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CADTH RAPID RESPONSE REPORT: SUMMARY OF ABSTRACTS

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

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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.

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.

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Appendix — Further Information

Guidelines and Recommendations – Methodology Not Specified

1. BC Centre for Disease Control (BCCDC). Blue lights in public washrooms [*BC Centre for Disease Control position statement*]. Vancouver (BC): BCCDC; 2019 Oct: http://www.bccdc.ca/resource-gallery/Documents/Educational%20Materials/Epid/Other/BCCDC_Blue_Lights_%20Position%20Statement.pdf Accessed 2020 Sep 15.

2. 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

3. 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

4. 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.

5. 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

6. 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-Topics/Mental-Health-Substance-Use/Harm-reduction/201902_Fact_Sheet_Blue_Lights_in_Publicly_Accessible_Washrooms.pdf
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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)

8. 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)

9. 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?