



## Cleaning and Disinfection Protocol for Pediatric Incubators and Isolettes

*This document has been developed in accordance with current applicable infection control and regulatory guidelines. It is intended for use as a guideline only. At no time should this document replace existing documents established by the facility unless written permission has been obtained from the responsible facility manager.*

### PREFACE

The overall goal of infection prevention practices is to eliminate the risk of the transmission of pathogens between patients and between patients and the health care worker. The following recommendations should be implemented when cleaning and disinfecting. These procedures follow the Spaulding Classification of the level of care required for surfaces and instruments.

Environmental surfaces and non-critical equipment are surfaces or equipment that comes in contact with intact skin but not mucous membranes. Intact skin acts as an effective barrier to most microorganisms. Examples of non-critical equipment are bedpans, blood pressure cuffs, crutches, and patient care equipment like incubators, lifts and monitors. There is virtually no risk of transmitting infectious agents to patients via non-critical items; however, these items could potentially contribute to secondary transmission by contaminated hands for Health Care Workers or by contact with medical equipment that will subsequently come in contact with patients.

### PREPARATION

Although microorganisms are ubiquitous in health care settings, inanimate materials are seldom responsible for the direct spread of infections. Cleaning and maintenance prevent the build-up of soil, dust or other foreign material that can harbour pathogens and support their growth. Daily cleaning and disinfection of environmental surfaces and patient care equipment are important in limiting the transmission of organisms.

Appropriate personal protection should be taken for those responsible for the decontamination of a room or area.

### PROTECTIVE BARRIERS

1. Disposable gloves. Gloves should be changed as required, i.e., when torn, when hands become wet inside the glove or when moving between patient rooms.
2. Household gloves can be worn, but they must be discarded when the cleaning is complete.
3. Protective Eye wear (goggles, face shield or mask with eye protection)
4. Masks (surgical or procedural masks sufficient)
5. Gowns

### PRODUCTS

***Accelerated Hydrogen Peroxide Surface Disinfectant 7% Accel Surface Cleaner Disinfectant Concentrate, and Ready to Use 0.5% Accelerated Hydrogen Peroxide Tuberculocidal Surface Disinfectant (sold as Accel TB RTU or Accel TB Wipes), or 0.5% AHP Accel RTU or Accel Wipes.***

1. Preparation of solution - Pre-mix and label from a controlled location 7% AHP Concentrate at a ratio of 1:16 (0.5% AHP).
2. Place mixed solution in either a labeled - flip top 1Litre bottle or a small hand bucket.
3. AHP RTU is ready to use (0.5% AHP).
4. AHP Wipes are ready to use (0.5% AHP).



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### Dilution Table for AHP Concentrate

Ratio	Metric	US Gallons
1:16	256 mL AHP Concentrate to 4 Litres water	8 oz AHP Concentrate to 1 Gallon water
1:64	64 mL AHP Concentrate to 4 Litres water	2 oz AHP Concentrate to 1 Gallon water

### PRODUCT GERMICIDAL EFFICACY

All products listed above are based upon Accelerated Hydrogen Peroxide – and have a Broad-Spectrum Sanitizing claim against vegetative bacteria, a Bactericidal claim against gram negative and gram positive vegetative bacteria as well as General Virucide Claim against Poliovirus Type 1, Sabin Strain, which includes inactivation of both enveloped and non-enveloped viruses. In addition to the General Virucide Claim, Accelerated Hydrogen Peroxide has been proven to show efficacy against HIV, Human Coronavirus, Human Rhinovirus, Human Rotavirus, Canine Parvovirus, Feline Calicivirus (Norovirus) and the H3N2 strain of Avian Influenza A.

The Tuberculocidal Surface Disinfectant (Accel TB) also carries a Fungicidal and Tuberculocidal claim.

### SUMMARY OF PROCEDURES

Apply AHP Solution to either surface or to cloth.

Clean all surfaces of the incubator ensuring that the cloth is changed when soiled. Place used cloth in a marked plastic-lined waste receptacle.

Disinfect all surfaces of the incubator or isolette by reapplying the AHP Solution and allowing for the appropriate contact time.

If using cloth & bucket method, once the incubator or isolette has been cleaned and disinfected discard all unused cleaning solution before proceeding to the next task.

Ensure surfaces are wiped dry to avoid pooling of liquid.

Periodic rinsing is also recommended for porous surfaces (plastics, vinyls etc.)

### Recommended Procedures for Cleaning and Disinfecting Incubators and Isolettes

Incubators should be cleaned and disinfected according to established hospital protocols. This may include:

- A) After use of the incubator
- B) When an infant has been discharged
- C) At least once a week if in continual use.

