

Nurse led flexible cystoscopy and injection of botulinum toxin A for patients within a UK spinal injuries outpatients setting

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- What is Botulinum Toxin ?
- The Bladder
- My story
- Training
- Adverse effects
- Contraindications
- Implications for practice
- Patient Feedback questionnaire

- **Botulinum toxin** is a neurotoxin produced by *Clostridium botulinum*, a bacterium that causes food poisoning (botulism). There are seven known types of botulinum toxin, but only types A; and B are used as medical treatments.

- **Botulinum toxin A** is licensed for use in the bladder for the treatment of idiopathic and neurogenic detrusor over activity. And advocated by NICE (national institute for care excellence)

NICE

- Provides summary current evidence
- Best practice and guidance on patients conditions
- Regularly updated when new evidence emerges

- August 2011, FDA approved Botox for specifically “urinary incontinence due to detrusor overactivity associated with a neurological disease and refractory to oral medication

Dosage

- 100iu
- 200iu
- 300iu

Dissolved in a small amount saline (water painful) and injected in 1ml – at intervals around bladder

How does Botox work

- Binds to nerve endings of muscles - blocking the release of the chemical that causes the muscle to contract

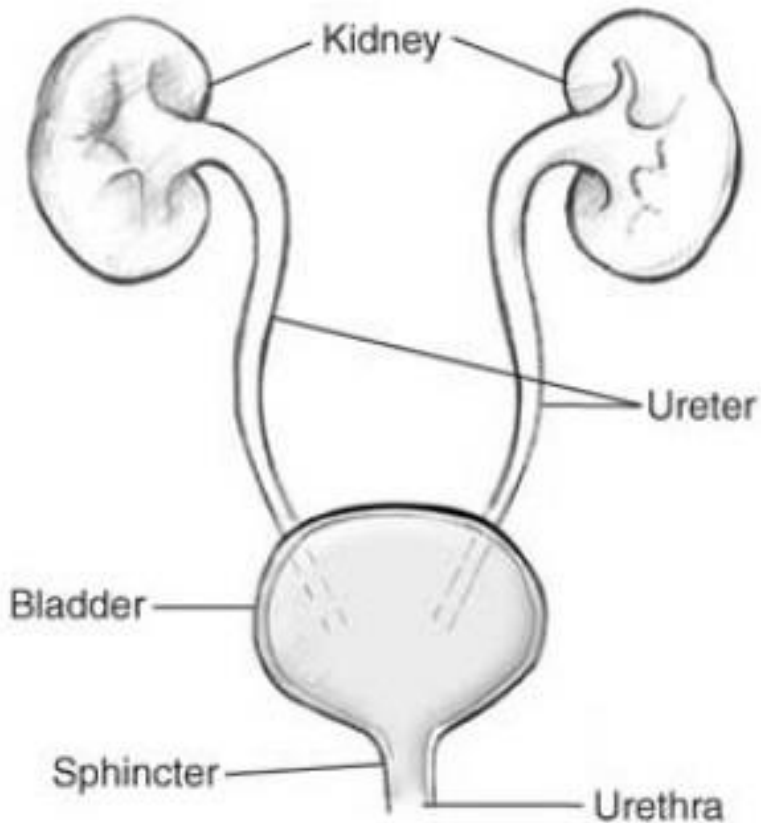
Normal Function

- Storage

- Bladder relaxed
- Sphincter contracted

- Voiding

- Bladder contracts
- Sphincter relaxes



Key Factors in the Normal Bladder

Filling

- Sensation of bladder volume
- Receptive relaxation
- No involuntary detrusor activity

Voiding

- Voluntary initiation
- Complete emptying

Urinary Tract Function

To collect the continuously produced urine

To store it under safe conditions

To void it when socially appropriate

Pathophysiological Principles

- The bladder is made of smooth muscle
 - It cannot be denervated
 - It has tone as an intrinsic characteristic
- A functioning conus is required for reflex bladder contractions
- Receptive relaxation is a spinal reflex
- Bladder function changes over time

Neuro pathophysiology.

- Upper motor neurone/reflex bladder, SCI above 12th thoracic vertebrae (T 12).
- Bladder reflexes intact empties automatically.
- Below (T12) effects sacral section, reflexes destroyed
- Some patients have a mixed picture.

