

Chronic Suppurative Otitis Media in adults in the United Kingdom & Netherlands - building a consensus for development

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Globally approximately 31 million people develop chronic suppurative otitis media (CSOM) each year.¹ The treatment pathway for these patients is unclear and there is no consensus on the preferred treatment. This white paper discusses the outcomes from a first consensus meeting organized between professionals who work with patients suffering from CSOM. The purpose of this meeting was to discuss recommendations for referral and agree upon important factors that can improve hearing outcomes for patients. It describes a uniform referral pathway with the goal of increasing patients' control over their health and improving outcomes towards a dry ear with good hearing.

Background

Chronic suppurative otitis media (CSOM) is defined as a persistent infection of the middle ear with a perforated tympanic membrane draining exudate for more than six weeks, and is often associated with cholesteatoma. Approximately 11% of the global population is affected by acute otitis media (AOM) every year.^{1,2} Of those affected, approximately 4.4% develop CSOM.² The incidence of CSOM across the world varies dramatically. High income countries have a relatively low prevalence, whereas in low income countries CSOM is quite common and the prevalence may be up to three times as large.¹

According to the World Health Organization (WHO) CSOM is a primary cause of hearing loss in children.³ Adults with recurrent episodes of CSOM have higher risks of developing conductive and sensorineural hearing loss. Globally, approximately 141 million people have a mild conductive hearing loss due to otitis media.⁴

With the global impact on hearing health due to CSOM in mind, Cochlear has launched a health promotion plan to support the investigation into what could be done to improve the diagnosis and outcome for individuals with conductive and mixed hearing loss due to CSOM. Specific focus was directed to investigate the hearing solution that could provide the best outcomes for the individual patients.

As a first step, a multi-disciplinary group of British and Dutch clinicians and researchers met in September 2016 to review the challenges in the current management pathways for adult patients with CSOM and in particular the management of CSOM associated hearing loss. The objectives of the meeting were:

- Define the challenges in managing patients with CSOM
- Discuss best practice in assessing and managing hearing loss in patients with CSOM
- Make recommendations regarding a unified referral pathway for patients with CSOM related hearing loss.

The scope of discussion was to review the situation of adult CSOM patients in a western European context. Children and cholesteatoma were beyond the remit of these discussions. The delegates of the meeting were all professionals involved in the medical and audiological care of patients with CSOM, or researchers in the field, from the UK and The Netherlands, hence the focus on this particular group of patients.

Clinical challenge with CSOM

Adults with CSOM in Western Europe are seen in both primary and secondary care settings, and in community hearing services, with a range of professionals involved.

Due to a lack of patient pathway guidelines and limited evidence base for the management of adults with CSOM, the current patient journey is highly variable. Patients often have to make repeat visits and are provided a range of local and systemic treatments focused on achieving a dry ear both in primary and/or secondary care.⁵ The management of CSOM related hearing loss has a tendency towards being overlooked;

with patients having to cope with undiagnosed hearing loss or difficulties with hearing aid use, and an ongoing, unstable, often cyclical condition.

Through the consensus meeting, it was identified that there is a need and an opportunity to define a clear and comprehensive clinical referral pathway across different healthcare settings and professionals. The group postulated that timely referrals and consistent follow-up would help minimize the number of appointments and interventions required, benefiting the patients and reducing costs.

Creating a uniform referral pathway for adult CSOM patients

The main challenges in the referral pathway include getting new patients into the pathway and ensuring that patients with recurrent issues are identified, treated appropriately and taken out of vicious circles of recurring infections. It was agreed that the goal of all CSOM treatment is to achieve a dry, care-free ear with optimal hearing. This goal should be kept in mind when different professionals are assessing and managing patients across healthcare settings.

Hearing care professionals should evaluate the status of each patient.

