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Acknowledgments:

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About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada’s health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

Funding: CADTH receives funding from Canada’s federal, provincial, and territorial governments, with the exception of Quebec.
Research Question
What is the clinical evidence regarding the use of nicotine replacement products in children?

Key Findings
No relevant literature was identified regarding the safety and use of nicotine replacement products in children.

Methods
A limited literature search was conducted on key resources including PubMed, The Cochrane Library (2018, Issue 10), University of York Centre for Reviews and Dissemination (CRD) databases, Canadian and major international health technology agencies, as well as a focused Internet search. No filters were applied to limit the retrieval by study type. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2013 and October 21, 2018. Internet links were provided, where available.

Selection Criteria
One reviewer screened citations and selected studies based on the inclusion criteria presented in Table 1.

Table 1: Selection Criteria

<table>
<thead>
<tr>
<th>Population</th>
<th>Children (12 years and younger) who ingest or use nicotine replacement products</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intervention</td>
<td>Nicotine-based smoking cessation products (e.g. gums, lozenges, inhalers, patches)</td>
</tr>
<tr>
<td>Comparator</td>
<td>None</td>
</tr>
<tr>
<td>Outcomes</td>
<td>Harms and safety (e.g. seizures, coma, respiratory failure, excess saliva, nausea, vomiting, loss of appetite, dehydration, dizziness, tremors, anxiety, restlessness, confusion, hallucinations, changes in heart rate, changes in blood pressure)</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized safety studies</td>
</tr>
</tbody>
</table>
Results

Rapid Response 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 and non-randomized safety studies.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified regarding the safety and use of nicotine replacement products in children.

References of potential interest are provided in the appendix.

Health Technology Assessments

No literature identified.

Systematic Reviews and Meta-analyses

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

No literature identified.
Appendix — Further Information

Systematic Reviews and Meta-Analyses – Tamper Resistant Packaging


Review Articles

*Transdermal Patches*


*Signs of poisoning*