Otitis externa following aural irrigation linked to instruments contaminated with *Pseudomonas aeruginosa*.

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**BACKGROUND:** The incidence of acute otitis externa, an infection of the external auditory canal, in general practitioners' (GP) practices in The Netherlands is about 14 per 1000 patients per year. In early 2010, one of the authors noted that some of the otitis externa patients in his GP practice had undergone cerumen removal by ear syringing a few weeks earlier. Bacterial cultures of samples taken from the instruments used showed contamination of an ear syringe by *Pseudomonas aeruginosa*. From then on, *P. aeruginosa* isolates from patients' ears were stored in the laboratory.

**AIM:** It was assessed whether cross-contamination with *P. aeruginosa* between patients in the same GP practice could occur through the use of contaminated ear lavage instruments.

**METHODS:** From 17 GP practices, the otolaryngology Outpatient Department and the Out-of-Hours GP Service, instruments used for examining and cleaning the outer ear were swabbed. Strains of *P. aeruginosa* cultured from the instruments were genotyped together with isolates of patients registered in the same practice.

**FINDINGS:** In four practices where contaminated instruments were found, genotyping showed similarity between *P. aeruginosa* strains isolated from a patient and the ear syringe, and/or between strains of different patients in the same practice.

**CONCLUSIONS:** Transmission of *P. aeruginosa* from ear lavage instruments to patients appears to occur with otitis externa as a result. Together with the Infection Control Unit of our hospital we have formulated recommendations for the appropriate cleaning, disinfection and storage of re-usable ear lavage instruments for the GP practices to implement.

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