



Ear wax removal: Help patients help themselves

Do-it-yourself ear wax removal is safe and simple—and a timesaver for patients as well as physicians.

PRACTICE CHANGER

Suggest that patients use drops to soften the wax in their ears and a bulb syringe to remove it. Reassure them that the process is safe, easy, and effective.¹

B: A single well-designed randomized controlled trial (RCT)

Coppin R, Wicke D, Little P. Randomized trial of bulb syringes for ear-wax: impact on health service utilization. *Ann Fam Med.* 2011;9:110-114.

ILLUSTRATIVE CASE

Alarmed because she recently noticed a decrease in her hearing, a 61-year-old woman requests an urgent visit. When you examine her ears, you find bilateral occlusion with cerumen. The patient says that she's needed office irrigation multiple times in the past and wants to know how to clean her ears at home to prevent wax build-up. What can you recommend?

Cerumen impaction is associated with a variety of symptoms, including hearing loss, pain, itching, and a feeling of fullness, as well as dizziness, tinnitus, and a reflex cough.² Eight million ear irrigations are carried out in US medical offices each year.³ Yet there is no reason to believe (and little evidence to suggest) that home irrigation would not be an effective approach.

Drops and wax removal kits are widely available

Patients can purchase wax-softening drops. Carbamide peroxide substances, for instance,

are sold under a variety of trade names, such as Auraphene-B, Debrox, Mollifene, and Murine Ear Drops. Mineral oil is a common home remedy, as well, although it has no official indication for ear wax removal.

Home irrigation kits, which typically include a bulb syringe, are sold over the counter and cost anywhere from \$3 to \$400.⁴ These prices represent the varying degrees of automation available for cerumen removal, from wax-softening drops and a bulb syringe packed together in a "kit" to systems that connect to the faucet for continuous water pressure and include a temperature sensor. Most kits cost less than \$20.

Bulb syringe irrigation is generally considered safe and effective. But it has never been compared with other methods⁵ and clinicians rarely recommend it, we suspect because of a lack of knowledge of its safety and efficacy.

STUDY SUMMARY

Every 2 patients given wax removal kits = 1 less office visit

Coppin et al conducted a blinded study of adults with cerumen impaction to assess the efficacy of bulb syringe irrigation compared with standard care.¹ The authors recruited patients from 7 practices in England. To be eligible for the study, patients had to have symptoms of blockage and visible occluding ear wax. The researchers assessed 434 patients and randomized 237; of these, only 3 were lost to follow-up.

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CONTINUED

➤ This RCT is the first to provide evidence that some patients do not need to spend time (or money) on an office visit for ear wax irrigation.

Using concealed allocation, a nurse randomly gave all the patients identical-looking envelopes. Half of the envelopes contained ear drops and instructions in usual care (ear irrigation by a clinician after the use of ear drops). The other half contained ear drops and a 25-mL ear bulb syringe (not available over the counter in the United Kingdom). Instructions provided with the syringes indicated that they could be cleaned and reused, but did not specifically instruct patients as to when to use them. Baseline characteristics were balanced between the 2 groups.

After 2 weeks, the nurse reassessed the patients and irrigated the ears of any patient with evidence of occlusion. The authors used National Health Service computerized records to track ear wax-related visits over the next 2 years for participants in both groups.

During the 2-year follow-up, more of the patients in the control group returned to the clinic with episodes of ear wax compared with those in the intervention group (73% vs 60%; risk ratio=1.21; 95% confidence interval [CI], 1.01-1.37; $P=.038$).

The researchers also found that, among the returnees, patients in the control group had, on average, 50% more visits. That is, for every 2 patients who were given a bulb syringe, there was one less visit (incidence rate ratio=1.79; 95% CI, 1.05-3.04; $P=.032$). A secondary analysis found no significant difference in adverse events between the intervention and the control groups.

WHAT'S NEW

Do-it-yourself wax removal is now evidence-based

The American Academy of Otolaryngology-Head and Neck Surgery Foundation's 2008 clinical practice guideline—based primarily on expert opinion—recommends clinician irrigation only, due to a lack of quality evidence.³

This RCT is the first to provide evidence that some patients do not need to spend time (or money) on a medical visit for ear wax irrigation. The fact that patients who were given bulb syringes had fewer visits, not only for the initial wax removal but also for subsequent episodes of cerumen impaction, suggests that

they were self-treating at home without an increase in adverse effects.

CAVEATS

Home irrigation is not for every patient

This intervention cannot be extrapolated to young children or to others who are unable to perform self-irrigation. It is possible that if a patient self-irrigates without prior visualization by a clinician, a contraindication such as ruptured tympanic membrane or active infection could be present.

This study was performed in England, where bulb syringes are not readily available. It is possible that this intervention may be less effective at avoiding cerumen-related office visits in the United States, especially if patients are already using bulb syringes for this purpose. Finally, we note that 60% of the patients in the home irrigation group did return for a visit for cerumen removal during the 2-year follow-up, so home irrigation did not entirely replace office irrigation.

CHALLENGES TO IMPLEMENTATION

Getting buy-in from patients

The greatest challenge to implementation might be convincing patients that they can safely perform self-irrigation at home. This may require written patient instructions, preferably with illustrations. The steps will need to be written clearly and include details such as recommended ear wax softeners, water temperature, use of peroxide (or not), warning symptoms, and when to contact a physician.

A healthy physician-patient relationship, and perhaps, giving patients the bulb syringe and instructions in using it before they leave the clinic, will help to overcome patient hesitancy. Physician inertia may also be a problem, but it should be easy to put this new information into practice once provider resistance is overcome. **JFP**

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