

# Rapid Synthesis

Identifying Policies, Financial Support  
and Professional Regulations for  
Medically Necessary Hair Removal

6 November 2018



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**Rapid Synthesis:  
Identifying Policies, Financial Support and Professional Regulations for  
Medically Necessary Hair Removal  
10-day response**

6 November 2018

#### McMaster Health Forum

The McMaster Health Forum's goal is to generate action on the pressing health-system issues of our time, based on the best available research evidence and systematically elicited citizen values and stakeholder insights. We aim to strengthen health systems – locally, nationally, and internationally – and get the right programs, services and drugs to the people who need them.

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#### Timeline

Rapid syntheses can be requested in a three-, 10-, 30-, 60- or 90-business-day timeframe. This synthesis was prepared over a 10-business-day timeframe. An overview of what can be provided and what cannot be provided in each of the different timelines is provided on McMaster Health Forum's Rapid Response program webpage ([www.mcmasterforum.org/find-evidence/rapid-response](http://www.mcmasterforum.org/find-evidence/rapid-response)).

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#### Conflict of interest

The authors declare that they have no professional or commercial interests relevant to the rapid synthesis. The funder played no role in the identification, selection, assessment, synthesis or presentation of the research evidence profiled in the rapid synthesis.

#### Merit review

The rapid synthesis was reviewed by a small number of policymakers, stakeholders and researchers in order to ensure its scientific rigour and system relevance.

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## KEY MESSAGES

### Questions

- What policies or guidelines exist in Canadian provinces to govern medically necessary hair removal?
- What is the extent and nature of financial support from Canadian provinces for medically necessary hair removal?
- What professional regulations for hair removal exist in Canadian provinces?

### Why the issue is important

- Hair removal is a necessary pre-surgical procedure prior to performing gender-affirming surgeries such as vaginoplasty and phalloplasty.
- A recent Canadian survey of 337 people who had undergone gender-affirming assessment and/or surgery found that 71% of people had their gender-affirming surgery at least partially publicly funded.
- However, even when surgery is publicly funded, most patients face significant out-of-pocket costs for travel, care and supplies following surgery, and for hair removal prior to surgery.
- Therefore, as provinces increasingly develop and implement programs for gender-affirming surgery, they are also seeking guidance on whether and how to regulate and financially support the range of services that people undergoing such surgeries require.
- This rapid response was requested to specifically identify policies, financial support and professional regulations used across Canada for medically necessary hair removal for gender-affirming surgery.

### What we found

- We conducted targeted searches for research evidence about the questions and conducted a jurisdictional scan by hand searching government and stakeholder websites for each province in Canada.
- We identified one non-systematic review which focused on laser hair removal for genital gender-affirming surgery and a recent high-quality systematic review which evaluated non-invasive anesthetic methods for dermatological laser procedures.
  - The non-systematic review indicated that complications can arise from using hair-bearing skin in genital gender-affirming surgery, there is limited data regarding hair-removal practices in preparation for genital gender-affirming surgeries, and that hair-removal techniques vary among dermatologists and other practitioners.
  - While not directly relevant to the synthesis, the systematic review identified variability in procedures for hair removal, including the types of and settings used for lasers, application time and pain outcomes.
  - The systematic review also noted that non-invasive anesthetic methods may be favourable compared to placebo or no anesthesia, and that better pain reduction was achieved through topical anesthetic drugs and pneumatic skin flattening as compared to skin cooling, but it also indicated that this evidence is insufficient to draw conclusions.
- Eight out of the 10 provinces were found to have provincial regulations for hair-removal equipment to help ensure workplace safety, and while Nova Scotia and Newfoundland and Labrador lack such provincial regulations, safety guidelines specified by Health Canada were still found to apply.
- Manitoba was found to be the only province which provides funding for hair removal as part of gender-affirming surgery, and other ‘medically necessary’ hair-removal services appear to largely be under the care of family physicians or dermatologists.
- The professional regulations for hair removal that we identified were for electrologists and estheticians, neither of which were found to be regulated health professions in any province except for Manitoba, in which they are considered a regulated trade requiring mandatory certification

## **QUESTIONS**

This rapid response addresses three questions:

- What policies or guidelines exist in Canadian provinces to govern medically necessary hair removal?
- What is the extent and nature of financial support from Canadian provinces for medically necessary hair removal?
- What professional regulations for hair removal exist in Canadian provinces?

