Silver diamine fluoride

Section: 30. Dental preparations

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**Indication**
Dental caries

**ICD11 code**: DA08.0

**Medicine type**
Chemical agent

**List type**
Core

**Formulations**
Local > Dental > Solution: 38% w/v

**EML status history**
First added in 2021

**Sex**
All

**Age**
Also recommended for children

**Therapeutic alternatives**
The recommendation is for this specific medicine

**Patent information**
Read more about patents.

**Wikipedia**
Silver diamine fluoride

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**Expert Committee recommendation**

The Expert Committee noted that dental caries of permanent teeth affects 2.3 billion people worldwide and more than 530 million children suffer from caries of primary teeth. Inequalities throughout the life course and across populations in low-, middle- and high-income countries were also noted, with the highest burden in countries with limited resources for prevention and control. The Expert Committee also noted that primary oral health care in low-resource settings is often limited by a lack of essential supplies such as filling materials or caries preventive agents, a situation which leads to an unnecessary focus of treatment on tooth extraction. The application of silver diamine fluoride is minimally invasive, pain free and particularly suitable for people unable to tolerate conventional invasive dental treatment, such as young children, elderly people, and patients with mental health conditions who may have difficulty cooperating. The Expert Committee considered the evidence included in the application that showed silver diamine fluoride was effective in arresting dental caries in over 80% of cases, being more effective than other management options or placebo. In addition, with a 2-year follow-up, the application of silver diamine fluoride significantly reduced the development of new dentinal carious lesions compared with placebo, no treatment or fluoride varnish. The Committee noted that silver diamine fluoride also has antibacterial effects (from the silver) and remineralizing effects (from the fluoride). Evidence on the benefits of silver diamine fluoride in the prevention of dental caries came from a meta-analysis of two small trials that showed positive effects of silver diamine fluoride compared with placebo or no treatment. However, the included trials had important limitations in study design and implementation, reducing the Committee’s confidence in the estimates of the benefit of silver diamine fluoride in caries prevention. The Committee took into account that topical silver diamine fluoride is considered a cost-effective method to prevent and manage dental caries. Moreover, since its application is possible by community health workers or other trained non-dentist personnel, the additional implementation costs of programmes using silver diamine fluoride are much lower than dentist-led fluoride applications. The Expert Committee, therefore, recommended the listing of silver diamine fluoride on the core list of the EML and EMLc in the new section for dental preparations for the treatment of dental caries on the basis of its relevant benefits in arresting dental caries. The Committee considered that inclusion of silver diamine fluoride on the Model List, in alignment with WHO technical guidance on oral health, will support countries to deliver an expanded range of interventions that will benefit the oral health of their populations. The Committee did not recommend the listing of silver diamine fluoride for use in prevention due to uncertainty in the estimates of benefit. The Committee would welcome new evidence supporting its use in prevention of dental caries for consideration in the future.