TITLE: Fluoride Tablets in Schools: Clinical Effectiveness and Safety

DATE: 05 October 2009

RESEARCH QUESTIONS:

1. What is the clinical effectiveness of fluoride tablets in school-aged children?

2. What are the adverse events associated with fluoride tablets in school-aged children?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 3, 2009), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international health technology agencies, and a focused Internet search. The search was limited to English language articles published between 2004 and September 2009. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, controlled clinical trials, observational studies, and safety data. Internet links were provided, where available.

RESULTS:

HTIS reports are organized so that the higher quality evidence is presented first. Therefore, health technology assessment reports, systematic reviews, and meta-analyses are presented first. These are followed by randomized controlled trials, controlled clinical trials, and observational studies.

The literature search identified one systematic review and three observational studies (one observational study has separate outcomes described in two articles) regarding the clinical effectiveness and safety of fluoride tablets for school-aged children. No health technology assessments, randomized controlled trials, or controlled clinical trials were identified.

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Health technology assessments

No literature identified

Systematic reviews and meta-analyses

1. Ismail AI, Hasson H. Fluoride supplements, dental caries and fluorosis: a systematic review. *J Am Dent Assoc.* 2008 Nov;139(11):1457-68. PubMed: PM18978383
Full text available from: http://jada.ada.org/cgi/reprint/139/11/1457

Randomized controlled trials

No literature identified

Controlled clinical trials

No literature identified

Observational studies

- 2. Momeni A, Hartmann T, Born C, Heinzel-Gutenbrunner M, Pieper K. Association of caries experience in adolescents with different preventive measures. *Int J Public Health*. 2007;52(6):393-401. PubMed: PM18369002
- 3. Pieper K, Born C, Hartmann T, Heinzel-Gutenbrunner M, Jablonski-Momeni A. Association of preventive measures with caries experience expressed by outcome variables. *Schweiz Monatsschr Zahnmed*. 2007;117(10):1038-44. PubMed: PM17987878
- 4. Wennhall I, Mårtensson EM, Sjunnesson I, Matsson L, Schröder U, Twetman S. Caries-preventive effect of an oral health program for preschool children in a low socioeconomic, multicultural area in Sweden: results after one year. *Acta Odontol Scand*. 2005 Jun;63(3):163-7. PubMed: PM16191910
- 5. Bottenberg P, Declerck D, Ghidey W, Bogaerts K, Vanobbergen J, Martens L. Prevalence and determinants of enamel fluorosis in Flemish schoolchildren. *Caries Res.* 2004 Jan;38(1):20-8. <u>PubMed: PM14684973</u>

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