

CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

Blue and Black Lighting for Bathrooms in Health Care Facilities: Clinical Effectiveness, Safety, and Guidelines

Service Line: Rapid Response Service

Version: 1.0

Publication Date: September 16, 2020

Report Length: 6 Pages



Authors: Shannon Hill, Lory Picheca

Cite As: Blue and Black Lighting for Bathrooms in Health Care Facilities: Clinical Effectiveness, Safety, and Guidelines. Ottawa: CADTH; 2020 Sep. (CADTH rapid response report: summary of abstracts).

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.

Questions or requests for information about this report can be directed to requests@cadth.ca



Research Questions

- 1. What is the clinical effectiveness of blue or black lighting for bathrooms in health care facilities that may be used by individuals who are users of intravenous drugs?
- 2. What is the safety of blue or black lighting for bathrooms in health care facilities used by staff, patients, and visitors?
- 3. What are the evidence-based guidelines regarding the use of blue or black lighting for bathrooms in health care facilities?

Key Findings

No relevant literature was identified regarding the clinical effectiveness of blue and black lighting for bathrooms in health care facilities that may be used by individuals who are users of intravenous drugs. No relevant literature was identified regarding the safety of blue and black lighting for bathrooms in health care facilities used by staff, patients, and visitors. Additionally, no evidence-based guidelines were identified regarding the use of blue of black lighting for bathrooms in health care facilities.

Methods

Literature Search Methods

A limited literature search was conducted by an information specialist on key resources including MEDLINE, the Cochrane Library, the University of York Centre for Reviews and Dissemination (CRD) databases, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search strategy was comprised of both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. The main search concepts were lighting and toilet facilities. 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, 2010 and September 8, 2020. Internet links were provided, where available.

Selection Criteria and Summary Methods

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in Table 1. Full texts of study publications were not reviewed. The Overall Summary of Findings was based on information available in the abstracts of selected publications. Open access full-text versions of evidence-based guidelines were reviewed when abstracts were not available, and relevant recommendations were summarized.

Table 1: Selection Criteria

Population	Q1, Q3: Individuals who are users of intravenous drugs Q2, Q3: Staff, patients, and visitors
Intervention	Blue or black lighting for bathrooms in health care facilities
Comparator	Q1-Q2: Standard lighting for bathrooms in health care facilities Q3: Not applicable



Outcomes	Q1: Clinical effectiveness (e.g., mortality, incidence of drug overdose, opioid-associated harms, rates of adverse events) Q2: Safety (e.g., rates of adverse events [e.g., incidence of falls]) Q3: Recommendations regarding best practices (e.g., guidance regarding whether bathrooms in health care facilities should use blue or black lighting, what additional safeguards should be provided in bathrooms with blue or black lighting)
Study Designs	Health technology assessments, systematic reviews, randomized controlled trials, non-randomized studies, evidence-based guidelines

Results

No relevant health technology assessments, systematic reviews, randomized controlled trials, or non-randomized studies were identified regarding the clinical effectiveness or safety of blue and black lighting for bathrooms in health care facilities that may be used by individuals who are users of intravenous drugs, staff, patients, and visitors. Additionally, no evidence-based guidelines were identified regarding the use of blue of black lighting for bathrooms in health care facilities.

References of potential interest that did not meet the inclusion criteria are provided in the appendix.

Overall Summary of Findings

No relevant literature was found regarding the clinical effectiveness or safety of blue and black lighting for bathrooms in health care facilities that may be used by individuals who are users of intravenous drugs, staff, patients, and visitors. Additionally, no evidence-based guidelines were identified regarding the use of blue of black lighting for bathrooms in health care facilities; 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

Guidelines and Recommendations - Methodology Not Specified

- City of Vancouver. Public washroom design & technical guidelines [Real Estate and Facilities Management, Facility Planning and Development]. Vancouver (BC): City of Vancouver; 2018 Jan: https://vancouver.ca/files/cov/public-washroom-design-and-technical-guidelines.pdf Accessed 2020 Sep 15.
 See: 1.2 Safety Considerations (p2)

Qualitative Studies

- Crabtree A, Mercer G, Horan R, Grant S, Tan T, Buxton JA. A qualitative study of the perceived effects of blue lights in washrooms on people who use injection drugs. *Harm Reduct J*. 2013 Oct 08;10:22.
 PubMed: PM24099145
- Grant S, Tan T, Crabtree A, et al. Barriers to safer injection practices faced by people who use Injection drugs, in Vancouver and Abbotsford, B.C. *UBCMJ*. 2013
 Feb;4(2):10-13.

 https://med-fom-ubcmj.sites.olt.ubc.ca/files/2016/02/ubcmj 4 2 2013 10-13.pdf

 Accessed 2020 Sep 15.
- Parkin S, Coomber R. Fluorescent blue lights, injecting drug use and related health risk in public conveniences: findings from a qualitative study of micro-injecting environments. *Health Place*. 2010 Jul;16(4):629-637.
 PubMed: PM20167527

Additional References

- Fraser Health. Blue lights in publicly-accessible washrooms [fact sheet]. Surrey (BC):
 Fraser Health; 2019 Jan:
 https://www.fraserhealth.ca/-/media/Project/FraserHealth/FraserHealth/Health-
 - <u>Topics/Mental-Health-Substance-Use/Harm-reduction/201902_Fact_Sheet_Blue_Lights_in_Publicly_Accessible_Washrooms.pdf</u>
 Accessed 2020 Sep 15.
- 7. Vancouver Coastal Health. Overdose prevention & response in washrooms: recommendations for service providers. *Version 6.0.* Vancouver (BC): Vancouver Coastal Health; 2019 Sep:
 - http://www.vch.ca/Documents/Washroom-Checklist-Service-Settings.pdf Accessed 2020 Sep 15.
 - See: Washroom safety action plan checklist & overdose prevention Lighting (p3)



Winnipeg Regional Health Authority. Safer washroom evaluation: healthy sexuality & harm reduction, WRHA. Winnipeg (MB): WRHA; 2019 Feb:
 https://professionals.wrha.mb.ca/old/extranet/publichealth/files/HSHRSaferWashroomEvaluation_2019.pdf Accessed 2020 Sep 15.
 See: The Washroom (p8)

 Centre for Population Health, NSW Government. Community sharps management: frequently asked questions – (see) Should we put blue lights in our public toilets to deter injecting? 2017 Feb;

https://www.health.nsw.gov.au/csm/Pages/faq.aspx#bookmark19 Accessed 2020 Sep 15.

See: Should we put blue lights in our public toilets to deter injecting?