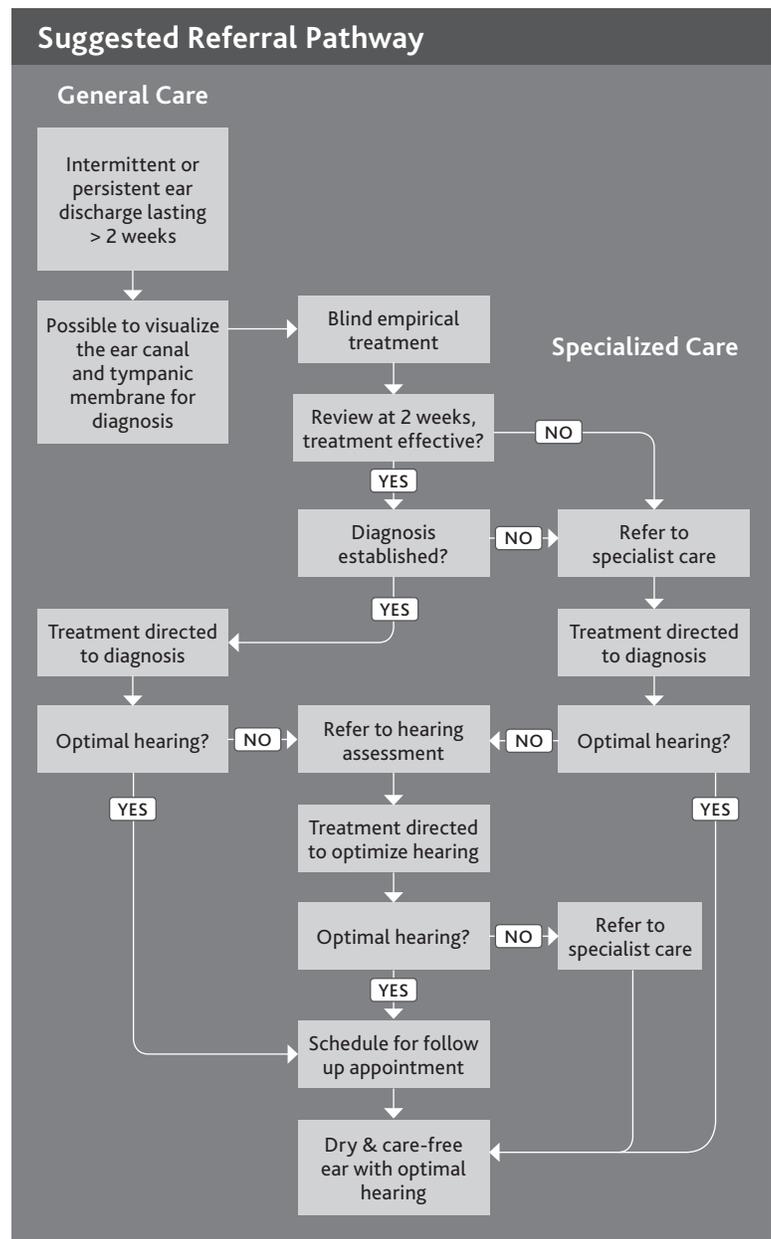
The following questions may be helpful to complete a diagnosis:

- Is the ear dry?
- Is the ear free of disease/safe?
- Is the hearing rehabilitation optimized?
- Do any of the above-mentioned questions indicate a need for more/surgical treatment?

Questions to ask patients include:

1. How long has the ear been discharging?
2. How much care does your ear require?
 - Do you have to take particular measures to prevent your ear from discharging?
 - Do you protect your ear when having a bath/shower, what happens if not?
3. Have your symptoms prevented you from taking part in certain activities?
4. How is your hearing?
 - Is your hearing affecting how you interact with people?
 - If you have a hearing aids, have you been able to wear them?

These simple sets of questions will help identify patients in need of medical or surgical care who can be referred to either a general practitioner or ENT for assessment and treatment, as opposed to patients in need of a hearing assessment who can be referred to an audiology department.



Suggested referral pathway addressing the ear infection and potential hearing loss making sure to follow up to identify any recurring problems.

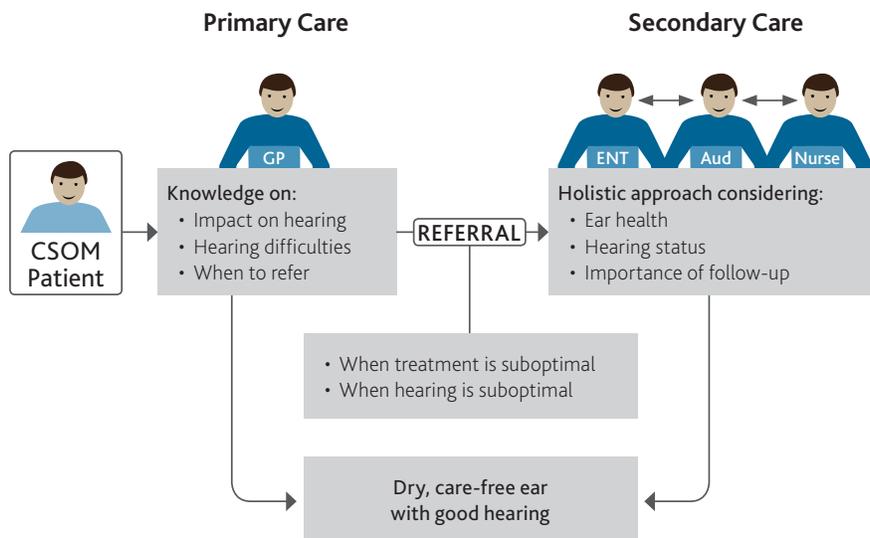
Specific needs within the patient pathway

