Consultation Report

Topic details

Title of policy or policy statement:	Mercaptamine hydrochloride for corneal cystine deposits in people aged older than 2 years
Programme of Care:	Internal Medicine
Clinical Reference Group:	Renal Services and Specialised Ear and Ophthalmology Clinical Reference Groups
URN:	1832

1. Summary

This report summarises the outcome of a public consultation that was undertaken to test the policy.

2. Background

Cystinosis is a rare inherited disease caused by a genetic metabolic disorder where the build-up of a natural chemical called cystine causes damaging crystals to form in areas of the body such as the kidneys, most of the tissues of the eye, and in the muscles.

All people with cystinosis have cystine crystals in their corneas. If left untreated the cystine crystals can cause symptoms including light sensitivity, involuntary closure of the eye, eye pain or diseases of the eye surface. More severe complications such as reduced visual contrast sensitivity (the ability to distinguish between light versus dark; affected especially in situations of low light, fog or glare) can develop as the disease progresses. Complications from poorly managed corneal cystine crystals in older people can lead to permanent visual impairment or blindness.

The only treatment currently available in the NHS for corneal cystine crystals is an unlicensed aqueous (water based) solution of mercaptamine hydrochloride, administered as eye drops. However, it can be difficult for patients to comply with the recommended frequency of dosing (between 6 and 12 times per day). Additionally, if not refrigerated, the active ingredient breaks down rapidly. This reduces its effect despite good compliance applying the eye drops.

Mercaptamine hydrochloride (0.55%) viscous eye drops are licensed for the treatment of corneal cystine crystal deposits in adults and children from 2 years of age with cystinosis. The viscous eye drops work the same way as the water-based formulations by reducing the build-up of cystine in the cornea, helping to reduce the volume and size of corneal crystals and improving symptoms. The gel formulation increases the amount of time the active ingredient has in contact with the eye. It also allows the dosing frequency to be reduced and the product to be stored at room temperature at which it remains stable for 7 days after first use.

A parallel piece of work is ongoing to agree through NHS England's governance process a service specification for the management of adults and children with Cystinosis.

The global incidence of cystinosis is estimated between 1 in 100,000 and 1 in 200,000 live births worldwide (Emma et al. 2014). Between 2 and 3 new cases of cystinosis are diagnosed in England each year. There are 159 patients (84 children and 75 adults) in England who are currently receiving treatment with systemic cysteamine to treat crystals in other areas of the body (this treatment is not effective in the eyes) and use the aqueous eye drops to treat corneal cystine crystal deposits (Cystagon, Orphan Europe, internal data). In addition, 6 patients are registered with the Cystinosis Foundation UK (CF UK) with the rare form of ocular (non-nephropathic) cystinosis and currently use the aqueous eye drops only.

3. Publication of consultation

The policy was published and sign-posted on NHS England's website and was open to consultation feedback for a period of 30 days closing on the 1st September 2019. Consultation comments have then been shared with the Policy Working Group to enable full consideration of feedback and to support a decision on whether any changes to the policy might be recommended.

Respondents were asked the following consultation questions:

- Has all the relevant evidence been taken into account?
- Does the impact assessment fairly reflect the likely activity, budget and service impact? If not, what is inaccurate?
- Does the policy proposition accurately describe the current patient pathway that patients experience? If not, what is different?
- Please provide any comments that you may have about the potential impact on equality and health inequalities which might arise as a result of the proposed changes that have been described?
- Are there any changes or additions you think need to be made to this document, and why?

4. Results of consultation

There were sixteen responses submitted to the public consultation from the following:

Clinician	8
Patient	1
Non-profit professional	1
Parent	5
Charity	1

The RNIB responded to the consultation that it strongly supports and welcomes the proposal for the routine commissioning of this treatment.

Fifteen of the respondents were content that all relevant evidence had been considered, one respondent was not sure if this was the case and offered personal evidence of their experience of the impact of using viscous vs aqueous eye drops.

Fifteen of the respondents were content that the impact assessment fairly reflects the likely activity, budget and service impact. One response offered personal experience of the impact of the condition on a day to day basis and commented on the wider social implications of improved eyesight. The Policy Working Group (PWG) noted that wider cost implications including social costs and benefits are not considered in the impact assessment presented.

The consultation asked if the policy proposition accurately describes the current patient pathway that patients experience. Fourteen of the respondents were content that the pathway

was appropriate and complete. One response described the ill health and multi-system nature of the condition but didn't offer any specific suggestions on changes needed to the pathway.

The consultation asked for comments about the potential impact on equality and health inequalities which might arise because of the proposed policy. Nine respondents made no comment.

One respondent commented on the pathway being for children aged from 2 years and that this might result inequality of access for the under 2 year olds. The policy proposition is written in accordance with the licensing of mercaptamine hydrochloride. A second comment was about younger children switching to the viscous eye drops at 2 years and concern that this wouldn't be tolerated. However, evidence presented has been that the viscous formulation is better tolerated that aqueous, this reasons for this are described in the policy proposition and evidence review.

Currently the product license is limited to 2 years and above, however there is a trial in under 2 year olds planned to start early 2020 (SCOB2 trial). The company have agreed to provide product and to continue to fund treatment beyond the trial period until the child reaches the age of 2 years. At this point they will either continue based on NHS England's decision to agree the policy or then switch to the Guys and St Thomas' product if the policy is not agreed. There are 2 centres that will undertake the trial (Manchester and Great Ormond Street) so, as an interim measure, patients within this young age group could be referred to either centre to enter the trial. NHS England could consider the policy position in the under 2 years age group when the trial outcomes are published.

Two families responded about the potential to improve quality of life given from the some of the practical considerations such as reduced frequency of dosing, and no need for refrigeration.

One family expressed concern about the potential for inequality of the eye drops are not made available across all the UK. This is out of scope of this policy.

A clinician commented about the high cost of the eye drops and the need for the company to extend the shelf life of the product.

One clinician commented that the proposed introduction of the new formulation of cystadrops will improve equality as it is more likely that a uniform and consistent dosage regimen will be provided to patients at an earlier stage than currently exists.

The one suggestion made to change the policy related to extending the age of treatment below 2 years.

5. How have consultation responses been considered?

Responses have been carefully considered and noted in line with the following categories:

- Level 1: Incorporated into draft document immediately to improve accuracy or clarity
- Level 2: Issue has already been considered by the CRG in its development and therefore draft document requires no further change
- Level 3: Could result in a more substantial change, requiring further consideration by the CRG in its work programme and as part of the next iteration of the document
- Level 4: Falls outside of the scope of the specification and NHS England's direct commissioning responsibility

The PWG felt that all responses had been considered already except one comment relating to equity across the UK which is out of scope for the PWG's consideration.

6. Has anything been changed in the policy as a result of the consultation?

No.

7. Are there any remaining concerns outstanding following the consultation that have not been resolved in the final policy proposal?

No.