## **WHY THE ISSUE IS IMPORTANT**

Hair removal is a necessary pre-surgical procedure prior to performing genital gender-affirming surgeries such as vaginoplasty and phalloplasty. For example, a recent literature review on the topic notes that the use of hair-bearing skin in gender-affirming surgical procedures can result in post-operative intra-vaginal and intra-urethral hair growth, which can lead to complications and lower satisfaction with the surgery.(1).

A recent Canadian survey of 337 people who had undergone gender-affirming assessment and/or surgery found that 71% of people had their gender-affirming surgery at least partially publicly funded.(2) However, the same survey noted that even when surgery is publicly funded, most patients face significant out-of-pocket costs for travel, care and supplies following surgery, and for hair removal prior to surgery.(2)

Therefore, as provinces increasingly develop and implement programs for gender-affirming surgery, they are also seeking guidance on whether and how to regulate and financially support the range of services that people undergoing such surgeries require. This rapid response was requested to specifically identify policies, financial support and professional regulations used across Canada for medically necessary hair removal for gender-affirming surgery.

## **WHAT WE FOUND**

Our searches for research evidence yielded one non-systematic review focused on laser hair removal for genital gender-affirming surgery, as well as a recent high-quality systematic review which evaluated non-invasive anesthetic methods for dermatological laser procedures (not just for gender-affirming surgeries). Our results from the jurisdictional scan are provided in Table 1 and briefly described below along with key findings from the two reviews. More details about the included systematic review are included in Appendix 1.

In identifying that complications can arise from using hair-bearing skin in genital gender-affirming surgery, the non-systematic review notes that there is also limited data regarding hair-removal practices in preparation

### **Box 1: Background to the rapid synthesis**

This rapid synthesis mobilizes both global and local research evidence about a question submitted to the McMaster Health Forum's Rapid Response program. Whenever possible, the rapid synthesis summarizes research evidence drawn from systematic reviews of the research literature and occasionally from single research studies. A systematic review is a summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select and appraise research studies, and to synthesize data from the included studies. The rapid synthesis does not contain recommendations, which would have required the authors to make judgments based on their personal values and preferences.

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This rapid synthesis was prepared over a 10-business-day timeframe and involved four steps:

- 1) submission of a question from a policymaker or stakeholder (in this case, the British Columbia Ministry of Health);
- 2) identifying, selecting, appraising and synthesizing relevant research evidence about the question;
- 3) drafting the rapid synthesis in such a way as to present concisely and in accessible language the research evidence; and
- 4) finalizing the rapid synthesis based on the input of at least two merit reviewers.

for genital gender-affirming surgeries.(1) Moreover, it indicates that the use of hair-removal techniques varies among dermatologists and other practitioners. For example, in male-to-female genital gender-affirming surgery, the hair removal required depends on the surgical procedure being used which can require some or all of scrotal hair be removed. For female-to-male genital gender-affirming surgery, the reviews note that permanent hair removal is only required for phalloplasty with urethral lengthening (construction of a neourethra). Moreover, the review also indicates that skin for this procedure is often taken from forearm radial artery or the anterolateral thigh with hair removal being required for both, and there is often less certainty with the location of skin taken for the latter.

While the systematic review was not directly relevant to the question, we included it given the limited research evidence identified.(3) The review found large variability in procedures used, including types of and settings for lasers, application time and pain outcomes assessed. The review indicated that evidence is insufficient to draw conclusions. However, it noted that non-invasive anesthetic methods seemed to be more positive as compared to placebo or no anesthesia, and that better pain reduction was achieved through topical anesthetic drugs and pneumatic skin flattening as compared to skin cooling.

