

## Botulinum Toxin A (Botox®) in the Treatment of Refractory Overactive Bladder

**An overactive bladder is caused** by an overactive muscle of the bladder wall (the detrusor muscle). It tenses up without warning, even when you don't want it to and when your bladder isn't full. Thus 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 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.

Many people have heard of Botox® for the treatment of frown lines. It is a protein extracted from bacteria, under controlled laboratory conditions, in much the same way as penicillin is produced from mould. Botulinum toxin A (Botox®) works for the bladder by relaxing the muscle of the bladder wall (the detrusor muscle) reducing urinary frequency, urgency and incontinence. Following treatment, the toxins' effects last for several months after which the muscles return to their normal strength (between 3 to 9 months, occasionally longer).

### Before Botulinum Toxin A (Botox®) treatment

- Prior to offering Botox®, your doctor may perform investigations such as urodynamics to confirm your diagnosis.
- Pelvic floor exercises, bladder retraining and medications must have been unsuccessful or inappropriate.
- There must be no contraindications to Botox® treatment such as myasthenia gravis, motor neurone disease, pregnancy or breast feeding.
- You will be taught by our Specialists Nurses how to empty your bladder by passing a tiny tube into the bladder (clean intermittent self catheterisation). This is a simple and safe procedure. You must be able to self catheterise as up to 20% of patients experience voiding difficulties after the procedure.

### The procedure

It is an outpatient procedure usually done under local anaesthetic. Local anaesthetic gel is applied to the area around your urethral opening, up your urethra and into your bladder. A flexible telescope and camera is inserted into your bladder via your urethra and your internal bladder surfaces are inspected.

The Botox® is then injected into multiple sites of your bladder wall via a special needle passed through the telescope directly and then your bladder is emptied. It is a relatively painless procedure.

### After the operation

If painkillers are required, paracetamol should suffice. You will be able to eat and drink shortly after the treatment, and should be able to go home once you have passed urine. You will be given a single dose or a short course of an antibiotic to take at home to reduce

the risk of a urinary tract infection (cystitis). If you are taking medications by mouth to relax the bladder, you should be able to wean yourself off of these once the Botox® treatment begins to take effect, and your doctor will advise you about this.

Botox® DOES NOT work immediately, but over several days to 2 weeks you should begin to experience relief of sudden urges to urinate, and a reduction in urine leakage or stop leaking altogether.

Further Botox® can be given at a minimum of 6 months after the initial injection, although 12 months is more ideal, and repeat injections appear to be equally effective.

## Complications

- Urinary retention requiring catheterisation in up to 20%, not always immediate.
- Urinary tract infection (15-20%).
- Blood in the urine (usually lasts for less than 24 hours).
- There are few reported side effects with Botox:
  - Flu like symptoms (<10%) settle quickly in a few days.
  - Muscle weakness e.g. in the legs.
  - Allergy to Botox® is very rare.
  - Very rarely, if Botox® is injected directly into a blood vessel, breathing might be affected. This does not always occur immediately, but may be noticed slowly over the next few weeks within time to act. Appropriate treatment would be administered.

If you are particularly concerned about any of these risks before your operation don't be afraid to mention it to one of the clinic staff.

## Urinary Retention

- Up to 20% of patients may suffer from retention after Botox® treatment.
- Symptoms can include small volume voids, urinary frequency, dribbling, poor flow, a sensation of incomplete emptying, discomfort or pain, input exceeding output and infection.
- Don't worry, you know how to self catheterise.
- If you need advice use the telephone numbers you have been given (see below).
- Keep a record of each volume you pass normally and how much you drain via the catheter each time you "go".
- You may have to self catheterise up to 3 to 4 times a day (depending on your intake), but how often should lessen with time as your voided volumes increase and your retained volumes decrease.
- Self-catheterisation can be stopped once voided volumes are 2/3rds those of retained volumes provided the volumes are reasonable (e.g. 200mL voided and 100 retained).
- When self-catheterising you are at increased risk of urine infection.

## Follow up

- You will be given the telephone numbers for the gynaecology clinic for use if you have problems once you have gone home.
- The first post-treatment follow up appointment will be at 2 weeks with the Urogynaecology specialist nurse. Please keep a tick chart of your fluid input and output (provided) and bring it with you and a fresh urine sample in a clean bottle. It is vitally important that you keep this appointment.
- Further follow up will be arranged as necessary.
- Further treatment with Botox® will be considered depending on your response to the treatment.

