

Pandemic (H1N1) 2009 Influenza Virus: Recommended Disinfection Procedures for Conveyance (aircraft, passenger trains, ferries, buses and cruise ships) and Terminal (airport, cruise ship, bus, ferry and train) Operators and their Staff

These guidelines are based on current available scientific evidence about this emerging disease, and are subject to review and change as new information becomes available.

The following guidelines are being provided by Health Canada in response to the ongoing pandemic of (H1N1) 2009 influenza virus. They have been developed to assist conveyances and terminal operators in determining appropriate disinfection procedures to be used where there may have been cases of H1N1 2009 influenza virus, either onboard the conveyance or in the terminal.

Influenza viruses can live on hard surfaces for 24 to 48 hours, but quantities of the virus sufficient for human infection are only likely to persist between 2 to 8 hours. The flu virus is spread through droplets from coughing or sneezing; these droplets may land on the surface of the eye or be transferred to hands by touching contaminated surfaces. Since hand transfer of the virus to the mucous membranes of the eyes, nose, and mouth resulting in infection is likely to occur, hand and respiratory hygiene are the principal means of interrupting this transmission. Routine cleaning and disinfection practices play a critical role in minimizing the spread of influenza.

In the context of the conveyance industry, between international and domestic travel there are approximately 176 million travellers to, from and within Canada each year. People are generally in close quarters for hours to days and disperse and integrate themselves into communities to varying degrees. Conveyances and terminals have increased risks associated with multiple common touch areas, shared facilities, high passenger volumes and, in some cases, limited access to medical assessments.

1.0 Recommended equipment list for disinfection

It is advised the following equipment be used for disinfection. Equipment should be kept and stored together as part of a kit which can be easily accessed and transported to the area where it will be used.

- Personal protective equipment (disposable gloves)
- Disposable cloths
- Cleaning detergents
- Hard-surface disinfectants as per the following guidance:

In selecting hard-surface disinfectants that could be effective against H1N1 2009 influenza virus, Health Canada recommends utilizing the following criteria:

- The product is registered for sale in Canada with a Drug Identification Number (DIN) <http://www.hc-sc.gc.ca/dhp-mps/prodpharma/databasdon/index-eng.php>;
- The label has a “general virucidal” claim and/or acknowledges effective testing against acceptable surrogates such as the Polio, Vaccina, Bovine Viral Diarrhea Virus (BVDV) or Influenza A and
- The label should outline the recommended conditions, specific to the surface and suitable for the conveyance characteristics.

NOTE: Refer to manufacturers instructions regarding proper use including dilution rates and contact times and/or Health Canada’s *Disinfectant Guidance Document* (see link provided at the end of this document).

- Test strips for verification of disinfectant concentrations
- Waste disposal bags, labels and tape

2.0 Recommended hygiene practices for cleaning staff

- Avoid hand contact with the face, especially the nose and eyes.
- Don personal protective equipment (disposable gloves) prior to entering the affected area.
- Change gloves frequently during cleaning and disinfection activities, especially if they become heavily soiled or damaged during use.
- Wash hands frequently using proper hand washing techniques. It is recommended hands be washed using hand soap and warm water for a sufficient period of time (20 to 30 seconds) to remove any infectious material. <http://www.phac-aspc.gc.ca/alert-alerte/h1n1/public/handtech-eng.php>
- Use alcohol based hand sanitizers containing a minimum 60% ethanol concentration when working in areas not equipped with hand washing facilities.

3.0 Recommended disinfection procedures (as part of or in addition to existing cleaning protocols)

In light of the current pandemic situation and conveyance context, disinfection with a hard-surface disinfectant with a **general virucidal claim** is advised on conveyances and in terminals. **Target the listed areas under sections 4.0 and 5.0 for disinfection activities.** The following disinfection procedures are recommended until further notice and should be employed in addition to activities normally carried out as part of existing routine sanitation programs.

- 1) Use proper Personal Protective Equipment. Refer to section 2.0.
- 2) Identify the areas which need to be disinfected. These will include areas listed below as well as “affected areas” that have been occupied by a suspected case.
- 3) **Clean visibly soiled surfaces with water and a detergent/cleaner. Since the effectiveness of disinfection can be greatly affected by surface soil, cleaning is a critical step prior to disinfection.**
- 4) Apply the general virucidal solution to the surface and allow the surface to air dry for a minimum of 10 minutes or as per manufacturers’ instructions.
- 5) Frequently replace cleaning and disinfection cloths used, especially when moving from one area to another.
- 6) Wash hands frequently using proper hand washing techniques. It is recommended hands be washed using soap and warm water for a sufficient period of time (20 to 30 seconds) to remove any infectious material.
- 7) Handle and dispose of soiled cleaning cloths, disinfection cloths and disposable gloves properly using waste disposal bags.
- 8) Disinfect equipment that will be reused prior to storage.

Additional considerations for disinfection of affected areas where there has been a suspected case of H1N1 2009 influenza virus

- 9) Restrict access to the affected area until disinfection activities are completed.
- 10) Minimize the possibility of cross contamination by bringing all supplies needed to complete the disinfection activities to the affected area at the beginning of the process.
- 11) Empty waste disposal containers in area prior to starting surface disinfection. Waste disposal containers located in affected areas should be emptied by workers wearing personal protective equipment.
- 12) Start at one end of the affected area and move in one direction until all surfaces have been disinfected.

4.0 Frequently touched conveyance areas to be targeted for disinfection activities:

- Seat covers of affected seat(s)
- Replace items such as blankets or pillows provided to affected passenger(s)
- Replace safety card and print materials from affected seat(s)
- Surfaces which are frequently touched including luggage storage bin handles, tray backs and handles, arm rests, seatbelts, television screens, bulkheads, windows and window shades, remote controls and aisle seat headrests
- Lavatories including doors, toilet handles, faucets and waste bins
- State rooms
- Gaming machines and playing chips
- Child play areas or daycare centers (including toys)

5.0 Frequently touched terminal areas to be targeted for disinfection activities:

- Service counters
- Waiting and holding areas including tables and chairs
- Food, beverage and retail service areas
- Washrooms
- Accommodation areas
- Corridors, stairwells and elevators
- Any other common use areas (e.g. play areas)

For further information please refer to the Health Canada website at <http://www.hc-sc.gc.ca/index-eng.phc> and the Public Health Agency of Canada at <http://www.phac-aspc.gc.ca/alert-alerte/h1n1/index-eng.php>.

For further information regarding the policy and guidance for industry and staff regarding the regulation of disinfectant products pursuant to the *Food and Drugs Act*, please refer to the *Disinfectant Guidance Document* available at: http://www.hc-sc.gc.ca/dhp-mps/prodpharma/applic-demande/guide-ld/disinfect-desinfect/disinf_desinf-eng.php.

For further information regarding the determination of whether or not a hard-surface disinfectant is authorized for sale in Canada, Health Canada's Drug Product Database can be searched using defined parameters, such as the DIN. This database is available at: <http://www.hc-sc.gc.ca/dhp-mps/prodpharma/databasdon/index-eng.php>.

For additional information with regards to aircraft, consult the World Health Organization "Guide to Hygiene and Sanitation in Aviation" available online at: www.who.int/water_sanitation_health/hygiene/ships/guide_hygiene_sanitation_aviation_3_edition.pdf.

NOTE: This guidance document was developed in consultation with the Public Health Agency of Canada, Health Canada's Therapeutic Products Directorate and the Workplace Health and Public Safety Programme.