In Table 1, we outline the details of our scan of policies/guidelines, extent and nature of financial support and professional regulations for medically necessary hair removal in Canadian provinces. In general, we found little information on the topic. For policies and guidelines, we found information related to the installation and use of lasers for hair removal. In each of the jurisdictions examined except for Nova Scotia and Newfoundland and Labrador, we found that the use of laser devices for medical purposes is governed by provincial regulations which help ensure workplace safety, and specify precautions for the design and use of laser equipment. These regulations are often used in tandem with Health Canada’s safety guidelines for use of Class 3b and 4 laser hair removal, which still apply in the provinces without regulations of their own.(4) Even in jurisdictions with provincial regulations, it is generally unclear whether legislation only applies to cosmetic hair removal or whether it extends to medically necessary hair removal as well. For the extent and nature of coverage, Manitoba is the only province that provides funding for hair removal as part of gender-affirming surgery. Specifically, as outlined in Table 1, laser hair removal for feminization is covered under the Manitoba Health Services Insurance Plan if the referral is made by an approved provider on the Trans Health Clinic team.(5) In addition, laser hair removal on the forearm for the purpose of phalloplasty surgery is covered if a psychological assessment (from an approved provider) has taken place which supports readiness for the surgery.(6) Information about other ‘medically necessary’ hair-removal services is largely assumed to be under the care of family physicians or dermatologists. Lastly, the professional regulations for hair removal that we identified were for electrologists and estheticians, neither of which were found to be regulated health professions in any province except for Manitoba, in which they are considered a regulated trade requiring mandatory certification (see Table 1 for details).

**Box 2: Identification, selection and synthesis of research evidence**

We identified research evidence (systematic reviews and primary studies) by searching (in November 2018) Health Systems Evidence ([www.healthsystemsevidence.org](http://www.healthsystemsevidence.org)) and PubMed. In Health Systems Evidence we used the search terms gender AND surgery. In PubMed we searched for gender AND surgery AND hair removal. For the jurisdictional scan of Canadian provinces, we conducted hand searches of relevant government and stakeholder websites.

The results from the searches were assessed by one reviewer for inclusion. A document was included if it fit within the scope of the questions posed for the rapid synthesis.

For each systematic review we included in the synthesis, we documented the focus of the review, key findings, last year the literature was searched (as an indicator of how recently it was conducted), methodological quality using the AMSTAR quality appraisal tool (see the Appendix for more detail), and the proportion of the included studies that were conducted in Canada. For primary research (if included), we documented the focus of the study, methods used, a description of the sample, the jurisdiction(s) studied, key features of the intervention, and key findings. We then used this extracted information to develop a synthesis of the key findings from the included reviews and primary studies.

**Table 1: Summary of policies/guidelines, extent and nature of financial support and professional regulations for medically necessary hair removal in Canadian provinces**

