

# Anaesthetic–analgesic ear drops to reduce antibiotic consumption in children with acute otitis media: the CEDAR RCT

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## Plain English summary

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## Plain English summary

**E**ar infections are common in children < 10 years of age, with 40% of these children suffering from an ear infection at least once per year. During the infection, germs multiply in the confined space of the middle ear, resulting in a build-up of pressure that pushes on and stretches the ear drum. This causes severe pain and distress to the child, which in turn leads to disrupted family life.

Although there is world-class evidence showing that antibiotics do not help, and the National Institute for Health and Care Excellence advises against their use, > 85% of UK children with middle ear infections (acute otitis media) are prescribed an antibiotic, which is a higher percentage than for any other childhood infection. Antibiotics do not treat the child's pain and, in most cases, they do not help to treat the infection (because many ear infections are caused by viruses that do not respond to antibiotics), but they can cause side effects (such as diarrhoea) and increase the problem of antibiotic resistance, which is a major public health concern.

The Children's Ear Pain Study (CEDAR) wanted to find out whether or not painkilling ear drops [benzocaine–phenazone otic solution (Auralgan®) currently manufactured by Pfizer Consumer Healthcare (Pfizer Inc., New York, NY USA)] can, by treating children's ear pain, reduce the number of parents giving their children antibiotics for acute otitis media. Children were given the painkilling drops, placebo (dummy) drops or usual care. The study found that, if the children were given the painkilling drops, significantly fewer of them were given antibiotics.

Unfortunately, there were not enough children who took part in the study to change advice on how doctors treat ear infections. However, these results suggest that ear drops help reduce unnecessary antibiotic use and should be investigated in a further larger study.



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