Botulinum Toxin Injections for Spasticity

What is spasticity?

The term spasticity refers to muscle over activity; causing muscle tightness, stiffness and spasms. When many parts of the body of the body have been affected, it is known as generalised spasticity. Regional spasticity involves the whole of a limb and Focal spasticity is where a small area such as the foot or hand has been affected. Spasticity can occur in conditions such as stroke, multiple sclerosis, head injury and cerebral palsy, where there has been damage to parts of the brain and spinal cord that control movement.

Why is spasticity harmful?

Spasticity can cause a variety of problems for the person including pain, spasms, disfigurement and a loss of function in activities such as reaching, transferring and walking. It may also make it more difficult for the care-giver assisting with washing, bathing and dressing.

Spasticity can get worse if not treated. Severe spasticity can lead to pressure sores, muscle and soft tissue contracture and limb deformity.

What is Botulinum toxin-A?

Botulinum toxin A (BoNT-A) has been used safely for over 30 years to treat a variety of conditions including focal spasticity. BoNT-A is produced by Clostridium botulinum a bacteria found in nature.

Normally muscles in the body contract or tighten when they receive messages from the brain through nerves. When there is damage to the brain or spinal cord there is poor control over the number of messages sent to the nerves, causing the muscle to over contract. BoNT-A temporarily blocks the messages sent by the nerves, allowing the muscles to relax. The effects of BoNT-A usually lasts for 3 months and gradually wears off over time.

What are the benefits?

The doctor or physiotherapist will assess the pattern of spasticity to select the muscles that require injecting with botulinum toxin. A treatment goal will be agreed with you and common treatment goals include:

- To reduce pain, spasms and disfigurement.
- To improve a specific function
- To make it easier for carers, to help you in your personal care.
- To allow a splint to be applied
- To prevent muscle and soft tissue contracture
- To reduce the risk of pressure sores from developing

Are there any risks or side effects?

There are some risks associated with this treatment. Side effects should be short lasting and usually occur within the first few days following treatment. These include:

- Pain, bruising or bleeding at the injection site

- Fever and flu like symptoms
- Unwanted muscle weakness
- An allergic reaction
- Problems with swallowing
- A blood clot when muscles in the leg are injected.

The treatment may be unsuitable for you if you are / have:

Pregnant or are breast feeding
Myasthenia Gravis
Eaton Lambert Syndrome
Allergy to any constituent of BoNT-A
Presence of infection at the injection site

What happens after the injections?

The physiotherapist can advise and teach you how to stretch the injected muscles to improve the muscle length. If stretching is not enough you may require a splint or cast to maintain the muscle length.

It is very important that you work on your stretches and exercises every day to prolong the effects of the botulinum toxin injections.

After 3 months, the physiotherapist will review whether the treatment has been helpful and if you have achieved your treatment goal. There may be a need for further injections and this will be discussed with you.

If you experience any problems following treatment please contact:

Caroline Graham or Kelly Buzzard, physiotherapists 0121 424-7198 / 0121 424-2000, bleep 8252

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email interpreting.service@uhb.nhs.uk