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, an 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 is classified as an unlicensed drug for use in England, it has been repeatedly and safely used iontophoresetically, for many years within dermatology for the treatment of hand and foot hyperhidrosis.
What will prevent me from having treatment?
What follows are contraindications and precautions.

**Iontophoresis contraindications:**
- heart conditions including:
  - 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 epilepsy or history of seizures
- have large skin defects / wounds at site of treatment
- have swollen, broken, inflamed skin or recent scar tissue on the areas to be treated
- with strongly reduced sensibility 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 Glycopyrroonium 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 01202 705471.
**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 affects 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 (to the hands and/or feet)
- Reddening and/or softening (mild maceration) of skin

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:

- Very small bruises, if the intensity of treatment is too great
- 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.
- Moderate skin thickening, if treatments are repeated to frequently
- Mild electrical burn, if you touch the metal parts of the equipment whilst treatment is in progress

**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 between patients.

- 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 machines until you are sure this medicine does not affect your ability to do so.

• Dry mouth and throat:
  • If possible try to have your meal prior to treatment.
  • Bring a bottle of water with you.

• 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 beforehand. This will allow them time to ensure that your consultant is happy for you to proceed with your glycopyrrolate treatment. Please ring **01202 705471** 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, particularly in hot weather, e.g. running, swimming, cycling etc., until any unwanted 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?

Telephone the Appointments Desk: **01202 704740** (option 4) Monday to Friday 9 am - 4.30 pm.

If you wish to receive further glycopyrrolate iontophoresis, you will need to book an appointment one week prior to wanting your treatment allowing 5 working days.

If you book appointments but then repeatedly fail to attend we will refer you back to your GP.

If you are unable to keep your appointment please contact the Dermatology Resource Unit promptly to re-schedule.

Further Advice and Support

If you have any further questions please contact:

Dermatology Resource Unit on: **01202 70 5471** (Answerphone)

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)

Our mission
To provide the excellent care we would expect for our families.

Dermatology Resource Unit
Christchurch Hospital, Fairmile Road, Christchurch. BH23 2JX

The Bournemouth Hospital Charity raises funds for the Bournemouth and Christchurch Hospitals to enhance patient care and purchase items which directly benefit patients and staff above and beyond that which can be funded by the NHS alone. If you would like to contribute to the Bournemouth Hospital Charity please contact them on **01202 704060**, email **charity@rbch.nhs.uk** or visit [www.bournemouthhospitalcharity.org](http://www.bournemouthhospitalcharity.org).

If you have any queries or concerns about your care at the Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust, the Patient Advice and Liaison Service (PALS) would be happy to help you and can be contacted on **01202 704886/704301** or **pals@rbch.nhs.uk**.

If you would like this leaflet printed in a larger font, please contact the Communications Team on **01202 704905** during the office hours of 8.30am-5pm Monday - Friday.

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Website: [www.rbch.nhs.uk](http://www.rbch.nhs.uk) ■ Tel: **01202 704740**