Primary Care: GPs may need to be informed and supported to refer to secondary care when appropriate. There needs to be awareness about the impact of the health of the ear, and the difficulties of hearing if left untreated. According to the current referral guidelines, the patient has to be referred when the ear has been discharging for more than two weeks, or if the patient is having recurring episodes both with and without hearing complaints.

Secondary Care: In ENT, audiology centers, hearing-aid dispensers and with ear care nurses there needs to be a holistic approach to make sure that all professionals are considering both the health of the ear and the hearing status

appropriately. The focus should be patient centric and not be reliant on professional groups, ensuring that patients are not caught in ongoing vicious circles. The hearing status of the patient should be assessed and patients in need of aiding should be referred for appropriate treatment without delay.

Audiologists and acousticians are important professional groups within the pathway to ensure that the management of hearing difficulties and access to potential hearing solutions is secured. Within departments, between hospitals, and across regions the aim should be that all audiologists recognize the needs of this patient group, and give them access to appropriate assessments, referrals and treatments.



Hearing solutions for CSOM

Once a patient's hearing needs have been established it is equally important to consider what form of hearing rehabilitation is appropriate and optimal. Choosing whether to use air conduction hearing aids (including knowing when venting can help) or bone conduction devices (both for temporary needs, and surgically implanted permanent solutions) is an important decision. Information needs to be provided to help ENT professionals and audiologists make an informed choice of the best device for each individual patient.

In patients with recurring infections, air conduction hearing aids can aggravate the situation as they limit the ventilation of the ear canal. Bone conduction devices have been proven to be the optimal hearing solution for these patients, offering cost savings over expensive repeat visits and treatments for this group of patients.⁵ These devices also provide consistent hearing regardless of the status of the ear infections and save time for the patients; leading to an increase in quality of life.^{6,7}

It was agreed that awareness of, and access to potential hearing solutions need to be a high priority in the pathway. Patients should be able to learn about all possible hearing treatment options and have access to these devices regardless of whether or not their local hospital offers the hearing solution that would be the best fit for their individual condition. Due to limited awareness of the treatment alternatives, it is an aim to have more education available to all the professionals concerned in this pathway. Clinicians also need to know what treatments are funded and financially advantageous. There is a need for more data to show cost minimization, and cost/benefit. Health economic outcomes are very important to gather and this will be a long-term aim of this group. A range of systematic reviews on CSOM are planned to gather more evidence on the optimal treatment for CSOM and to define a gap analysis in the evidence base.

Summary

In the consensus meeting it was agreed that the key priority should be to provide treatment for ear infections in conjunction with hearing rehabilitation. It was deemed important to consider alternative hearing strategies e.g. bone conduction devices for those struggling with air conduction hearing aids in combination with CSOM infections. The aim should be to improve outcomes and enable patients with CSOM to get out of vicious circles of recurring infections.

To achieve this goal there is a need to define uniform referral and treatment pathways. This will help patients avoid repetitive cycles of ineffective treatments. Information is needed to empower patients to find help, and be aware of treatment options. For health care professionals, the emphasis should be on supporting and informing their peers, to know when and to whom to refer, and to consider not only treating the discharging ear but also focus on the hearing status. Recommendations should be based on clinical evidence and studies to determine the outcomes and cost efficiency of treatments should be prioritized.

In essence, there is a need to improve the awareness amongst patients and professionals that CSOM is closely linked to hearing loss, drive research towards a uniform treatment pathway and develop informative materials for patients and professionals. This will improve the quality of life of patients suffering from CSOM and will help to reach the goal of a dry, care-free ear with good hearing for all.

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