

# Iontophoresis with Glycopyrrolate Solution

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Information and advice when receiving Iontophoresis with Glycopyrrolate Solution for Hand or Foot Hyperhidrosis

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**Dermatology Resource Unit,**

Christchurch Hospital, Fairmile Road, Christchurch. BH23 2JX

Appointments Desk: **0300 019 4740** (option 4) Monday to Friday 9am - 4.30pm.

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## What are the aims of this leaflet?

This leaflet has been written to help you understand about receiving iontophoresis treatment for hand or foot hyperhidrosis with the use of glycopyrrolate solution. It tells you what may prevent you from receiving treatment, what the common and potential side effects are and how to manage them.

## What is Hyperhidrosis and Iontophoresis?

Hyperhidrosis is the name given to excessive sweating, it may affect the entire body, or it may be localised to specific areas of the body.

Iontophoresis is a safe and effective treatment, in which, a continuous direct, or a pulsed, low voltage electrical current, is passed through skin soaked in tap water, to help reduce excessive sweating of the hands or feet. This method can also be used to administer Glycopyrronium Bromide, when tap water alone proves ineffective.

## What is Glycopyrrolate Solution (Glycopyrronium Bromide)?

Glycopyrronium Bromide (administered as glycopyrrolate solution) belongs to a group of medicines called Antimuscarinic (anticholinergic) drugs. The ends of the nerves that trigger the sweat glands produce a chemical called acetylcholine to actually make the glands produce sweat. Anticholinergic medications block this chemical to reduce sweating, inhibiting the action of acetylcholine, a neurotransmitter in the parasympathetic nervous system.

Although Glycopyrrolate solution is classified as an unlicensed product, it has been repeatedly and safely used iontophoretically for many years within dermatology for the treatment of hand and foot hyperhidrosis.

# When is iontophoresis with glycopyrrolate solution not a suitable treatment option?

What follows are contraindications and precautions.

## Iontophoresis contraindications:

- heart conditions including:
  - a heart pacemaker
  - an implanted cardio-defibrillator (ICD)
  - cardiac arrhythmia
- have metal implants in the area of current flow
- using metalliferous intrauterine devices (contraceptive coil)
- during pregnancy
- have uncontrolled epilepsy or history of seizures
- with recent wounds, scars, or swollen, broken or inflamed skin at site of treatment
- with strongly reduced sensitivity of hands and/or feet (e.g. polyneuropathy)
- a previous adverse reaction or hypersensitivity to electrical stimulation

## Glycopyrrolate Solution contraindications:

- allergic to glycopyrrolate, (Glycopyrronium bromide, Rubinol)
  - excipients: Bronopol, Citric acid monohydrate
- during pregnancy and breastfeeding
- Glaucoma
- History of renal failure or obstructive uropathy (a blockage in your urinary passages such as bladder or kidneys)
- Gastrointestinal tract disorders such as ulcerative colitis or ileus.
- you are under 12 years of age (unless otherwise directed to receive treatment by your dermatology consultant)

## Glycopyrrolate solution precautions:

Inform the nurse before treatment if any of the following precautions apply. You have:

- An over active thyroid gland
- A lung problem such as chronic bronchitis or asthma
- Currently suffering from a bacterial, fungal or viral infection at site of treatment
- Currently taking medication that could interact with Glycopyrronium Bromide, such as sedating antihistamines and some antidepressants

**Please Note:** If you are currently taking oral medication prescribed to help reduce your hyperhidrosis (anticholinergics / antimuscarinics) such as, Oxybutynin (Ditropan) or Pro-Banthine (Propantheline Bromide), you will be required to stop taking this medication a minimum of 24 - 48 hours before and after your iontophoresis appointment.

If you are currently or commence taking, any oral medication whilst receiving iontophoresis treatment with glycopyrrolate solution, please inform the nurse before continuing with your treatment.

If you have any questions, please telephone the Unit for further clarification on **0300 019 5471**.

## What will the treatment involve?

We will treat your hands or feet by placing them in shallow plastic baths, into which tap water and glycopyrrolate solution has been poured (one in either bath) through which an electric current, which is controlled by you, is then passed at a safe level.

At each appointment your progress will be assessed and any symptoms / side effects you are experiencing discussed. Your treatment will progress according to how well you are tolerating the procedure, up to the maximum dose permitted.

Thereafter, we would expect you to attend as and when your symptoms start to return, this may be about once every 2 to 8 weeks.

You will be asked to complete a questionnaire, before you start treatment, and then approximately 3 to 4 months later to help assess the effectiveness of the treatment.

After approximately twelve months, we will arrange an appointment with your dermatologist, to review your progress.

## What are the possible side-effects from iontophoresis and glycopyrrolate solution?

The iontophoresis process and the drug glycopyrrolate both can cause their own side effects, which vary in intensity and tolerance of, from patient to patient. They usually become increasingly likely to occur as your treatment progresses. However, systemic (affecting the whole body) side effects from antimuscarinic drugs such as glycopyrrolate, when administered as a solution using iontophoresis, are not as affecting than if you were to take them by other means, such as in tablet form.

### Iontophoresis side-effects

Occurring temporarily but most commonly to treated areas are:

- Tingling sensation and itchiness
- Mild reddening/irritation of the skin (which soon fades)
- Initial softening of the skins due to water immersion and treatment process

If you suffer from eczema, it may worsen the condition.