- The neuropathic bladder is not just a dysfunctional normal bladder
 - The bladder is normal
 - The control systems are absent or impaired
 - Voluntary voiding is lost or impaired
 - Continence is lost or impaired

Goals in the Neuropathic Bladder

Protect upper tract

Reduce complications

Continence

WHY WHY WHY ?

- MAD
 - BONKERS
 - STUPID
 - CRAZY
-
- Because it's the right thing – assists the quality of life for the SCI patient.

- Demands of service provision increased flexibility
cystoscopy performed by nurses – general urology
- Within spinal injuries – only performed by urologist / equivalent

- Currently in UK flexi cystoscopy with Botox performed by few nurses
- None within Spinal Injuries UK
- Nature Botox – wears off within few months
- Significant impact on Quality of life

Telephone calls



My Story

- Why
- Patient telephone calls – fair
- Long waiting list for procedure
- Only grow expediently
- Discussion with urologist – supportive

- **PAPERWORK**

- Training – parking
- Different hospital / Department
- Video screen – light flexible scopes
- Non neuropathic bladder (easy)
- Mobile patients



Spinal injuries centre

- Parking – problem
- Neuropathic bladder (nightmare)
- No video screen
- Heavy flexible cystoscopes
- SCI patients - spasm
- Shoulder

Training

- Flexible cystoscopy course
- Simulation Training
- Training – mixing/ drawing up/ disposal
- Followed the BAUS / BAUN Flexible cystoscopy package – adapted for Botox
- Standard operating procedure

Training

- The Flexible Cystoscopy + Botox training schedule, having taken into account recommendations from the British Association of Urological Surgeons (BAUS) + (BAUN) Nurses, to assist the training of the Urology Nurse Practitioner to become competent to perform cystoscopies.

- The nurse practitioner undertaking Flexible Cystoscopy should have a minimum of 5 years' experience in a urology clinical setting
- The nurse practitioner should be trained by a competent practitioner (medical), but should have their competent verified by a senior (consultant) urologist

- The nurse practitioner should keep a training record for the purpose of future audit
- The nurse practitioner is required to keep current of the latest advances in cystoscopy procedure, and best evidence based practice

- Direct supervision should be undertaken until the nurse practitioner is deemed competent to undertake cystoscopy procedure independently (recommendation is minimum of 50 procedures performed under direct supervision) + 50 with Botox

paperwork

- The risk assessment document - to assess any risks associated with specified trained nursing staff expanding their role and undertaking Botox injections using cystoscopy in spinal injury OPD.

Adverse effects

- Mild discomfort at the injection site is common, severe pain is very unusual. Cystoscopy carries a risk of causing a urinary tract infection or causing some bleeding. Patients can experience discomfort voiding for 24 hours after passage of a cystoscope

- Anaphylaxis - signs and symptoms – sickness, urticarial, soft tissue oedema, dyspnoea, cardiac arrhythmias.

- There is a recognised risk of retention with intravesical Botox. Patients should be taught intermittent catheters prior to injections unless they have a permanent indwelling catheter.

Contraindications

- Botulinum toxin is strongly contraindicated in pregnancy and breastfeeding as the effect on the foetus are unknown.

