#### **CERVICAL DYSTONIA PATIENT PROFILE**



#### **AGE:** 74

#### **HISTORY:**

- Diagnosed with cervical dystonia 10 years ago
- Previously experienced symptom relief with botulinum toxin-A (BoNT-A) injections, but recently his pain has been returning sooner following each injection
- Currently noticing more tightness in his neck and feeling less mobile

#### **EXAMINATION:**

- Marked laterocollis interfering with daily activities
- Reports of discomfort have increased over past 3 visits;
   symptoms are returning sooner after receiving BoNT-A injections
- No abnormalities detected in lab analysis and imaging tests

#### **DIAGNOSIS:**

Cervical dystonia (CD), suspected resistance to botulinum toxin-A

## Do you have adult patients like Jim in your practice?



\*This is not a real patient. This representation was not designed to reflect efficacy for an individual patient subgroup. Individual results may vary.

#### **INDICATIONS**

MYOBLOC® injection is indicated for the treatment of cervical dystonia (CD) to reduce the severity of abnormal head position and neck pain associated with CD in adults

#### **IMPORTANT SAFETY INFORMATION**

#### **WARNING: DISTANT SPREAD OF TOXIN EFFECT**

See full prescribing information for complete boxed WARNING.

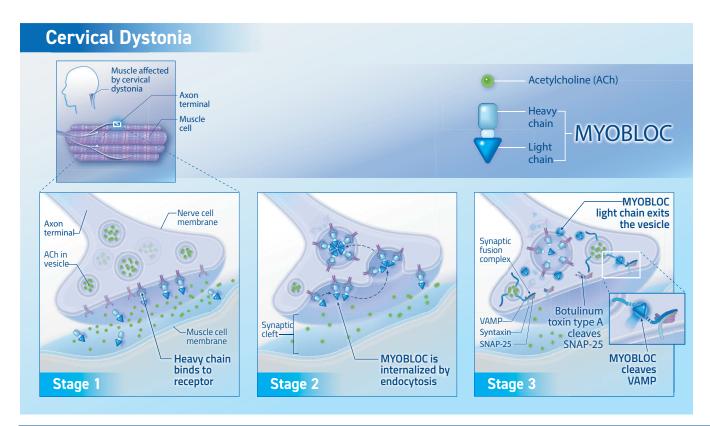
The effects of MYOBLOC® and all botulinum toxin products may spread from the area of injection to produce symptoms consistent with botulinum toxin effects. These symptoms have been reported hours to weeks after injection. Swallowing and breathing difficulties can be life threatening and there have been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



## MY Focus: To find a botulinum toxin injection to help patients like Jim



## MYOBLOC HAS A DISTINCT MECHANISM OF ACTION<sup>1</sup>



- **Stage 1:** MYOBLOC binds to receptors on the neuronal surface via the heavy chain.
- **Stage 2:** MYOBLOC enters the nerve cell via endocytosis and is contained in vesicles.
- **Stage 3:** MYOBLOC light chain moves to the cytosol where it cleaves synaptic vesicle-associated membrane protein (VAMP)\* essential for ACh release.
  - \*VAMP is a component of the protein complex responsible for docking and fusion of the synaptic vesicle to the presynaptic membrane, a necessary step in neurotransmitter release.

For CD, blocking ACh release will inhibit muscle contraction and allow the injected muscle to assume a more normal tone<sup>1</sup>

## IMPORTANT SAFETY INFORMATION (cont'd) CONTRAINDICATIONS

MYOBLOC is contraindicated in patients with:

- A known hypersensitivity to any botulinum toxin product or to any of the components in the formulation
- Infection at the proposed injection site(s)