Jurisdiction	Policies/guidelines governing medically necessary hair removal	Extent and nature of financial support for medically necessary hair removal	Professional regulations for hair removal (and/or status of interest among groups for becoming a designated professional in the area)
British Columbia	<ul style="list-style-type: none"> <li>• Laser devices are regulated under the Radiation Emitting Devices Act, the Medical Devices Regulations, the Food and Drugs Act, and the WorkSafeBC Occupational Health &amp; Safety Regulation (Part 7 Division 3 Radiation Exposure) (4)</li> <li>• In designated healthcare facilities, the installation and use of lasers must be in compliance with American National Standard Institute (ANSI) Z136.3 – 2005 Safe Use of Lasers in Healthcare Facilities standards (4)</li> <li>• In non-healthcare facilities, lasers must be in compliance with (ANSI) Z136.1 – 2007 Safe Use of Lasers, Personal Services Establishments Regulations Reg. 202/83 and the BC Ministry of Health Services: Guidelines for Personal Service Establishments (PSE) standards (4; 7)</li> <li>• Safety guidelines from Health Canada for use of Class 3b and 4 laser hair-removal devices also apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>• Medical Services Plan of BC does not cover hair removal for gender-affirming surgeries, even if required by a surgeon (8)</li> <li>• Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>• Estheticians, electrologists and related occupations providing facial and body treatments are not regulated professions (9)</li> <li>• Voluntary certification from an educational or training institution, and/or membership in the provincial or national electrolysis association may be required by the <a href="#">Association of Professional Electrologists of BC</a></li> <li>• Estheticians and electrologists must undergo training before operating laser hair-removal equipment and are required to complete a registered dermal therapy program, but the details of the training are unclear</li> </ul>
Alberta	<ul style="list-style-type: none"> <li>• Laser devices are regulated under the Radiation Protection Regulation (Alta. Reg. 182/2003)</li> <li>• A registration certificate is required for Class 3B and 4 laser hair-removal devices</li> <li>• In designated healthcare facilities, installation and use of lasers must be in compliance with the Laser Safety in Health Care Facilities regulation from the Canadian Standards Association (CAN/CAS-Z386-01) (4)</li> <li>• In facilities not designated for healthcare, installation and use of lasers must comply with</li> </ul>	<ul style="list-style-type: none"> <li>• Alberta Health Care Insurance Plan, through the Final Stage Gender Reassignment Surgery Program provides funding for Alberta residents diagnosed with gender dysphoria who meet the established program criteria to obtain surgeries such as phalloplasty or vaginoplasty, but laser hair removal or electrolysis are considered ‘non-medical’ interventions and are not</li> </ul>	<ul style="list-style-type: none"> <li>• Estheticians, electrologists and related occupations providing facial and body treatments are not regulated professions (11)</li> <li>• Voluntary certification from an educational or training institution, and/or membership in the provincial or national electrolysis association may be required by the <a href="#">Electrolysis Society of Alberta</a></li> </ul>

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Jurisdiction	Policies/guidelines governing medically necessary hair removal	Extent and nature of financial support for medically necessary hair removal	Professional regulations for hair removal (and/or status of interest among groups for becoming a designated professional in the area)
	<p>ANSI Standard Z136.1-2000, “American National Standard for the Safe Use of Lasers”</p> <ul style="list-style-type: none"> <li>• Safety guidelines from Health Canada for use of Class 3b and 4 laser hair removal devices also apply (4)</li> </ul>	<p>covered by the province (10)</p> <ul style="list-style-type: none"> <li>• Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	
Saskatchewan	<ul style="list-style-type: none"> <li>• Laser devices are regulated under the Radiation Health and Safety Regulations, R.R.S. c. R-1.1 Reg. 2, 2005 (12)</li> <li>• The operation of premises providing laser services is governed under the Health Hazards Regulations of the Public Health Act, 1994</li> <li>• In designated healthcare facilities, lasers must be installed, operated and maintained in accordance with American National Standards Institute (ANSI) Z136.3-2004, Safe Use of Lasers standards (4)</li> <li>• In facilities not designed for healthcare, lasers must be installed, operated, labelled and maintained in accordance with ANSI Z136.1-2000, Safe Use of Lasers standards (4)</li> <li>• Health Canada safety guidelines for use of Class 3b and 4 laser hair-removal devices apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>• Transition-related hair removal is not publicly funded(13)</li> <li>• Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>• Estheticians, electrologists and related occupations providing facial and body treatments are not regulated professions (11)</li> <li>• Voluntary certification from an educational or training institution, and/or membership in the provincial or national association is recommended by the <a href="#">Saskatchewan Electrologists Association Incorporated</a></li> </ul>
Manitoba	<ul style="list-style-type: none"> <li>• The Workplace Safety and Health Regulation, Man. Reg. 217/2006, under the Workplace Safety and Health Act, C.C.S.M. c. W210 states that “An employer must ensure that a laser used in a workplace is installed, used and maintained in accordance with ANSI Standard Z136.1-2005, American National Standard for Safe Use of Lasers” (14)</li> <li>• In designated healthcare facilities, employers must develop and implement safe work procedures regarding the use, operation and</li> </ul>	<ul style="list-style-type: none"> <li>• Laser hair removal for feminization is covered under the Manitoba Health Services Insurance Plan if the referral is made by an approved provider on the Trans Health Clinic team (5)</li> <li>• Laser hair removal on the forearm for the purpose of phalloplasty surgery is covered if a psychological assessment (from an approved provider) has taken place</li> </ul>	<ul style="list-style-type: none"> <li>• Electrologists and estheticians are ‘regulated trades’ under the Apprenticeship and Certification Act (C.C.S.M. c. A110) which specifies mandatory certification and licensing or registration; however, this does not place them in the same regulatory category as other health professions such as physicians and nurses (15)</li> </ul>

