

## **Antiseptic treatment of chronic suppurative otitis media (CSOM) using a novel bellows pipette (EarClean)**

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### **Background**

Worldwide, only a small portion of patients with CSOM receive care from ENT specialists. In Angola, a country with 30 million inhabitants, there are just 40 specialists. The shortage and medical need inspired the development of a treatment approach for CSOM aimed at resource-limited communities. A pilot study was performed at the ENT department of Hospital Josina Machel in Luanda.

### **Method and Material**

A bellows pipette, named EarClean, was devised to enable suction and rinsing of the ear canal. A 2% vinegar was used as an antiseptic. The pipette was first used to aspirate discharge from the ear canal. A separate pipette was thereafter used to rinse the ear with vinegar, which was flushed into the canal. The procedure was repeated 2-4 times daily until the discharge ceased.

### **Results**

Twenty-four patients were treated including 14 with bilateral disease. The median age was 12 years (range 5-30); there were 14 males and 10 females. In 80% of cases, the discharge ceased within two weeks. One 7-year-old boy developed fever, earache and swelling behind the ear one week later. He was diagnosed with mastoiditis and treated with intravenous antibiotics and postauricular incision. Mastoidectomy was not performed due to lack of resources.

### **Conclusion**

Further research is needed to assess whether the use of EarClean and vinegar, if implemented in primary health care, could reduce the incidence of severe complications from chronic ear infections. There is also a pressing need to strengthen ear surgery capacity at the clinic.