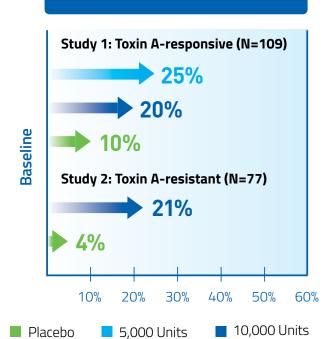


## MY Goal: A treatment that works for Jim and similar patients in my practice



## SIGNIFICANT IMPROVEMENT OF TWSTRS-TOTAL SCORE AT WEEK 41-3

## TWSTRS-total scores: % improvement from baseline at Week 4



**At Week 4** in both Toxin A-responsive and Toxin A-resistant patients, MYOBLOC significantly improved TWSTRS-total score:

 Mean change from baseline was 4.3 and 2 for placebo (Study 1 and Study 2, respectively);
 9.3\* for 5,000 U (Study 1), and 11.7\* and 11.1\* for 10,000 U (Study 1 and Study 2, respectively)

## TWSTRS-pain

- MYOBLOC provided significant pain reduction for both Toxin A-responsive and Toxin A-resistant patients at Week 4 (tertiary endpoint)
- In an exploratory analysis, MYOBLOC showed reduction of TWSTRS-pain score for both Toxin A-responsive and Toxin A-resistant patients at Week 2

\**P*<0.05 vs. placebo.

Study 1 was a randomized, double-blind, multicenter, placebo-controlled, 16-week trial to determine the safety and efficacy of MYOBLOC in patients with CD who were responsive to Toxin Type A; 109 patients enrolled across 3 dose arms: MYOBLOC 5,000 U (n=36) or 10,000 U (n=37) vs. placebo (n=36). Study 2 was a randomized, double-blind, multicenter, placebo-controlled, 16-week trial to determine the safety and efficacy of MYOBLOC in patients with CD who were resistant to Toxin Type A; 77 patients enrolled across 2 dose arms: MYOBLOC 10,000 U (n=39) vs. placebo (n=36).

Abbreviation: TWSTRS, Toronto Western Spasmodic Torticollis Rating Scale.

## **DEMONSTRATED TOLERABILITY**<sup>1</sup>

Most commonly reported adverse reactions in >5% of MYOBLOC-treated patients at any dose and >5% more common than placebo (Studies 1, 2, and 4)<sup>1</sup>

Adverse Reaction	MYOBLOC (%)			PLACEBO (%)
	2,500 Units (N=31)	5,000 Units (N=67)	10,000 Units (N=106)	(N=104)
Dry mouth	3	12	34	3
Dysphagia	16	10	25	3
Injection-site pain	16	12	15	9
Headache	10	16	11	8

Study 4 was a randomized, double-blind, multicenter, placebo-controlled, 16-week trial to determine the safety and efficacy of MYOBLOC in both Toxin A-responsive and Toxin A-resistant patients with CD; 122 patients enrolled across 4 dose arms: 2,500 U (n=31), 5,000 U (n=31), or 10,000 U (n=30) vs. placebo (n=30).

## IMPORTANT SAFETY INFORMATION (cont'd) WARNINGS AND PRECAUTIONS

### Hypersensitivity Reactions

Serious hypersensitivity reactions have been reported with botulinum toxin products. Angioedema, urticaria, and rash have occurred with MYOBLOC treatment. Hypersensitivity reactions can also include anaphylaxis, serum sickness, soft tissue edema, and dyspnea. If serious and/or immediate hypersensitivity reactions occur, discontinue further injection of MYOBLOC and institute appropriate medical therapy immediately. The use of MYOBLOC in patients with a known hypersensitivity to any botulinum neurotoxin or to any of the excipients (human albumin, sucrose), could lead to a life-threatening allergic reaction.



