

# New Products and Technology

Note: This information was developed by the Document Revision Working Group for the best practice recommendations IPC Principles for Environmental Cleaning and Disinfection. If you have any questions or comments contact IPC at [ipcsurvstdadmin@ahs.ca](mailto:ipcsurvstdadmin@ahs.ca).

## Best practice recommendations

1. New technologies are developed to improve and supplement current environmental disinfection practices such as:
  - Surface disinfectants, e.g., enhanced hydrogen peroxide, electrochemically activated saline solution, “green” products;
  - No-touch disinfection, e.g., ultraviolet radiation, hydrogen peroxide systems, steam, visible light technology, ozone gas, super-oxidized water;
  - Antimicrobial surfaces, e.g., silver or copper coating, germicide impregnated surfaces etc..
2. Evaluate new technologies on a case-by-case basis considering:
  - safety;
  - ease of use;
  - evidence of effectiveness, e.g., kill claims, measurable reduced bioburden on surfaces and reduction in healthcare associated infections;
  - contact time/turnaround time;
  - vendor training and education;
  - customer support;
  - overall cost and cost effectiveness;
  - fit and compatibility with existing and standardized products.

## References

1. Boyce JM. 2016. Modern Technologies for Improving Cleaning and Disinfection of Environmental Surfaces in Hospitals. *Antimicrobial Resistance and Infection Control*. 5:10. Retrieved from <https://aricjournal.biomedcentral.com/articles/10.1186/s13756-016-0111-x>.
2. Canadian Agency for Drugs and Technologies in Health (CADTH). 2014. Non-Manual Techniques for Room Disinfection in Healthcare Facilities: A Review of Clinical Effectiveness and Guidelines. Retrieved from <https://www.cadth.ca/sites/default/files/pdf/htis/nov-2014/RC0545%20Room%20Disinfection%20Final.pdf>.
3. Canadian Standards Association. EXP06-2015. 2015. Evaluating Emerging Materials and Technologies for Infection Prevention and Control. Express Document.
4. Dancer SJ. 2014. Controlling Hospital-Acquired Infection: Focus on the Role of the Environment and New Technologies for Decontamination. *Clinical Microbiology Reviews*. Vol. 27. Number 4. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4187643/>.
5. Pyrek KM. 2016. Basic Principles for Disinfectant Selection and Use. Special Report. *Infection Control Today*. Retrieved from <https://www.infectioncontroltoday.com/environmental-hygiene/basic-principles-disinfectant-selection-and-use>.
6. Rutala WA. & Weber DA. 2013. Disinfectants used for Environmental Disinfection and New Room Decontamination Technology. *American Journal of Infection Control*. S36-S41.
7. Rutala WA. 2014. Selection of the Ideal Disinfectant. *Infection Control and Hospital Epidemiology*. Vol.35. No.7.