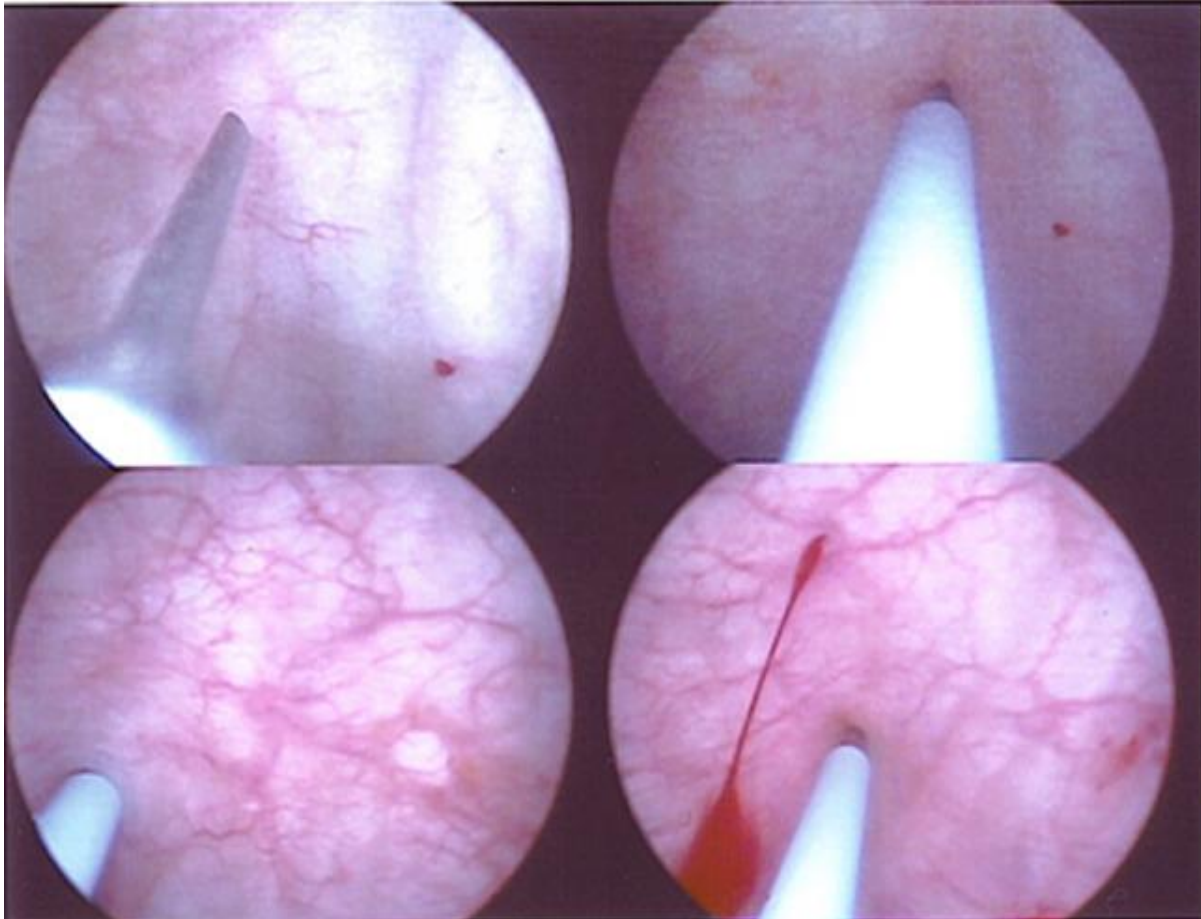
- Known hypersensitivity to any constituents of the formulation.
- Presence of urinary tract infection (unless prophylaxis has been discussed in advance)

- Patient's under-going anti-coagulation therapy or in patients with low platelet counts should have appropriate coagulation screen and discussed in advance.
- When the patient has a generalised disorder of muscle activity, such as Myasthenia Gravis.

- The patient is receiving Botulinum Toxin for other indications (e.g. cosmetic uses or for management of Spasticity). The maximum does of Botox is 300/400 units in 3 months, if a different strain of botulinum toxin has been used advise will need to be taken to compare dosage

What happens during procedure

- Performed in OPD
- Antibiotics pre procedure
- Local anaesthetic gel
- Botox injected through the flexi cystoscope via urethra
- patients may experience discomfort afterwards
- Few side effects



Standard Operating procedure

DOCUMENT TITLE	Standard Operating Procedure for the administration of Botulinum Toxin via Cystoscopy.		
REFERENCE NUMBER	VERSION 1	S T A T U S	SPONSOR/ AUTHOR: Sheilagh Reid Consultant Urologist Jo Marsden Deputy ND Surgical Services
AMENDMENTS			
DOCUMENT OBJECTIVES:			
<ul style="list-style-type: none"> To ensure that Botulinum Toxin is administered via cystoscopy in accordance with standard guidelines 			
INTENDED RECIPIENTS:			
<ul style="list-style-type: none"> Nursing staff trained administer prescribed Botulinum toxin via cystoscopy. 			
GROUPS/PERSONS CONSULTED:			
<ul style="list-style-type: none"> Nicky Thomas (Pharmacy Healthcare Governance Co-ordinator), Gill Shanks (Medicine Safety Manager), Sandi Carman (Head of Patient Safety & Healthcare Governance) 			
MONITORING ARRANGEMENTS AND INDICATORS:			
<ul style="list-style-type: none"> Record of supervision and competency based training. 			
TRAINING/RESOURCE IMPLICATIONS:			
<ul style="list-style-type: none"> Consultant led training programme for identified staff who will be undertaking the procedure. 			
APPROVING BODY AND DATE APPROVED:			
DATE OF ISSUE:			
REVIEW DATE:			
CONTACT FOR REVIEW:		Sheilagh Reid, Paula Muter, David Ash	

