



Manchester University
NHS Foundation Trust

Royal Manchester Children's Hospital

Paediatric Otorhinolaryngology (ENT)

Ultrasound-guided Botox Therapy For Drooling

Information for Parents, Carers and Patients

Consultant:

Tel:





What is drooling (sialorrhoea)

Drooling refers to an unintentional loss of saliva from the mouth. Although drooling is very common in healthy children, it can be a major issue, especially for children with underlying neuromuscular conditions such as cerebral palsy. It is very rare that the drooling is caused by an excess production of saliva. More commonly, drooling or dribbling occurs as a result of an inefficient, uncoordinated or infrequent swallow. The saliva can irritate the skin of the face, neck and chest and be associated with considerable social stigma. In severe cases, it can lead to aspiration pneumonia and result in hospital admissions for the child.

What is Botulinum toxin Type A (Botox)?

Botulinum toxin type A (Botox) is a toxin which is naturally produced by the bacteria *Clostridium botulinum*. This bacteria is present in many natural settings including soil, lakes and forests. When purified and used in small, controlled doses, Botox has many uses. It has been used as a medicine in the United Kingdom for many years. Botox injections are a recognized part of treatment programmes for drooling as outlined in the National Institute for Health and Care Excellence (NICE) guidelines

How do Botox injections help with drooling?

Our saliva glands are controlled by nerve endings. In order for our saliva glands to function, the nerves release a chemical messenger called acetylcholine at the junction where the nerve endings meet the saliva gland. Botox injections prevent the release of this chemical messenger. In doing so, it blocks the function of the saliva gland and reduces saliva production.

What is the role of Botox in the management of my child's drooling?

Every child is unique. Your Consultant will formulate an individualized treatment plan best suited to your child's needs. In most cases, a number of other options will have been explored prior to referring your child for





Botox. These include:

- Conservative measures e.g. dabbing (not wiping), postural supports and exercises that work on swallowing coordination
- Medicines including a hyoscine patch or glycopyrronium bromide

If your child's drooling continues to affect their quality of life despite these measures, Botox therapy can be considered

What is involved in having ultrasound-guided Botox therapy?

Every child is a unique individual. Based on his/her history, your Consultant will talk to you about the site and number of injections required as well as whether the procedure will be done under local or general anaesthesia.

Most commonly, the procedure is done under local anaesthesia in the ultrasound department. Although you and your child may be anxious about this, it is no worse than having a vaccine and is usually over very quickly. A local anaesthetic cream or spray will be used to numb the skin over the injection sites. An ultrasound probe is used to identify the saliva glands. A small needle containing the Botox will then be inserted into the skin. The ultrasound is used to confirm that the needle has entered the saliva gland. The Botox is then injected directly into the gland. You are more than welcome to stay with your child throughout the procedure. You will be able to go home immediately afterwards.

More rarely, the procedure may be done under a general anaesthetic. This may be because your child is having a general anaesthetic for another reason. A joint procedure, if possible, may be organized under these circumstances. It is also possible that parents express a preference for the procedure to be performed under general anaesthesia, especially if they feel their child is unlikely to be cooperative with the procedure while awake. If a general anaesthetic is





required, you will be asked to attend a pre-operative assessment clinic so we can ensure your child is well enough for an anaesthetic. The procedure itself is identical to that performed under local anaesthesia and we would expect your child to go home the same day after a short recovery period on the ward.

Whether the procedure is done under local or general anaesthesia, it is important that the person bringing your child in should have ‘Parental Responsibility’ for them. Parental Responsibility refers to a person who has the legal rights, responsibilities, duties, power and responsibility to make decisions for a child. If the person bringing the child in for their procedure does not have Parental Responsibility, we will have to cancel the procedure and reschedule for a time when a person who has Parental Responsibility is available

Are there any risks?

Although generally a very safe procedure, ultrasound-guided Botox therapy for drooling is associated with some risks. These include:

- Pain or bruising at the injection sites(s)
- Botox may temporarily affect the muscles of the jaw making chewing more difficult
- There is a very small chance that the Botox may affect the nerves surrounding the salivary glands causing difficulties swallowing and aspiration (breathing into the lungs) of food and water. Performing the procedure under ultrasound-guidance significantly reduces this risk
- Need for repeat or alternative treatment – the effects of Botox are temporary and further treatment is often required
- There is a very small risk with any anaesthetic. However, modern anaesthetics are very safe





Will my child feel any pain afterwards?

