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

### Decision Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Subcriteria</th>
<th>Decision Determinants Considerations</th>
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</thead>
<tbody>
<tr>
<td>Overall clinical benefit</td>
<td>Effectiveness</td>
<td>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.</td>
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<td>Safety</td>
<td>The portable UV technology is known to be safe. It does not involve contact with patients and leaves no residuals after application.</td>
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<td>Burden of illness</td>
<td>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.</td>
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<td>Need</td>
<td>Hospital-acquired infections constitute 10% of acute hospitalizations.</td>
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<tr>
<td>Consistency with expected societal and ethical values*</td>
<td>Societal values</td>
<td>The portable UV technology is noninvasive and has safety features. No societal concerns are expected.</td>
</tr>
<tr>
<td></td>
<td>Ethical values</td>
<td>The portable UV technology is non-invasive and has safety features. No ethical concerns are expected.</td>
</tr>
<tr>
<td>Value for money</td>
<td>Economic evaluation</td>
<td>The value for money (cost-effectiveness) could not be determined on the basis of currently available evidence.</td>
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<tr>
<td>Feasibility of adoption into health system</td>
<td>Economic feasibility</td>
<td>Given the high capital cost as well as the ongoing maintenance and operating cost, adoption into Ontario hospitals is not economically feasible.</td>
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<td>Organizational feasibility</td>
<td>Implementation is likely to be challenging for several reasons, including that hospital rooms in Ontario are usually shared by multiple patients.</td>
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</tbody>
</table>

**Abbreviation:** UV, ultraviolet.

*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.
REFERENCE


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About the Ontario Health Technology Advisory Committee

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