

Treatment of Otitis Media with Effusion (OME)

Surgical Threshold Policy

Scope

This policy covers the treatment of Otitis Media with Effusion (OME). This policy does not apply to other indications or the treatment of emergency cases presenting in hospital due to complications of otitis media.

Policy

It is the responsibility of referring and treating clinicians to ensure compliance with this policy. Referral proforma should be attached to the patient notes to aid the clinical audit process and provide evidence of compliance with the policy. For patients not meeting the policy criteria, clinicians can apply for funding to the Exceptional Cases Panel by completing the exceptional funding section of the referral proforma.

Children

Primary Care

For children who have OME but show no signs of hearing loss provide reassurance that the condition tends to improve without intervention.

If there's suspicion of OME accompanied by hearing loss, refer for formal assessment, including tympanometry and hearing tests.

Secondary Care

The NHS C&P ICB will fund the treatment of OME in children where any of the following criteria are met:

- A period of 3 months of active observation with specialist audiology or ENT assessment and, wherever practical, trial of auto-inflation during this 3-month period; **AND**
- Persistent OME with bilateral hearing loss following audiology or ENT hearing reassessment at 3 months; **OR**
- Persistent OME with unilateral hearing loss following audiology or ENT hearing reassessment at 6 months.
- Funding will be agreed earlier than 3 months in children who are experiencing hearing difficulties that significantly affect their day-to-day living.

Funding will also be agreed if any of the following:

- Hearing loss of any level is associated with a significant impact on the child's developmental, social, or educational status.
- Severe tympanic membrane retraction is present.
- A second disability such as Down's Syndrome or cleft palate (insertion of ventilation tube should be offered only as an alternative to hearing aids).
- OME is overlaying sensorineural deafness or is delaying diagnosis or treatment with hearing aids or cochlear implants.

- In children who cannot undergo standard assessment of hearing thresholds where there is clinical and tympanographic evidence of persistent glue ear and where the impact of the hearing loss on a child's developmental, social, or educational status is judged to be significant.

It is also good practice to ensure glue ear has not resolved once a date of surgery has been agreed, with tympanometry as a minimum.

If symptoms do not improve after 3 months of watchful waiting, hearing aids may be offered prior to further treatment if tolerated or preferred or as an alternative to surgical intervention where surgery is contraindicated or not acceptable.

When planning grommets for the management of OME, consider adjuvant adenoidectomy unless assessment indicates an abnormality with the palate.

Adults

The NHS C&P ICB will fund the treatment of OME in adults where any of the following criteria are met:

- A period of 3 months of active observation with specialist audiology or ENT assessment; **AND**
- Significant negative middle ear pressure measured on two sequential appointments, with no resolution within 3 months of first presentation; **AND**
- During this time, auto-inflation should be offered as part of self-care; **AND**
- If these do not improve symptoms, hearing aids offered prior to further treatment as an alternative to surgical intervention.

Funding will also be agreed if any of the following:

- Acute suppurative otitis media documented and adequately treated by the GP recurring 3 or more episodes in 6 months, or 4 or more episodes in 12 months.
- Severe retraction of the tympanic membrane, who have not responded to non-surgical intervention over a period of 3 months if the clinician feels this may be reversible and reversing may help avoid erosion of the ossicular chain or the development of cholesteatoma.
- For the instillation of intratympanic steroids or gentamicin for the treatment of a sudden sensorineural hearing loss or Meniere's disease under the direct guidance of a Consultant Otologist.
- As part of major middle ear surgery (e.g. mastoidectomy).
- Hearing loss post-radiotherapy where hearing aids are not clinically appropriate.
- Unilateral hearing loss as part of postnasal space biopsy procedure, where deemed clinically necessary by the surgeon.
- Severe pain-due to air pressure changes when flying or in hyperbaric treatment. The severity and frequency of flying should be discussed with the patient and balanced against the possible complications associated with grommets.
- Re-insertion of grommets - where it has been inserted and fallen out- a 2nd or 3rd grommet may be inserted if they still meet one of the above criteria.

Smoking

Patients who smoke should be advised to attempt to stop smoking - see [stop smoking policy](#).

