TITLE: Lidocaine-prilocaine cream (EMLA) versus amethocaine/tetracaine gel (Ametop) and Maxeline for Patients Requiring Local Anesthetic: Clinical-Effectiveness, Cost-Effectiveness, and Guidelines

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RESEARCH QUESTIONS:
1. What is the clinical-effectiveness of EMLA, Ametop, and Maxeline for patients requiring local anesthetic?
2. What is the cost-effectiveness of EMLA, Ametop, and Maxeline for patients requiring local anesthetic?
3. What are the guidelines for best use of EMLA, Ametop, and Maxeline for patients requiring local anesthetic?

METHODS:

A limited literature search was conducted on key health technology assessment resources, including PubMed, the Cochrane Library (Issue 2, 2009), University of York Centre for Reviews and Dissemination (CRD) databases, ECRI, EuroScan, international HTA agencies, and a focused Internet search. Results include articles published between 2004 and May 2009 and are limited to English language publications only. Filters were applied to limit the retrieval to health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, controlled clinical trials, economic studies, and guidelines. Internet links are 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, economic evaluations, and evidence-based guidelines.
Two systematic reviews and 15 randomized controlled trials were identified regarding the clinical-effectiveness of EMLA, and Ametop for patients requiring local anesthetic; no relevant health technology assessments or controlled clinical trials were identified. One economic evaluation was identified regarding the cost-effectiveness of EMLA and Ametop for patients requiring local anesthetic. No relevant guidelines for the best use of EMLA or Ametop for patients requiring local anesthetic were identified from the literature search results. No evidence of any type was identified regarding Maxeline. Additional articles of interest may be found in the appendix.

**Health technology assessments**
No literature identified

**Systematic reviews and meta-analyses**

   Note: see Topical Anesthetics, page 5


**Randomized controlled trials**


**Controlled clinical trials**

No literature identified

**Economic evaluations**

Guidelines and recommendations
No literature identified

PREPARED BY:
Michelle Clark, BSc, Research Assistant
Charlene Argáez, MLIS, Information Specialist
Health Technology Inquiry Service
Email: htis@cadth.ca
Tel: 1-866-898-8439
APPENDIX – FURTHER INFORMATION:

Observational studies


Review articles


Additional references

30. *Association of topical anesthetics with serious adverse events [important safety information].* Ottawa: Health Canada; 2009.