Department of Urology / Spinal injuries

**Principles for the administration of Botulinum
toxin via flexible cystoscopy**
(Nurse led)

Final assessment of Botox™ Injection via Flexible Cystoscopy

Evidence of performance (to include Range where applicable)	Assessment (Range 1-4)	Method of assessment	Date completed
1. Accurately identify rationale for the procedure.			
2. Can explain related anatomy and physiology and associated psychological impact of altered body image.			
3. Can describe patient's condition and relevant history.			
4. Provide the appropriate information related to the procedure to the patient and discuss the term 'informed consent'.			
5. Ensure that the patient has completed the consent form and is happy for the practitioner to perform the procedure.			
6. Ensure that the patient has no Contra-indications for treatment.			
7. Can discuss the nurse's role regarding accountability and legal issues.			
8. Explain the term "Scope of Professional Practise".			

DISCUSSION / ACTION PLAN

Please use this part of the document to record meetings relating to the proposed achievement of elements of the clinical competencies.

Date:	Assessor:
Elements discussed:	
Date:	Assessor:
Elements discussed:	
Planned method of attainment of skills and assessments	
Target date:	
If the action plan has not been achieved please state as to the reason why:	
Signature of Assessor:	Signature of Learner:

CHECK LIST

- ISC – YES NO
- AUTOMONIC DYSREFLEXIA
- PREGNANCY STATUS
- OTHER BOTOX THERAPY
- ANTIBIOTIC PX
- CHECK BOTOX
- ALLERGIES/ ALERTS
- ANTICOAGULATION
- DISCUSS ANTICHOLERNIGS
- MIRABEGRON
- EFFECTS LAST TREATMENT
- FOLLOW UP LETTER GP
- WAITING LIST FORM

Patient Satisfaction Questionnaire

Nurse Led Botox Service

We would love to hear what you think about the Botox service Please take a few minutes to complete this form and tell us what we did well and what we need to do better. It will help us to continually improve our service to everyone.

If you would like more information or need assistance with the questions please ask a member

Question 1: The length of time that I had to wait to have my Botox was reasonable

Agree

Disagree

Comments:

Question 2: I was involved and informed in decisions about my care

Agree

Disagree

Comments:

Question 3: I had confidence and trust in the health care person who was treating / advising me

Agree

Disagree

Comments:

Question 4: The health care person explained the treatment / health advice in a way that I could understand

Agree

Disagree

Comments:

Question 5: I was seen in a clean and safe environment

Agree

Disagree

Comments:

Question 6: The information I received about my health care helped me to understand my condition

Agree

Disagree

Not applicable

Comments:

Question 7: My privacy and dignity was respected when being treated or advised

Agree

Disagree

Comments:

Question 8: I would recommend the service to my family and friends

Agree

Disagree

Comments:

Please add any other comments or suggestions that you would like to make below:

Please hand the completed form to a member of staff

We may share information you provide with our services as part of our ongoing commitment to improving the quality of the services we deliver.

Please tick here if you are NOT happy for us to use your feedback in this way

Please tick here if you are NOT happy for your feedback to be used anonymously on service information leaflets and webpages

Implications For Practice

- Reduce waiting list times
- Free up consultant time
- Cost effective
- Inspire other nurses
- Professional development
- Audit service

Improves quality of life for SCI



תודה
Dankie Gracias
Спасибо شكراً
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Děkojame
Ďakujeme Vielen Dank Paldies
Kiitos Tänname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
Σας Ευχαριστούμ 감사합니다
ขอบคุณ
Bedankt Děkujeme vám
ありがとうございます
Tack