

Information for Patients

Use of Povidone-iodine before eye injections

A large volume of intravitreal injections are carried out at the Macular treatment service, Manchester Royal Eye Hospital (approximately 4000 per month, across four sites). It is an invasive technique and the major sight threatening risk is endophthalmitis (a severe infection within the eye).

This leaflet aims to answer some of the questions patients frequently ask us about the use of Povidone-iodine, however, if you have further queries then please do not hesitate to discuss with your eye clinician during your consultation or Clinical Nurse Specialist (CNS).



Why is Povidone-iodine used before my eye injection?

At the Manchester Royal Eye Hospital (MREH), we practice evidence-based medicine. Before your injection treatment (intravitreal injection) is given, we clean your eyelids, surrounding area of your eye and surface of your eye with an antiseptic agent called Povidone-iodine. Povidone-iodine is also used for patients undergoing any type of eye surgery or procedure (as shown in photo above).

This is because there is strong evidence that using povidone-iodine before an intravitreal injection procedure minimises the risk of infection. Our audit shows the risk of eye infection is approximately 1 in 5,000 cases.

Povidone-iodine use has been extensively researched in ophthalmology, as well as in other medical specialties, as a means of reducing the risk of infection. It has been proven to be a highly effective and well-tolerated agent that has been used for this purpose for over 150 years.

If I experience sensitivity to Povidone-iodine does that mean I may be allergic?

All antiseptic agents/drops are known to cause mild to moderate irritation or some redness but that does not mean that you are allergic to them. Some patients may consider themselves "allergic to iodine" but the reaction they experience is more often due to its irritant effect on the mucous membranes and contact dermatitis on the skin rather than a true allergy. True iodine allergy is extremely rare as iodine is an essential element that is naturally present within all animal species.

If you have any known allergy to Povidone-iodine, please tell your eye doctor during your consultation when you attend the Macular treatment clinic appointment.

Why would I experience sensitivity to iodine?

Iodine is in the same group as chlorine (used as an antiseptic in swimming pools) and so it is likely that you will have a similar reaction to the eye irritation you may get from extended swimming.

Is there any preparation I can do to reduce iodine sensitivity?

It is common to have sensitivity to iodine and we make every effort to reduce possible irritation by thoroughly washing out the Povidone-iodine at the end of the procedure. However, we advise you use ocular lubricants before coming for your injections to reduce this sensitivity. Ocular lubricants are also provided by us as part of your post-operative discharge care, and we recommend you use them a few times a day which should help with eye irritation.

Can an alternative antiseptic agent be used?

For patients with 'true iodine allergy' we can use another antiseptic agent, such as Chlorhexidine gluconate. Chlorhexidine is a good alternative antiseptic agent; however, it is not as effective as povidone-iodine. This evidence is supported by clinical studies which have demonstrated 10 times greater risk of infection when using chlorhexidine instead of Povidone-Iodine. Therefore, to prevent the risk of serious infection, our departmental policy is to use Povidone-Iodine as a first line antiseptic agent, rather than Chlorhexidine.

Contact details:

Macular Treatment Centre (0161) 276 5575/3341 Monday – Friday 8.00am -6.00pm

Trafford Macular Centre (0161) 746 2626 Monday – Thursday 8.00am -5.30pm Friday 8.00am -1.30pm

Specialist Eye Clinic (Civic Centre, Wythenshawe)

(0161) 507 3765 Monday - Thursday, 8.00 - 5.30pm Friday 8.00 -1.30 pm

Specialist Eye Clinic (Cheetham Hill) (0161) 934 8334

Monday, Tuesday, Thursday 8.00am – 5.30pm Wednesday & Friday 8.00am – 1.30pm

If you require emergency treatment, you can contact the Emergency Eye Department which is open from 8.00am to 8.00pm every day. Outside of these hours please contact Ward 55 open 24 hours every day. These departments can be contacted via the hospital switchboard on (0161) 276 1234 asking to be put through to the Emergency Eye Department or the ward.

References:

Durani P, Leaper D. Povidone-iodine: use in hand disinfection, skin preparation and antiseptic irrigation. *Int Wound J.* 2008 Jun;5(3):376-87

Wulf NR, Schmitz J, Choi A, Kapusnik-Uner J. Iodine allergy: Common misperceptions. *Am J Health Syst Pharm.* 2021 Apr 22;78(9):781-793

Modjtahedi BS, van Zyl T, Pandya HK, Leonard RE 2nd, Elliott D. Endophthalmitis After Intravitreal Injections in Patients With Self-reported Iodine Allergy. *Am J Ophthalmol.* 2016 Oct; 170:68-74.

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