Jurisdiction	Policies/guidelines governing medically necessary hair removal	Extent and nature of financial support for medically necessary hair removal	Professional regulations for hair removal (and/or status of interest among groups for becoming a designated professional in the area)
	<p>maintenance of laser equipment in accordance with CSA Standard Z386-01 (R2006), Laser Safety in Health Care Facilities (4)</p> <ul style="list-style-type: none"> <li>Health Canada safety guidelines for use of Class 3b and 4 laser hair removal devices apply</li> </ul>	<p>which supports readiness for the surgery (6)</p> <ul style="list-style-type: none"> <li>Hair removal by electrolysis is not covered</li> <li>Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	
Ontario	<ul style="list-style-type: none"> <li>Sex reassignment surgery is only insured once prior approval has been obtained from the Ministry of Health and Long-Term Care (16; 17)</li> <li>Laser technology under <a href="#">CSA Standard Z386-14 – Safe Use of Lasers in Health Care Facilities</a> is referred to for medical applications</li> <li><a href="#">ANSI Standard Z136.1</a> and <a href="#">ANSI Standard Z136.3</a> summarize the most important requirements for employers, supervisors, and workers in the safe use of laser devices (18)</li> <li>Health Canada safety guidelines for use of Class 3b and 4 laser hair-removal devices also apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>OHIP does not cover laser hair removal for gender-affirming surgeries (17)</li> </ul>	<ul style="list-style-type: none"> <li>Estheticians, electrologists and related occupations are not regulated health professionals (11)</li> <li>Voluntary certification, licensing or registration is available through the Ontario chapter of the Federation of Canadian Electrolysis Associations</li> </ul>
Quebec	<ul style="list-style-type: none"> <li>The Occupational Health and Safety, Regulation R.Q. c. S-2.1, r.19.01 states that infra-red radiation sources must be shielded by either heat absorbent screens, water screens or any other devices to protect workers (4)</li> <li>The Medical Act does not restrict the use of Class 3b/Class 4 lasers to just physicians,(19) nor does it differentiate between esthetic and medical cosmetic procedures. However, this legislation is only limited to ‘cosmetic’ procedures and the use of lasers for “medically necessary” hair removal is not specified</li> </ul>	<ul style="list-style-type: none"> <li>Transition-related hair removal is not publicly funded (13)</li> <li>Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>Electrologists and estheticians are not a regulated health profession within the province, but the Association des électrolystes et esthéticiennes du Québec (Association of electrologists and beauticians of Quebec) is a professional body for estheticians, electrologists and related occupations in the province which states it has acquired “credibility with the general public,” and can refer registered professionals to damage insurance resources and voluntary training opportunities (20)</li> <li>A 2011 case of the death of a woman in Quebec sparked some commentary about the need to regulate and professionalize estheticians (21)</li> </ul>

