Health Quality Ontario

Let's make our health system healthier

Portable Ultraviolet Light Surface-Disinfecting Devices for Prevention of Hospital-Acquired Infections

FINAL RECOMMENDATION

- Health Quality Ontario, under the guidance of the Ontario Health Technology Advisory Committee, recommends against publicly funding portable ultraviolet light surface-disinfection devices for prevention of hospital-acquired infections

RATIONALE FOR THE RECOMMENDATION

The Ontario Health Technology Advisory Committee has reviewed the findings of the health technology assessment[1] and determined that the clinical effectiveness of portable ultraviolet light surface-disinfecting devices has not been demonstrated.

The Ontario Health Technology Advisory Committee was uncertain whether or not the technology is better than standard cleaning and disinfection in preventing hospital-acquired infections. Members of the committee were also concerned about practical challenges associated with using this technology.

Public Comment: Held 21 September to 12 October, 2017.

Ontario
Health Quality Ontario

Decision Determinants for Portable Ultraviolet Light Surface-Disinfecting Devices for Prevention of Hospital-Acquired Infections

Decision Criteria	Subcriteria	Decision Determinants Considerations
Overall clinical benefit How likely is the health technology/intervention to result in high, moderate, or low overall benefit?	**Effectiveness** How effective is the health technology/intervention likely to be (taking into account any variability)?	Because of the low to very low quality of evidence, we are uncertain whether portable UV surface disinfection is better than standard cleaning and disinfection.
	Safety How safe is the health technology/intervention likely to be?	The portable UV technology is known to be safe. It does not involve contact with patients and leaves no residuals after application.
	Burden of illness What is the likely size of the burden of illness pertaining to this health technology/intervention?	About 200,000 Canadians acquire a health care–associated infection annually, with an estimated 8,000 to 12,000 persons dying as a result of their infection.
	Need How large is the need for this health technology/intervention?	Hospital-acquired infections constitute 10% of acute hospitalizations.
Consistency with expected societal and ethical values[a] How likely is adoption of the health technology/intervention to be congruent with societal and ethical values?	**Societal values** How likely is the adoption of the health technology/intervention to be congruent with expected societal values?	The portable UV technology is noninvasive and has safety features. No societal concerns are expected.
	Ethical values How likely is the adoption of the health technology/intervention to be congruent with expected ethical values?	The portable UV technology is non-invasive and has safety features. No ethical concerns are expected.
Value for money How efficient is the health technology/ intervention likely to be?	**Economic evaluation** How efficient is the health technology/intervention likely to be?	The value for money (cost-effectiveness) could not be determined on the basis of currently available evidence.
Feasibility of adoption into health system How feasible is it to adopt the health technology/intervention into the Ontario health care system?	**Economic feasibility** How economically feasible is the health technology/intervention?	Given the high capital cost as well as the ongoing maintenance and operating cost, adoption into Ontario hospitals is not economically feasible.
	Organizational feasibility How organizationally feasible is it to implement the health technology/intervention?	Implementation is likely to be challenging for several reasons, including that hospital rooms in Ontario are usually shared by multiple patients.

Abbreviation: UV, ultraviolet.

[a]The anticipated or assumed common ethical and societal values held in regard to the target condition, target population, and/or treatment options. Unless there is evidence from scientific sources to corroborate the true nature of the ethical and societal values, the expected values are considered.

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REFERENCE

(1) Health Quality Ontario. Portable ultraviolet light surface-disinfecting devices for prevention of hospital-acquired infections: a health technology assessment. Ont Health Technol Assess Ser [Internet]. 2018 Feb;18(1):1-73. Available from: http://www.hqontario.ca/evidence-to-improve-care/journal-ontario-health-technology-assessment-series

Health Quality Ontario
130 Bloor Street West, 10th Floor
Toronto, Ontario
M5S 1N5
Tel: 416-323-6868
Toll Free: 1-866-623-6868
Fax: 416-323-9261
Email: EvidenceInfo@hqontario.ca
www.hqontario.ca

Citation

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