Intravenous Access and Injections Through Tattoos: Safety and Guidelines
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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 Questions
1. What is the clinical evidence regarding the safety of initiating intravenous access through a tattoo?

2. What is the clinical evidence regarding the safety of an intramuscular injection through a tattoo?

3. What are the evidence-based guidelines for injections or initiating intravenous access through a tattoo?

Key Findings
No relevant literature was identified regarding the safety of initiating intravenous access or intramuscular injection through a tattoo.

Methods
A limited literature search was conducted on key resources including PubMed, The Cochrane Library, University of York Centre for Reviews and Dissemination (CRD), 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, 2007 and July 28, 2017. 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>Adult inpatients and outpatients with tattooed skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interventions</td>
<td>Q1,Q3: Intravenous access initiation through tattooed skin</td>
</tr>
<tr>
<td>Comparator</td>
<td>Q1: Intravenous access initiation injections through non-tattooed skin</td>
</tr>
<tr>
<td>Study Designs</td>
<td>Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, evidence-based guidelines</td>
</tr>
<tr>
<td>Comparator</td>
<td>Q2: Intramuscular injection through non-tattooed skin</td>
</tr>
<tr>
<td>Comparator</td>
<td>Q3: No comparator</td>
</tr>
<tr>
<td>Outcome</td>
<td>Q1-2: Safety, clinical harms</td>
</tr>
<tr>
<td>Outcome</td>
<td>Q3: Guidelines</td>
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</tbody>
</table>
Results
No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies, or evidence-based guidelines were identified regarding the safety of initiating intravenous access or intramuscular injection through a tattoo.

References of potential interest are provided in the appendix.

Overall Summary of Findings
No relevant literature was identified regarding the safety of initiating intravenous access or intramuscular injection through a tattoo; therefore, no summary can be provided.

References Summarized
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.

Guidelines and Recommendations
No literature identified.
Appendix — Further Information

Registered Systematic Review Protocols

Clinical Practice Guidelines – Uncertain Methodology