Rationale and Evidence

Acute Otitis Media (AOM) is one of the most common childhood illnesses and 80% of children will have experienced at least one episode before they are 3 years old (see reference 2) and 40% will have six or more recurrences by the age of seven years (see reference 3). Children are particularly at risk because of their horizontally placed Eustachian tube (provides ventilation to the middle ear) compared with adults (see reference 4), but as they get older these difficulties resolve.

Grommets for Otitis Media with Effusion in Children

The effectiveness of grommets in improving hearing and treating Otitis Media with Effusion (OME) shows short- and medium-term benefits, yet the long-term effects remain uncertain, as the available RCTs do not provide clear insights into when or to what extent grommets enhance hearing in individual children (see reference 5). 50% of children with a bilateral hearing loss of at least 20dB are likely to recover to normal with no treatment in the first 3 months after diagnosis (see reference 6) and watchful waiting may, therefore, be the most appropriate treatment in most children.

NICE recommended a period of observation of hearing loss (with accurate audiometry) and its impact on the child's development over 3 months (see reference 1) in order to determine whether resolution occurs or if further treatment was required.

Grommets for Acute Otitis Media

Some trials in children with Acute Otitis Media (AOM) suggest a short-term benefit of grommets but some do not (see references 7 and 8), and the quality of the evidence is low. The best treatment for recurrent AOM without effusion is currently uncertain (see reference 7).

Cleft Palate and Down's Syndrome

Children with cleft palate are particularly susceptible to OME because of the impaired function of the Eustachian tube that results from the palatal anomaly, which in turn leads to a failure of middle ear ventilation. Similarly, children with Down's Syndrome have a high incidence of OME, partly because of their impaired immunity and mucosal abnormality, with resulting susceptibility to ear infection. These groups of children need particular surveillance for OME so that proper action can be taken.

Grommets for Otitis Media in Adults

A review of the treatment of Eustachian tube dysfunction (a cause of otitis media) in adults found no RCTs of surgical interventions and no studies of any kind investigating the effectiveness of grommet insertion for Eustachian tube dysfunction (see reference 9). There are a number of other pathologies that may be related to otitis media in adults (see reference 10). Since evidence of the effectiveness of grommets in adults is lacking, evidence from children may be considered applicable and the same policy applied.

Adenoidectomy in Addition to Grommets

The effectiveness of adenoidectomy in children with OME is uncertain, as it may decrease the persistence of OME, but the impact on hearing remains unclear (see reference 11). In RCTs where adenoidectomy with grommets has been compared with grommets alone in children with AOM, most show no additional benefit of adenoidectomy when done in conjunction with grommet surgery (see references 12 to 17). However, according to NICE guidance, when planning for grommet insertion for OME management, adjuvant adenoidectomy should be considered unless palate abnormalities are identified. Hearing is paramount for assessing interventions in children with OME, yet evidence on this outcome is limited and of low quality; however, adenoidectomy with or without grommets showed potential to reduce OME presence or persistence, leading the NICE committee to suggest that if adenoidectomy improves OME, it might also benefit hearing. (see reference 1).

Glossary

Acute Otitis Media:	Inflammation in the middle ear, associated with effusion (fluid) and accompanied by the rapid onset of symptoms and signs of an ear infection.
Adenoidectomy:	Surgical removal of the adenoids. Adenoids are an overgrowth of tissue at the back of the throat, into which the nose opens.
Auto-inflation	Auto-inflation refers to the opening of the eustachian tube by blowing up a balloon with the nose, which raises intranasal pressure.
Down's Syndrome:	A genetic disorder in which the affected person usually carries an extra chromosome - 47 instead of the usual 46.
Effusion:	Collection of fluid within the middle ear space.
Grommet:	A small bobbin-shaped tube used to keep open the incision made in the ear drum in the treatment of secretory otitis media. It acts as a ventilation tube by allowing the Eustachian tube to recover its normal function.
Otitis Media with Effusion:	Collection of fluid within the middle ear, but not associated with symptoms and signs of an acute ear infection. Also known as 'glue ear.'
Otorrhoea:	Discharge from the ear.
Tympanosclerosis:	A pathological hardening or thickening of the ear drum.

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