There may occasionally be some pain and bruising around the injection site(s). This is normally easily managed with over-the-counter pain relief such as Paracetamol and Ibuprofen. Follow the dosage instructions on the packet

Is there anything I need to watch for when my child goes home?

If you notice any of the following symptoms, please contact the ward from which your child was discharged for further advice:

- If the injection site(s) looks red or swollen or feels hotter than the surrounding skin
- If your child has a fever
- If your child is in a lot of pain and over-the-counter pain relief does not seem to help
- If your child has difficulty chewing or swallowing

What can I expect after the procedure?

The length of time Botox takes to work varies from child to child. Usually, parents/carers see an improvement after 2-3 days but it can take up to 6 weeks to reach maximal effect. The effects generally last 3-4 months but can often last up to 6 months. Sometimes after the procedure, it may be necessary to adjust other medication e.g. hyoscine or glycopyrronium to stop the saliva becoming too thick. If you are concerned, please contact your GP or Community Paediatrician

Will my child have a follow-up appointment?

Your child will have a follow up appointment to see how effective the treatment has been. The timing of this will be discussed with you on the day of the procedure.



What happens once the Botox wears off?

Depending on how your child responded to the Botox therapy, he/she may be a candidate for further Botox therapy. Alternatively, the option of more definitive surgery including clipping of the saliva ducts or gland excision may be discussed. This will depend upon the individual circumstances of your child. It is important to note that if a child does not have a good response to Botox therapy, they are less likely to have a good outcome following more definitive surgery. This will be discussed with you in more detail at your follow-up appointment.

Covid and surgery

It is likely that having an operation while carrying the Covid-19 virus causes an additional risk of developing complications. How much of a risk this is in children remains unclear. Whilst we are awaiting more details around this, we have taken precautions both prior to admission as well as during hospital stay to limit the risk of Covid-19 in the peri-operative period.

Questions

We understand that there may be questions that either you or your child would like answering. Most of us forget what we were going to ask the doctor or the nurse.

Please write your questions below.

No Smoking Policy

Please protect our patients, visitors and staff by adhering to our no smoking policy. Smoking is not permitted in any of our hospital buildings or grounds, except in the dedicated smoking shelters in the grounds of our Hospital site.

For advice and support on how to give up smoking, go to www.nhs.uk/smokefree.

Translation and Interpretation Service

It is our policy that family, relatives or friends cannot interpret for patients. Should you require an interpreter ask a member of staff to arrange it for you.

تتص سیاستا علی عدم السماح لافراد عائلة المرضى او اقاربهم او اصدقائهم بالترجمة لهم. اذا احتجت الى مترجم فيرجى ان تطلب ذلك من احد العاملين ليرتب لك ذلك.

بماری یہ پالیسی ہے کہ خاندان، رشتہ دار اور دوست مریضوں کے لئے ترجمہ نہیں کر سکتے۔ اگر آپ کو مترجم کی ضرورت ہے تو عملے کے کسی رکن سے کہیں کہ وہ آپ کے لئے اس کا بندوبست کر دے۔

ইহা আমাদের নীতি যে, একজন রোগীর জন্য তার পরিবারের সদস্য, আত্মীয় বা কোন বন্ধু অনুবাদক হতে পারবেন না। আপনার একজন অনুবাদকের প্রয়োজন হলে তা একজন কর্মচারীকে জানান অনুবাদকের ব্যবস্থা করার জন্য।

Nasze zasady nie pozwalają na korzystanie z pomocy członków rodzin pacjentów, ich przyjaciół lub ich krewnych jako tłumaczy. Jeśli potrzebują Państwo tłumacza, prosimy o kontakt z członkiem personelu, który zorganizuje go dla Państwa.

Waa nidaamkeena in qoys, qaraaboamasaaxiiiboaysanu tarjumikarinbukaanka. Haddiiad u baahatotarjumaankacodsoxubinka mid ah shaqaalahainaykuusameeyaan.

我们的方针是，家属，亲戚和朋友不能为病人做口译。如果您需要口译员，请叫员工给您安排。



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