

Incobotulinumtoxin A (Xeomin®) for Cervical Dystonia/Spasmodic Torticollis

What is cervical dystonia and how is it typically treated?

Cervical dystonia is a rare neurological disorder involving involuntary muscle contractions in the neck that cause the head to twist or turn into uncomfortable and often painful positions.

Botulinum toxin injections are recommended as standard therapy to treat most patients with cervical dystonia. Botulinum toxin is produced by the bacteria *Clostridium botulinum*.

Botulinum toxin works by blocking the signals that are sent from the nerve cells to the muscles. When these signals are blocked, the release of acetylcholine is prevented, and the affected muscles are unable to contract. This muscle relaxation helps reduce pain intensity. Botulinum toxin also helps manage pain by blocking the release of certain chemical messengers involved in the transmission of pain signaling (e.g., substance P, calcitonin gene-related peptide (CGRP), and glutamate).

In Canada, three types of botulinum toxin type A are available for cervical dystonia treatment:

- Onabotulinumtoxin A (Botox®)
- Abobotulinumtoxin A (Dysport®)
- Incobotulinumtoxin A (Xeomin®)

Each botulinum toxin product is a unique prescription drug and cannot be exchanged with another. At present, there is little evidence to support the use of one specific product over another. Product selection is typically based on clinician and patient preference, availability, and drug coverage.

How is Xeomin® used to treat cervical dystonia?

- Xeomin® is injected into multiple muscles by a physician with appropriate qualifications and experience. Electromyographic (EMG) guidance may be used to determine the best location to inject the medication.
- The Xeomin® dose is individualized to each patient based on neck and head symptoms experienced, specific muscles involved, location of pain, and muscle mass. The usual starting dose for Xeomin® is 120 units divided among the affected muscles, although up to 300 units can be given.
- Xeomin® only provides temporary relief. Repeated injections can be considered when the injection benefit wears off and are separated by at least 3 months.

When does Xeomin® start to work?

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Improvement in cervical dystonia is typically noticed within 1 week of Xeomin® injection. The benefits often last 3 or 4 months.

What special precautions should I follow?

- Let your physician know if you are taking any anticoagulants (blood thinners). Most patients can continue their anticoagulants prior to, during, and after receiving botulinum toxin injections given the low risk of bleeding complications.
- Avoid rubbing the injection sites after Xeomin® injection. This prevents excessive spreading of Xeomin® outside the area of injection.
- Xeomin® should **NOT** be used in patients with neurological conditions that cause paralysis or muscle weakness (e.g., myasthenia gravis).
- The literature on Xeomin® injection in pregnant or breastfeeding women is limited. Speak with your health care provider if this situation applies to you.

What are the possible side effects of this medication?

Xeomin® is generally well tolerated. Side effects are typically reversible with time.

- The most common side effects include slight discomfort/soreness; muscle weakness; stiffness; and/or bruising at injection site.
- Less commonly, flu-like symptoms may occur.
- Allergies to Xeomin® are uncommon.

If you experience difficulties related to swallowing, speech, or breathing following the administration of Xeomin®, please seek immediate medical attention.

Drug cost/coverage

- If you are an Ontario Drug Benefit (ODB) recipient, Xeomin® drug coverage for cervical dystonia requires the “limited use (LU)” code #130. This code is valid for one year but can be renewed on an annual basis if treatment is successful.
- Xeomin® treatment is typically covered by private drug plans but often requires paperwork to be completed in advance.

How should this medication be stored?

- **Unreconstituted Xeomin® is stored at room temperature (up to 25°C).**
 - This is different than Botox® and Dysport®, which require storage in the refrigerator when in the reconstituted form.
- Once Xeomin® is reconstituted by a health care provider with sodium chloride 0.9% (normal saline), it may be stored in the refrigerator at 2 to 8°C for up to 24 hours.