The following, though potentially can occur, are uncommon and can be reduced by proper administration of treatment:

- Dry and cracked skin
- Bruising or blisters (vesicles)
- A mild electric shock if patients are non-compliant with method of treatment. The electric current used during iontophoresis is not strong enough to cause a harmful shock but it could startle you, if you were to remove your hands or feet from the water during treatment.
- Mild electrical burn, if you touch the metal parts of the equipment whilst treatment is in progress
- Moderate skin thickening, if any iontophoresis treatments are repeated too frequently

### Typical Antimuscarinic drug (glycopyrrolate) side-effects

The side effects of glycopyrrolate are predictable yet reversible and so with the addition of glycopyrrolate solution to your treatment you will also experience:

- Dryness of mouth and throat - (most commonly over 24 hour period)

Other side effects associated with antimuscarinic medication may lead you to experience the following, which are expected to resolve after 24 hours. Although not everybody gets them, as there is variation in tolerability to the drug from one patient to another, the possibility does increase as you treatment progresses.

- A rapid heart beat

- Blurred vision and/or enlarged pupils
- Drowsiness
- Dizziness, confusion, insomnia
- Headache
- Difficulty in passing urine
- Reduction of overall body sweating, fever (caused in part by reduced sweat production)
- Constipation
- Stomach may feel swollen (bloating)

Once the drug has been excreted from the body the only areas left affected by the treatment should be the hands or feet.

All medicines can cause allergic reactions although serious allergic reactions are rare. However, there have been occasional reports of allergic reactions to glycopyrrolate, including anaphylaxis.

## What you need to know and should do before receiving iontophoresis with glycopyrrolate solution?

As iontophoresis with glycopyrrolate solution can cause any of the above side-effects you need to:

- Arrange for someone to drive you home after treatments. Due to the possibility of drowsiness and/or blurred vision, do not drive or use machinery until you are sure this medicine does not adversely affect your ability to do so safely.
- Dry mouth and throat:
  - If possible try to have your meal prior to treatment.
  - Bring a bottle of water with you.
- If applies, temporarily stopped any oral medication prescribed to help reduce your hyperhidrosis (anticholinergics / antimuscarinics) such as, Oxybutynin (Ditropan) or Pro-Banthine (Propantheline Bromide) 24 to 48 hours before treatment. Please discuss with the clinic nurse for clarification. Treatment will not be given if this has not happened.
- Have discussed any concerns about other medication you may currently be taking, with the clinic nurse prior to attending your hospital appointment. This will allow time to ensure that your consultant is happy for you to proceed with your glycopyrrolate treatment. Please ring **0300 019 5471** in order to do this.
- Ensure area/s to be treated are clean and free from any other products / contaminants.
- Any and all jewellery has been removed, including body piercings, in the area of current flow. Any metal objects in the head area, such as dental work or earrings, do not affect your treatment and can be safely left.
- Any cuts/abrasions or communicable skin conditions on areas being treated, must be reported to the nurse. Treatment may be postponed until such areas are healed.
- If you wear contact lenses, please wear your prescription glasses instead on days of treatment.

## What should I do after treatment?

To help manage any post treatment effects please apply the following advice:

- Make sure your first meal after treatment is liquid based e.g. soup
- Ensure you have water to hand especially when eating.
- Avoid eating dry foodstuffs such as crackers, nuts and boiled sweets, until symptoms of a dry throat disappear.
- Do not drink alcohol for 24 hours.
- Avoid over exertion, for at least 24-48 hours, particularly in hot weather, e.g. running, swimming, cycling etc., until any unwanted side-effects have disappeared.

## What if:

- the area treated becomes uncomfortably dry. You can purchase a water based emollient and use it to wash the area in between treatments, instead of soap based products. You can also moisturise with a light lotion or cream moisturiser after and in between treatment.
- the area treated becomes too irritated and sore. You can apply 1% Hydrocortisone cream, which can be purchased at your local chemist, after your treatment sessions.

Always discuss any side effects with the nurse before receiving any subsequent treatment. You should note the severity and duration of any symptoms. Your treatment may need to be modified to help you best manage any side effects that you are finding difficult to tolerate.

As with all medication please note. Consult a doctor immediately if you experience any of the following symptoms:

Swelling mainly of the face, lips or throat which makes it difficult to swallow or breathe, itching and rashes over your body. This could be a sign of a severe allergic reaction or angioedema.

## How do I request further treatments?

To receive further glycopyrrolate iontophoresis, you will need to book an appointment one week prior to receiving your next treatment, allowing for 5 working days. You can book appointments in person at our Dermatology Reception, Dermatology Resource Unit, Christchurch Hospital, or by telephoning the Christchurch Out patients Appointments Desk: **0300 019 4740** (option 4) Monday to Friday 9 am - 4.30 pm. If you are unable to keep your appointment please contact the Christchurch Out patients Appointments Desk to cancel and re-schedule. If you book appointments, but then repeatedly fail to attend we will refer you back to your GP.

## Further Advice and Support

If you have any further questions please contact:

Dermatology Resource Unit on: **0300 019 5471**

### Online resources:

- Hyperhidrosis UK Support group website: [www.hyperhidrosisuk.org](http://www.hyperhidrosisuk.org)
- International Hyperhidrosis Society website: [www.sweathelp.org](http://www.sweathelp.org)

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Author: **Steve Burns** Date: **July 2021** Version: **Four** Review date: **July 2024** Ref: **406/21**

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