## MY Criteria: Flexible dosing and comprehensive injection training



## DOSING AND ADMINISTRATION

## READY TO USE AND REQUIRES NO MIXING<sup>1</sup>

## **Dosing Considerations**

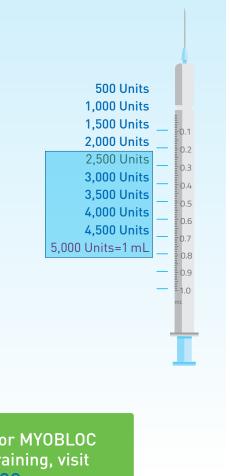
- Cervical dystonia symptom severity
- Risk of swallowing or breathing difficulties in patients with neuromuscular disorders<sup>1</sup>
- Patient weight and muscle bulk

### **Dosing Recommendations**

Recommended initial total dose divided among affected muscles<sup>1</sup>:

- Patients with a prior history of tolerating botulinum toxin injections is 2,500 to 5,000 Units
- Patients without a prior history of tolerating botulinum toxin injections should receive a lower initial dose
- Subsequent dosing should be optimized according to the patient's response





To sign up for MYOBLOC injection training, visit MYOBLOC.com.

\*For single-patient use.

## IMPORTANT SAFETY INFORMATION (cont'd) WARNINGS AND PRECAUTIONS (cont'd)

Lack of Interchangeability Between Botulinum Toxin Products

The potency units of MYOBLOC are specific to the preparation and biological activity assay method utilized. Due to differences in the aspects of this assay such as the vehicle, dilution scheme, and laboratory protocols for various potency assays, potency units are not interchangeable with other preparations of botulinum toxin products and, therefore, units of biological activity of MYOBLOC cannot be compared to or converted into units of any other botulinum toxin products assessed with any other specific assay method.

## Dysphagia and Breathing Difficulties

Treatment with MYOBLOC 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. Deaths as a complication of severe dysphagia have been reported after treatment with botulinum toxin. Dysphagia may persist for several months 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.

- Cervical Dystonia: 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 postmarketing reports of serious breathing difficulties, including respiratory failure, in cervical dystonia patients. 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.
- Pre-Existing Neuromuscular Disorders: Individuals with peripheral motor neuropathic diseases, amyotrophic lateral sclerosis, or neuromuscular junctional 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 MYOBLOC.



# MY PATIENTS. MY CHOICE. MYOBLOC.



# LEARN MORE ABOUT MYOBLOC, DOWNLOAD ADDITIONAL RESOURCES, OR REQUEST A SUPERNUS REPRESENTATIVE AT MYOBLOC.COM/JIM.

#### References:

**1.** MYOBLOC. Prescribing Information. Solstice Neurosciences, LLC. **2.** Brashear A, Lew MF, Dykstra DD, et al. Safety and efficacy of NeuroBloc (botulinum toxin type B) in type A-responsive cervical dystonia. *Neurology.* 1999;53(7):1439–1446. **3.** Brin MF, Lew MF, Adler CH, et al. Safety and efficacy of NeuroBloc (botulinum toxin type B) in type A-resistant cervical dystonia. *Neurology.* 1999;53(7):1431–1438.

## IMPORTANT SAFETY INFORMATION (cont'd) WARNINGS AND PRECAUTIONS (cont'd)

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 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.

MOST COMMON ADVERSE REACTIONS (>5% of patients and >5% more than placebo)

**Cervical Dystonia:** dry mouth, dysphagia, injection site pain, headache

#### **DRUG INTERACTIONS**

Aminoglycosides and Other Agents Interfering with Neuromuscular Transmission: Co-administration of MYOBLOC and aminoglycosides or other agents interfering with neuromuscular transmission (e.g., curare-like compounds) should only be performed with caution as the effect of the toxin may be potentiated.

Anticholinergic Drugs: Use of anticholinergic drugs after administration of MYOBLOC may potentiate systemic anticholinergic effects. Other Botulinum Neurotoxin Products: The effect of administering different botulinum toxin products at the same time or within several months of each other is unknown. Excessive neuromuscular weakness may be exacerbated by administration of another botulinum toxin prior to the resolution of the effects of a previously administered botulinum toxin. Muscle Relaxants: Excessive weakness may also be exaggerated by administration of a muscle relaxant before or after administration of MYOBLOC.

Please refer to the full Prescribing Information, including Boxed WARNING.

