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CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

i-Gel Supraglottic Airway Device versus the King Laryngotracheal Airway Device: Comparative Clinical Effectiveness

Service Line:	Rapid Response Service
Version:	1.0
Publication Date:	May 01, 2019
Report Length:	6 Pages

CADTH

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Cite As: i-Gel Supraglottic airway device versus the King Laryngotracheal airway device: comparative clinical effectiveness. Ottawa: CADTH; 2019 May. (CADTH rapid response report: summary of abstracts).

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Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Research Question

What is the comparative clinical effectiveness of the i-Gel Supraglottic airway device versus the King Laryngotracheal airway device in adult patients?

Key Findings

No relevant studies were identified regarding the comparative clinical effectiveness of the i-Gel Supraglottic airway device versus the King Larynogotracheal airway device in adult patients.

Methods

A limited literature search was conducted on key resources including PubMed, the Cochrane Library, 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 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, 2014 and April 24, 2019. 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

Population	Adult patients requiring oxygen
Intervention	i-Gel Supraglottic airway device
Comparator	King Laryngotracheal airway device
Outcomes	Clinical effectiveness, safety, ease of use
Study Designs	Health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, non-randomized studies

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 studies.

No relevant health technology assessments, systematic reviews, meta-analyses, randomized controlled trials, or non-randomized studies were identified.

References of potential interest are provided in the appendix.

Overall Summary of Findings

No relevant studies were found regarding the comparative clinical effectiveness of the i-Gel Supraglottic airway device versus the King Larynogotracheal airway device in adult patients; 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.

Appendix — Further Information

Health Technology Assessments

Research in Progress

1. Cluster randomised trial of the clinical and cost effectiveness of the i-gel supraglottic airway device versus tracheal intubation in the initial airway management of out of hospital cardiac arrest (Airways-2). In: NIHR journals library: research projects. Southampton (UK): National Institute for Health Research; 2014: https://www.journalslibrary.nihr.ac.uk/programmes/hta/12167102/#/. Accessed 2019 Apr 30.

Systematic Reviews and Meta-analyses

In Vitro Studies

2. Comparison of the i-Gel and other supraglottic airways in adult manikin studies: systematic review and meta-analysis. An J, Nam SB, Lee JS, et al. Medicine (Baltimore). 2017 Jan;96(1):e5801
Pubmed: PM28072732

Randomized Controlled Trials

In Vitro Studies

3. March JA, Tassey TE, Resurreccion NB, Portela RC, Taylor SE. Comparison of the i-Gel supraglottic and King laryngotracheal airways in a simulated tactical environment. *Prehosp Emerg Care*. 2018 May-Jun;22(3):385-389.
PubMed: PM29364743

Non-Randomized Studies

No Comparator

4. Martin-Gill C, Prunty HA, Ritter SC, Carlson JN, Guyette FX. Risk factors for unsuccessful prehospital laryngeal tube placement. *Resuscitation*. 2015 Jan;86:25-30.
PubMed: PM25447434

Review Articles

5. Michalek P, Donaldson W, Vobrubova E, Haki M. Complications associated with the use of supraglottic airway devices in perioperative medicine. BioMed Res Int. 2015:Article ID 746560.
https://www.hindawi.com/journals/bmri/2015/746560/

Additional References

6. Davenport C, Martin-Gill C, Wang HE, Mayrose J, Carlson JN. Comparison of the force required for dislodgement between secured and unsecured airways. Prehosp Emerg Care. 2018 Nov-Dec;22(6):778-781.
PubMed: PM29714527

7. Fales W, Vaughn T, Patel K, MacCallum C. A retrospective comparison of the King laryngeal tube and iGel airways in out-of-hospital cardiac arrest: initial experience in a single EMS system [poster]. Kalamazoo (MI): Western Michigan University; 2018: https://smacc.net.au/wp-content/uploads/2018/07/A-Retrospective-Comparison-of-the-King-Laryngeal-Tube.pdf Accessed 2019 Apr 30.