1. Gather all equipment, cleaning solutions and materials required to clean the room.
2. **WASH** hands and put gloves prior to entering room. Personal protective equipment should be changed if torn or soiled and between patient rooms.
3. Complete the disassembly of the incubator as instructed by the manufacturer guidelines for Cleaning and Maintenance. Ensure that the oxygen supply to the incubator is turned off and that power pack and motor are removed
4. Visible or gross soil present and/or blood or body fluid spills must be removed prior to cleaning. [See Protocol for Cleaning & Disinfecting a Blood or Body Fluid spill.]



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5. To clean the incubator/isolette, apply **AHP Solution** to entire external surface of incubator or Isolette and parts by wiping with a cloth. Using the **AHP Solution** wipe or immerse the smaller pieces in a container of the **AHP Solution**. Wipe all surfaces ensuring that clean cloths and solutions do not become contaminated (**NO DOUBLE DIPPING**) with the **AHP Solution**. Allow surfaces to remain wet for 30 seconds to achieve the 30-second Broad-Spectrum Sanitizing claim.
6. After the cleaning procedure, the incubator/Isolette then requires thorough disinfection. All large components of the incubator (i.e. incubator walls, mattress tray and mattress, main deck) may be wiped down with the **AHP Solution**. Smaller pieces of the incubator can be submersed, if recommended by the manufacturer, in the **AHP Solution**. It is important to ensure that clean cloths and solutions do not become contaminated (**NO DOUBLE DIPPING**). Allow surfaces to remain wet for appropriate contact time indicated on the label.
7. Wipe surfaces dry especially corners etc. to avoid pooling of liquid. A thorough periodic rinse of all items using potable water is recommended. Wipe all items dry with a clean cloth.
8. Reassemble incubator according to manufacturer's instructions.
9. Soiled rags should be placed in a regular plastic bag and then in regular soiled linen bin or the dirty utility room. Take all garbage to the appropriate disposal area.
10. Remove and discard gloves, **WASH** hands prior to leaving room.

### Recommended Procedures for Cleaning & Disinfecting of Blood & Body Fluid Spills

Appropriate personal protective equipment should be worn for cleaning up a body fluid spill. Gloves should be worn during the cleaning and disinfecting procedures. If the possibility of splashing exists, the worker should wear a face shield and gown. For large spills, overalls, gowns or aprons as well as boots or protective shoe covers should be worn. Personal protective equipment should be changed if torn or soiled, and always removed before leaving the location of the spill, and then wash hands.

1. **WASH** hands and put on gloves.
2. If the possibility of splashing exists, the worker should wear a face shield and gown. If there is potential for large spills, overalls, gowns or aprons as well as boots or protective shoe covers should be worn. Personal protective equipment should be changed if torn or soiled and always removed before leaving the location of the spill.
3. Apply the **AHP Solution** to spill – wait 30 seconds.
4. Blot up the blood with disposable towels. Dispose of paper towel in plastic-lined waste receptacle.
5. Spray or wipe surface with the **AHP Solution** – wait 5 minutes. Wipe dry with disposable paper towel. Discard paper towel as above.
6. Remove gloves and dispose in plastic-lined waste receptacle.
7. **WASH** hands.



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### Disposal of Infectious Material

All cleaning cloths gloves and handled tools used for the decontamination of a blood and body fluid should be placed in a clearly marked plastic lined waste receptacle. Decontaminate all wastes before disposal; steam sterilization, chemical disinfection and or incineration.

### Instructions for Confirmatory Testing of 7% AHP Concentrate Surface Disinfectants

The Accelerated Hydrogen Peroxide Test Strip (Part No. AHP500) can be used for confirmatory testing when required by facility protocol. These strips are easy to use dip-and-read reagents strips for a pass or fail determination of the hydrogen peroxide concentration in the 7% AHP Concentrate Surface Disinfectant solution.

1. Remove a test strip and immediately close the container.
2. Dip the test strip into the Diluted AHP solution to be tested for 1-second ensuring that the reaction zone is completely wetted.
3. Remove the test strip and shake of excess liquid.
4. Wait for 120-seconds then compare the reaction zone with the colour scale.

**NOTE:** The purpose of confirmatory testing is not to extend the shelf life beyond the 30-day claim. Should the test strip show that the Diluted AHP Solution still meets the targeted level of hydrogen peroxide after 30 days the product **MUST** still be disposed to ensure compliance with testing and label claims.

### References:

Provincial Infectious Diseases Advisory Committee, Best Practices for Cleaning, Disinfection and Sterilization in All Healthcare Settings, 2006

Public Health Agency of Canada, Infection Control Guidelines for Hand Washing, Cleaning, Disinfection and Sterilization in Healthcare, Volume 24S8, 1998