

Cryotherapy for chronic rhinitis

Interventional procedures guidance

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www.nice.org.uk/guidance/ipg771

1 Recommendations

- 1.1 Cryotherapy for chronic rhinitis should be used only in research. Find out [what only in research means on the NICE interventional procedures guidance page](#).
- 1.2 Further research should report details of patient selection, duration of the effect (including whether repeat procedures are needed), and long-term outcomes.

Why the committee made these recommendations

The evidence for cryotherapy for chronic rhinitis is limited and includes people with different types of rhinitis. The evidence does not raise any major safety concerns, but the procedure can have complications. The short-term evidence is promising, but it is still uncertain how well the procedure works, particularly which group of patients will benefit most from the procedure and how long the effect of the treatment will last.

2 The condition, current treatments and

procedure

The condition

- 2.1 Rhinitis is inflammation and swelling of the mucous membrane inside the nose. Chronic nasal inflammation lasts over a long period of time, usually longer than 12 weeks. Common symptoms include sneezing, itchiness, and a stuffy or runny nose. There are 3 main types of rhinitis: allergic rhinitis, infectious rhinitis, and non-allergic, non-infectious rhinitis.

Current treatments

- 2.2 Treating rhinitis depends on the specific cause or diagnosis. Treatment options include:
- non-pharmacological treatments (such as avoiding triggers and using environmental controls)
 - pharmacological treatments (such as steroid nasal sprays and oral antihistamines)
 - surgery (such as posterior nasal neurectomy).

The procedure

- 2.3 This procedure is done under local anaesthesia. A probe is inserted into the nasal cavity, and its balloon tip is placed endoscopically in the posterior middle meatus. Once the tip is in contact with the targeted tissue over the branches of the posterior nasal nerve, nitrous oxide cryogen is released through the tip from the canister. This freezes the targeted mucosal tissue, with the aim of ablating the posterior nasal nerve. Cryogen is delivered for 30 to 60 seconds and the contralateral side is treated the same way if needed.

3 Committee considerations

The evidence

- 3.1 NICE did a rapid review of the published literature on the efficacy and safety of this procedure. This comprised a comprehensive literature search and detailed review of the evidence from 7 sources, which was discussed by the committee. The evidence included 1 systematic review, 1 randomised controlled trial, 3 single-arm trials, 1 case-control study, and 1 analysis of the Food and Drug Administration's Manufacturer and User Facility Device Experience database. It is presented in the [summary of key evidence section in the interventional procedures overview](#). Other relevant literature is in the appendix of the overview.
- 3.2 The professional experts and the committee considered the key efficacy outcomes to be: improvement in quality of life, need for repeat procedures and reduction in rhinitis symptoms.
- 3.3 The professional experts and the committee considered the key safety outcomes to be: bleeding, pain, dry eyes, nasal dryness and infection.
- 3.4 Patient commentary was sought but none was received.

Committee comments

- 3.5 In the evidence reviewed by the committee, there was no reduction in concomitant medication use. However, the committee was informed that this was not the primary intention of the procedure and that the procedure could help the medication to work more effectively.
- 3.6 In the evidence reviewed by the committee, most studies only reported follow-up data within 1 year. The short-term evidence showed improvements in rhinitis symptoms and quality of life. However, the evidence was limited and included people with different types of rhinitis. The committee was informed that cryotherapy might be more useful for treating non-allergic rhinitis than allergic rhinitis, because there are more treatments available for allergic rhinitis than non-allergic rhinitis. Further

research is needed to better establish the efficacy of this procedure. In particular, research is needed on which group of patients will benefit most from the procedure and how long the effect of the treatment will last.

3.7 This procedure is typically done in conjunction with nasal endoscopy.

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Endorsing organisation

This guidance has been endorsed by [Healthcare Improvement Scotland](#).

Accreditation

