

CADTH RAPID RESPONSE REPORT: REFERENCE LIST

Electro-Surgery, Cautery, and Surgical Positioning for Surgical Patients in the Operating Room: Guidelines

Service Line: Rapid Response Service
Version: 1.0
Publication Date: March 8, 2019
Report Length: 5 Pages

Authors: Ke Xin Li, Mary-Doug Wright

Cite As: Electro-surgery, cautery, and surgical positioning for surgical patients in the operating room: guidelines. Ottawa: CADTH; 2019 Mar. (CADTH rapid response report: reference list).

Disclaimer: The information in this document is intended to help Canadian health care decision-makers, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. While patients and others may access this document, the document is made available for informational purposes only and no representations or warranties are made with respect to its fitness for any particular purpose. The information in this document should not be used as a substitute for professional medical advice or as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process. The Canadian Agency for Drugs and Technologies in Health (CADTH) does not endorse any information, drugs, therapies, treatments, products, processes, or services.

While care has been taken to ensure that the information prepared by CADTH in this document is accurate, complete, and up-to-date as at the applicable date the material was first published by CADTH, CADTH does not make any guarantees to that effect. CADTH does not guarantee and is not responsible for the quality, currency, propriety, accuracy, or reasonableness of any statements, information, or conclusions contained in any third-party materials used in preparing this document. The views and opinions of third parties published in this document do not necessarily state or reflect those of CADTH.

CADTH is not responsible for any errors, omissions, injury, loss, or damage arising from or relating to the use (or misuse) of any information, statements, or conclusions contained in or implied by the contents of this document or any of the source materials.

This document may contain links to third-party websites. CADTH does not have control over the content of such sites. Use of third-party sites is governed by the third-party website owners' own terms and conditions set out for such sites. CADTH does not make any guarantee with respect to any information contained on such third-party sites and CADTH is not responsible for any injury, loss, or damage suffered as a result of using such third-party sites. CADTH has no responsibility for the collection, use, and disclosure of personal information by third-party sites.

Subject to the aforementioned limitations, the views expressed herein do not necessarily reflect the views of Health Canada, Canada's provincial or territorial governments, other CADTH funders, or any third-party supplier of information.

This document is prepared and intended for use in the context of the Canadian health care system. The use of this document outside of Canada is done so at the user's own risk.

This disclaimer and any questions or matters of any nature arising from or relating to the content or use (or misuse) of this document will be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and all proceedings shall be subject to the exclusive jurisdiction of the courts of the Province of Ontario, Canada.

The copyright and other intellectual property rights in this document are owned by CADTH and its licensors. These rights are protected by the Canadian *Copyright Act* and other national and international laws and agreements. Users are permitted to make copies of this document for non-commercial purposes only, provided it is not modified when reproduced and appropriate credit is given to CADTH and its licensors.

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 are the evidence-based guidelines regarding electro-surgery for the treatment of surgical patients in the operating room?
2. What are the evidence-based guidelines regarding cautery for the treatment surgical patients in the operating room?
3. What are the evidence-based guidelines regarding surgical positioning for the treatment of adult surgical patients in the operating room?

Key Findings

Two evidence-based guidelines are identified regarding electro-surgery, cautery, and surgical positioning for surgical patients in the operating room.

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. Methodological filters were applied to limit retrieval to health technology assessments, systematic reviews, meta-analyses, and guidelines. Where possible, retrieval was limited to the human population. The search was also limited to English language documents published between January 1, 2014 and March 2, 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 | Q1,2: Pediatric and adult surgical patients Q3: Adult (17 years +1 day) anesthetized surgical patients |
| Intervention | Q1: Electro-surgery in the operating room setting Q2: Cautery in the operating room setting Q3: Positioning of the patient for surgery in the operating room setting |
| Comparator | Q1-3: No comparator |
| Outcomes | Guidelines |
| Study Designs | Health technology assessments, systematic reviews, meta-analyses, evidence-based guidelines |

Results

Rapid Response reports are organized so that the higher quality evidence is presented first. Normally, health technology assessment reports, systematic reviews, and meta-analyses are presented first; however, in reports where guidelines are primarily sought, the aforementioned evidence types are presented in the appendix.

Two evidence-based guidelines are identified regarding electro-surgery, cautery, and surgical positioning for surgical patients in the operating room.

Additional references of potential interest are provided in the appendix.

Guidelines and Recommendations

1. Wicklin SA. Guideline for positioning the patient. In: 2017 Guidelines for perioperative practice. Denver (CO): Association of periOperative Registered Nurses (AORN); 2017: <https://guidelines.ecri.org/brief/314> Free registration required. Accessed 2019 Mar 6
Guideline summary: <https://www.guidelinecentral.com/summaries/guideline-for-positioning-the-patient/#section-society>
2. Burlingame BL, Conner RL. Guideline for safe use of energy-generating devices. In: 2016 Guidelines for perioperative practice. Denver: Association of periOperative Registered Nurses (AORN); 2016: <https://guidelines.ecri.org/brief/309> Free registration required. Accessed 2019 Mar 6.

Appendix — Further Information

Systematic Reviews and Meta-analyses – Alternative Population

- Behan J, Higgins S, Wysong A. Safety of cochlear Implants in electrosurgery: a systematic review of the literature. *Dermatol Surg.* 2017 Jun;43(6):775-783.
[PubMed: PM28394864](#)

Review Articles

- Chui J, Craen RA. An update on the prone position: Continuing Professional Development. *Can J Anaesth.* 2016 Jun;63(6):737-767.
[PubMed: PM27072147](#)

Clinical Practice Guidelines – Methodology Not Specified

- Eder SP. Guideline implementation: energy-generating devices, part 1-electrosurgery. *AORN.* 2017 Mar;105(3):300-310.
[PubMed: PM28241952](#)
- Surgical diathermy. London (UK): Great Ormond Street Hospital, NHS Foundation Trust; 2014: <https://www.gosh.nhs.uk/health-professionals/clinical-guidelines/surgical-diathermy>. Accessed 2019 Mar 6

Additional References

- Burlingame BL. Guideline implementation: positioning the patient. *AORN.* 2017 Sep;106(3):227-237.
[PubMed: PM28865633](#)
- Jones SB, Munro MG, Feldman LS, Robinson TN, Brunt LM, Schwaitzberg SD, Jones DB, Fuchshuber PR. Fundamental use of surgical energy (FUSE): an essential educational program for operating room safety. *Perm J.* 2017;21:16-050.
<http://www.thepermanentejournal.org/files/2017/16-050.pdf>
- Hospital harm improvement resource: patient trauma. Ottawa (ON): Canadian Patient Safety Institute, Canadian Institute for Health Information; 2016: <https://www.patientsafetyinstitute.ca/en/toolsResources/Hospital-Harm-Measure/Documents/Resource-Library/HHIR%20Patient%20Trauma.pdf>. Accessed 2019 Mar 6