

## Botulinum Toxin A (Botox) in the Treatment of Refractory Detrusor Overactivity

### **Introduction**

Urinary incontinence is a major health problem and affects more patients than diabetes and heart disease combined. This means there are many millions of patients, a lot of whom suffer in silence. This can severely affect quality of life and restrict activities such as shopping, travelling and sports. An **overactive bladder** is caused by an overactive detrusor (“bladder”) muscle. It tenses up without warning, even when you don’t want it to and when your bladder isn’t full. You can experience a sudden desperate urge to “go” and sometimes can’t get to the toilet quickly enough. It can occur at any age and is more common in women especially those who have had previous surgical operations on the pelvic organs (bladder, uterus and bowel). Bladder infections and bladder stones can cause it. Sometimes it is a consequence of a stroke or the disease multiple sclerosis, but in most cases it is not possible to find a reason why the bladder becomes overactive. Most overactive bladders respond to physiotherapy or drug treatment but when tablets to calm the bladder are ineffective or cause side effects such as dry mouth and constipation, botulinum toxin A (Botox) may be recommended. Botox is used to relax muscle tissue and has been used medically for over 20 years. More recently it has been used to relax the detrusor muscle of the bladder leading to a reduction in urinary frequency, urgency and incontinence.

### **Before BOTOX treatment**

- Patients are often recommended to have Urodynamics (a test of bladder function)
- Conventional treatments must have been unsuccessful or inappropriate
- There must be no contraindications to Botox treatment such as Myaesthesia Gravis, Motor Neurone Disease, pregnancy or breast-feeding.
- A discussion about incomplete bladder emptying which can occur after treatment.
- You need to have thought about being able to self catheterise, or at least understand the concept and be willing to learn in the event that you are one of the up to 6 in 100 patients who can experience difficulty fully emptying your bladder in the short term. You will be given an appointment to see the Urology Nurse to discuss this further if necessary.
- You need a clear urine test (no infection) and bladder diary completed.

### **What is involved in the procedure?**

This is a day case procedure under local anaesthesia or sometimes sedation. Local anaesthetic gel is applied to the area around your urethral opening, up your urethra and into your bladder and a solution of local anaesthetic is instilled for 20 minutes via a catheter prior to your procedure. A telescope and camera is inserted into your bladder via your urethra and your internal bladder surfaces are inspected. The BOTOX is then placed in your bladder dispersed widely around. Some minor discomfort is normal with treatment but very short lived. If you are having difficulty with discomfort some sedation or twilight anaesthesia may be given. You will be given antibiotics.

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### **What can I expect after the operation?**

You will be given a Ural sachet and dose of Panadol. If pain medication is required, Panadol should suffice. You will be able to eat and drink straight after the treatment and should be able to go home once you have passed urine, or passed your catheter, **if** you do this normally.

At two weeks you will visit the Urology Nurse to have your flow and emptying checked (unless you already do regular catheters in which case, you will get a phone call from the nurse, you will also only get a call on repeat treatments).

Improvement in your symptoms should be seen within seven days of the injection and should continue for between four and nine months. After this if symptoms start to return one of the medications you were on previously may be recommended to restart; they seem to be very effective after Botox. Further Botox can be given between 6 and 12 months after the initial injection, and repeat injections appear to be equally effective.

### **Complications**

There are few reported side effects with Botox. The two most common issues are incomplete emptying and urinary tract infection. Poor emptying that causes problems is infrequent and will be known around the time you have the nurse review. You may notice a slower or difficult emptying or the feeling of an infection (e.g. frequency, burning). Contact the nurse in this event. Sometimes going to the toilet twice “double voiding” is enough. Only occasionally you will need to empty your bladder with an in and out catheter temporarily.

RARE issues like flu like symptoms may occur but in many hundreds of treatments I have not seen this side effect or muscle weakness e.g. in the legs. Allergy to Botox is very rare. In disabled children if Botox reaches the blood stream, breathing difficulties have been seen but this is extremely rare in the use in bladder. As a result of this effect on these children, Botox carries a “Black Box” warning on the package insert but the overall risk of Botox injected in the bladder causing life threatening complications is extremely low.

### **Follow Up**

You will be given a post-operative sheet of instructions.