Jurisdiction	Policies/guidelines governing medically necessary hair removal	Extent and nature of financial support for medically necessary hair removal	Professional regulations for hair removal (and/or status of interest among groups for becoming a designated professional in the area)
	<ul style="list-style-type: none"> <li>• Estheticians and electrologists must undergo local site-specific training before operating laser hair-removal equipment, but the details of this are not clear</li> <li>• Health Canada safety guidelines for use of Class 3b and 4 laser hair removal devices also apply (4)</li> </ul>		
New Brunswick	<ul style="list-style-type: none"> <li>• There is no explicit guideline or regulation restricting the use of hair-removal equipment for medically necessary purposes under the Occupational Health and Safety Act N.B. Reg. 91-191 other than that laser beams for hair removal must be used in accordance with standards set by the American National Standard for Safe Use of Lasers(4)               <ul style="list-style-type: none"> <li>○ It is not clear if this legislation only applies to cosmetic hair removal either</li> </ul> </li> <li>• Health Canada safety guidelines for use of Class 3b and 4 laser hair-removal devices also apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>• Transition-related hair removal is not publicly funded (22)</li> <li>• Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>• Estheticians, hair replacement technicians, electrolysis technicians, cosmeticians and beauty treatment, and electrologists are not regulated health professionals</li> <li>• The province specifies that “Electrologists usually require certification from an electrologist's educational or training institution” and that “membership in a provincial or national electrolysis association may be required” in order to perform hair-removal procedures, but the details of this remain unclear (23)</li> <li>• Professionals who perform electrology laser hair removal are required to complete a registered dermal therapy program</li> </ul>
Prince Edward Island	<ul style="list-style-type: none"> <li>• There is no explicit guideline or regulation restricting the use of hair-removal equipment only for medically necessary purposes, nor are there special provisions which outline the regulation of medically necessary hair removal</li> <li>• General Regulations P.E.I. Reg. EC180/87 and Radiation Safety Regulations P.E.I. Reg. EC547/84 mandated by the province define the design and manufacturing specifications for the use of lasers for medical purposes (4)               <ul style="list-style-type: none"> <li>○ Regulations do not specify restrictions of hair-removal procedures for physicians only</li> <li>○ It is not clear if this legislation applies to cosmetic hair removal as well</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Transition-related hair removal is not publicly funded (24)</li> <li>• Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>• Estheticians, electrologists and hair-replacement technicians are not regulated health professionals</li> <li>• The Atlantic Association of Professional Electrologists, a member of the Federation of Canadian Electrolysis Associations, has one certified member in Prince Edward Island               <ul style="list-style-type: none"> <li>○ Although not a regulatory body, the association offers certification to members who voluntarily complete the Federation of Canadian Electrolysis Associations’ certification exam</li> </ul> </li> </ul>

*Identifying Policies, Financial Support and Professional Regulations for Medically Necessary Hair Removal*

