

Administration of Botulinum Toxin A in the Bladder Wall for Urological Conditions

Main indications:



Idiopathic Overactive Bladder (IOB) +/- urinary incontinence or urgency, that not responded or who are intolerant to medications.

Urinary Incontinence in adults with **Neurogenic Detrusor Overactivity (NDO)** due to neurogenic bladder from stable subcervical spinal cord injury or multiple sclerosis.

If OnabotulinumtoxinA is used for indications other than those specified in the technical data sheet, it will be at the exclusive discretion of the physician and upon obtaining **the appropriate authorization for such use.**

Reconstitution of the toxin



Gently mix (DO NOT CREATE bubbles)

Do not store for more than 24 hours (between 2 and 8 °C)

High spinal cord injuries (>T5-6).

Autonomic dysreflexia prophylaxis:

Oral nifedipine (10-20 mg) administered 30 minutes prior.

Risk factors for poor outcomes

- Male gender.
- PVR >100 mL.
- Dose >100 U.
- Comorbidities.
- Recurrent urinary tract infections (UTIs).
- Bladder fibrosis, low compliance bladder, and maximum detrusor pressure (Pdet max) >110 cm H2O.

CONTRAINDICATIONS

- Confirmed **hypersensitivity** to Botox.
- During **pregnancy** or **breastfeeding**.
- Presence of an active **urinary tract infection** during the time of injection.
- Existing **neuromuscular disorders** (e.g., Myasthenia Gravis or Lambert-Eaton Syndrome).
- **Renal dysfunction** or **advanced pulmonary disease**.
- Use of **specific antibiotics** (including aminoglycosides, tetracyclines, lincosamides, and polymyxins).
- Presence of a **bladder tumor**.
- Unwillingness or **contraindication** to undergo **catheterization**

LOCAL ANESTHESIA

20-30 minutes before

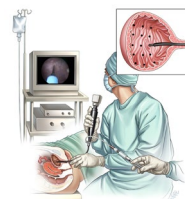
- Intravesical instillation with a 60cc syringe (Wide tip):
- 40 cc (4 ampoules) **5% lidocaine**
 - 4cc 1/2 M Bicarbonate
 - 16cc Physiological Saline Solution (PSS)

RECOMMENDED DOSES

IOB: 100 U (20 injections of 0.5 ml)

NDO: 200 U (30 injections of 1 ml).

- Administer injections **approximately 1 cm apart**.
- Inject to a depth of about 2 mm into the detrusor muscle
- **Excessive dosage/frequency** of instillation may lead to antibodies.



COMPLICATIONS

Local

Increase in PVR (potential need for clean intermittent catheterization)
 Urinary tract infection
 Hematuria



Systemic

Nausea, vomiting, dry mouth.
 Diplopia, blurred vision, photophobia.
 Autonomic dysreflexia.
 Dysphonia, dysarthria, dysphagia, respiratory muscles weakness, and lower limb paresis.

Needles flexible ureteroscope	Part number	Gauge	Tip Length (mm)	Working length (cm)
Coloplast	NB1070	22	4	70
Laborie	DIS200	25	Adjustable depth of 2,3 or 5	70
Olympus	NM-101C-0427	25	4	105

Toxicity occurs starting from **40 U/kg** (2500 to 3000 U for a person weighing 70 kg)!

How long can the effect last?

6 months for **IOB**.
9-10 months for **NDO**.

What do we do if the patient does not respond well?

Re-infiltration of BOTOX® is **not** recommended **before 12 weeks**.

What do we do if the patient does not respond well?

After the **first** injection

- Technique failure
- Insufficient dosage:
- High residual volume or associated (UTI).

After **re**injections

- Antitoxin antibodies
- Respect the 12-week period between injections.
- Laboratory test for detection of specific antibodies.
- Frontalis muscle test (15-20U).