“Botox”* injection:
Information leaflet for patients, families and therapists

This leaflet provides information, which will help you following your Botox injection.

What is “Botox”?
Botulinum toxin (also known as Botox) is a purified form of a toxin that affects the nerves (a neurotoxin). It works by blocking signals from the nerve to the muscle that has been injected. The nerve is then unable to tell the muscle to move.

Why might I need a Botox injection?
Muscles usually work in pairs or groups where one switches on (prime mover) and the other (antagonist) switches off to allow movement around a joint. Nerve injuries can sometimes lead to problems with muscles and their ability to switch on and off. Sometimes both groups of muscles switch on at the same time (a bit like a tug-of-war between the muscles). We call this co-contraction. If both sets of muscles are co-contracting it can limit the amount of movement in a joint. Botox switches off the muscle which is overworking and allows the ‘prime mover’ to do its job.

It is also suggested that Botox may have an effect on the brain’s ability to talk to the muscles. It is thought that Botox is able to help with the mixed messages being sent and received by the brain (similar to turning a computer off in order to reset it).

The aim of Botox is to improve the every day use of the affected arm and to help prevent contractures, deformities and neglected use of the arm.

How long will it take for it to work?
The injection may take 3 weeks to take full effect. The main thing patients often notice is that the arm feels freer. For example movements such as reaching and bringing the hand to mouth may become easier.

What should I do after the injection?
It is best to start the exercises that are outlined in this leaflet as soon as possible following the Botox injection. It is advised that formal physiotherapy starts from 3 weeks after the injection. This may be at the RNOH or at your local Physiotherapy department.

*”Botox” is used here as an abbreviation. There are many manufactured Botulinum toxin products, one trade-name is Botox. We currently use Dysport™
Infraspinatus Botox

Your child’s infraspinatus muscle has been injected because they have been limited in the amount they can bring their hand towards their body in order to feed or dress themselves.

It may take up to three weeks for Botox to take full effect and it is important that your child keeps using the arm as they normally would.

You will be given an appointment to see a physiotherapist approximately 3 weeks after the injection. This can either be at the RNOH or at a hospital which is more local to you if preferred (appointment to be arranged prior to receiving Botox injection).

The following exercises are recommended following the injection. These exercises should be completed with the child in lying. Ensure the shoulder/elbow/forearm is well positioned and supported.

The exercises should be done frequently (at least 5 times a day with approximately 20 repetitions) but stopped if your child starts to use compensatory movements (for example: bending/twisting their back or hitching their shoulder).

You should also continue with any exercises or stretches that you have previously been given by your therapist.

1 **Internal Rotation in Neutral**
   - With one hand, support the front of the shoulder and keep the arm by the side of the body.
   - With your other hand hold and support around the wrist and roll the forearm inwards.
   - Keep the elbow by their side.

2 **Internal Rotation in Abduction**
   - With one hand, stabilise the front of the shoulder and lift the arm up and out to 90 degrees (a right angle) from the body.
   - With the other hand, hold the wrist and rotate the forearm forwards towards the bed.

3 **Posterior Scapulo-humeral Angle**
   - With one hand, hold the shoulder blade firmly against the chest wall.
   - With the other hand, stretch the arm across towards the opposite shoulder.
   - Keep shoulder blade fixed to the side and the elbow at shoulder level.

**Play activities to help with bringing hand to body:**
- Patting head and rubbing tummy (with affected arm)
- Head, shoulders, knees and toes
- Clapping
- Playing the cymbals if you can stand the noise!
- Dressing up - Practicing zips and buttons on clothes