
- stuffy or runny nose and sore throat
- dizziness

The most common side effects of DYSPO in adults with lower limb spasticity include:

- muscle weakness
- pain in your arms or legs
- fall

The most common side effects of DYSPO in children (2 to 17 years of age) with lower limb spasticity include:

- upper respiratory infection
- stuffy or runny nose and sore throat
- flu
- cough
- fever

Tell your doctor if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of DYSPO. For more information, ask your doctor or pharmacist.

Tell your doctor if you have dry eye or changes in vision following use of DYSPO.

Call your doctor for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

General information about DYSPO:

Medicines are sometimes prescribed for purposes other than those listed in a Medication Guide.

This Medication Guide summarizes the most important information about DYSPO. If you would like more information, talk with your doctor. You can ask your doctor or pharmacist for information about DYSPO that is written for healthcare professionals.

What are the ingredients in DYSPO?

Active ingredient: (botulinum toxin Type A)

Inactive ingredients: human albumin and lactose. DYSPO may contain cow's milk protein.

Distributed by: Ipsen Biopharmaceuticals, Inc. Basking Ridge, NJ 07920 and Galderma Laboratories, L.P. Fort Worth, TX 76177;

Manufactured by: Ipsen Biopharm Ltd., Wrexham, LL13 9UF, UK
U.S. License No. 1787

For more information about DYSPO, call 855-463-5127 or go to www.dysport.com or www.DysportUSA.com.

This Medication Guide has been approved by the U.S. Food and Drug Administration.

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