Jurisdiction	Policies/guidelines governing medically necessary hair removal	Extent and nature of financial support for medically necessary hair removal	Professional regulations for hair removal (and/or status of interest among groups for becoming a designated professional in the area)
	<ul style="list-style-type: none"> <li>Health Canada safety guidelines for use of Class 3b and 4 laser hair-removal devices also apply (4)</li> </ul>		
Nova Scotia	<ul style="list-style-type: none"> <li>As of 2016, there have been no provincial guidelines, policies or standards applicable to elective or medically necessary laser hair removal in Nova Scotia,(4) however, Health Canada safety guidelines for use of Class 3b and 4 laser hair-removal devices still apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>Transition-related hair removal is not publicly funded (13)</li> <li>Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>Estheticians, electrologists and hair-replacement technicians are not regulated health professionals</li> <li>Self-employment is common for practising non-medical hair-removal specialists</li> <li>Membership in a provincial or national electrolysis association may be a requirement for electrologists, however, the details of this are not publicly available</li> <li>Completion of a registered dermal therapy program may also be required to provide electrolysis laser treatments, but the details of this are also not clear (25)</li> <li>The <a href="#">Atlantic Association of Professional Electrologists</a>, a member of the Federation of Canadian Electrolysis Associations, has 11 certified members in Nova Scotia             <ul style="list-style-type: none"> <li>Although not a regulatory body, the association offers certification to members who voluntarily complete the Federation of Canadian Electrolysis Associations’ certification exam</li> </ul> </li> </ul>
Newfoundland and Labrador	<ul style="list-style-type: none"> <li>As of 2016, there have been no provincial guidelines, policies or standards applicable to elective or medically necessary laser hair removal in Newfoundland and Labrador,(4) however, Health Canada safety guidelines for use of Class 3b and 4 laser hair removal devices still apply (4)</li> </ul>	<ul style="list-style-type: none"> <li>Transition-related hair removal is not publicly funded (13)</li> <li>Information about other “medically necessary” hair-removal services is largely assumed to be under the care of family physicians or dermatologists</li> </ul>	<ul style="list-style-type: none"> <li>The Atlantic Association of Professional Electrologists, a member of the Federation of Canadian Electrolysis Associations, does not have any certified members in Newfoundland and Labrador, and it is unclear whether there is any professional regulation or oversight for hair-removal services outside of the scopes of practice of family physicians or dermatologists</li> </ul>

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## APPENDICES

The following table provides detailed information about the systematic review identified in the rapid synthesis. For the included systematic review, we extracted the focus of the review, key findings, last year the literature was searched, and the proportion of studies conducted in Canada.

For the appendix table providing details about the systematic reviews, the fourth column presents a rating of the overall quality of each review. The quality of each review has been assessed using AMSTAR (A MeaSurement Tool to Assess Reviews), which rates overall quality on a scale of 0 to 11, where 11/11 represents a review of the highest quality. It is important to note that the AMSTAR tool was developed to assess reviews focused on clinical interventions, so not all criteria apply to systematic reviews pertaining to delivery, financial or governance arrangements within health systems. Where the denominator is not 11, an aspect of the tool was considered not relevant by the raters. In comparing ratings, it is therefore important to keep both parts of the score (i.e., the numerator and denominator) in mind. For example, a review that scores 8/8 is generally of comparable quality to a review scoring 11/11; both ratings are considered “high scores.” A high score signals that readers of the review can have a high level of confidence in its findings. A low score, on the other hand, does not mean that the review should be discarded, merely that less confidence can be placed in its findings and that the review needs to be examined closely to identify its limitations. (Lewin S, Oxman AD, Lavis JN, Fretheim A. SUPPORT Tools for evidence-informed health Policymaking (STP): 8. Deciding how much confidence to place in a systematic review. *Health Research Policy and Systems* 2009; 7 (Suppl1):S8).

All of the information provided in the appendix table was taken into account by the authors in describing the findings in the rapid synthesis.

**Appendix 1: Summary of findings from systematic review about medically necessary hair removal**

Type of review	Focus of systematic review	Key findings	Year of last search/ publication date	AMSTAR (quality) rating	Proportion of studies that were conducted in Canada
Effectiveness	Efficacy and safety of non-invasive anesthetic methods during dermatological laser procedures (3)	<ul style="list-style-type: none"> <li>• The review identified a large variability in procedures used, including types of and settings for lasers, application time and pain outcomes assessed in all of the included studies</li> <li>• Of the 32 included studies (20 randomized controlled trials and 12 controlled clinical trials), nine studies (258 patients) reported on non-invasive anesthetic methods used during laser-assisted hair-removal procedures</li> <li>• The review indicated that evidence is insufficient to draw conclusions, but noted that non-invasive anesthetic methods seemed to be more positive as compared to placebo or no anesthesia, and that better pain reduction was achieved through topical anesthetic drugs and pneumatic skin flattening as compared to skin cooling</li> </ul>	2017	8/10	Not stated





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