Best practice recommendations

1. Cleaning and disinfection resources to support supply challenges

1.1 Infection Prevention and Control (IPC) Principles of Environmental Cleaning and Disinfection and Ready-to-Use Disinfectant Wipes.

1.2 Environmental Services (ES) Cleaning Principles.

1.3 Department or unit specific standards or protocols that define roles and responsibilities for managing disinfectant supplies including ordering/re-ordering; dispensing (if necessary), e.g., diluting, packaging, labeling, monitoring; and storage; cleaning tasks/specific equipment.

1.4 End-users help maintain supply availability by:
   - Conserving ready-to-use (RTU) disinfectant wipes for non-critical medical devices, electronics, and sporicidal cleaning, i.e., bleach wipes.
   - Never hoarding or stockpiling supplies as this creates supply challenges in other areas and wastage through expired supplies.

2. Product/disinfectant substitutions

2.1 Notice of any substitutions are communicated by email from Contracting, Procurement and Supply Management (CPSM) via a Product Substitution Notice (PSN). The email is sent to a formal distribution list approved at the manager level, e.g., managers, supply coordinators, ordering clerks, etc.

   - CPSM site supervisors also receive these notices and have current information on back-ordered items.

2.2 Unit staff print off the PSN, laminate it or put it into a plastic sleeve, and post it on the supply carts to notify staff of the substitute product and the original item it replaces.

   - The PSN includes key messages about why the usual product is on back-order and details appropriate usage of the substitute; thus is an important form of communication from CPSM to end-users.

2.3 AHS supplied disinfectants including substitutes are effective against COVID-19.

2.4 Follow manufacturer’s instructions for use:

   - Note any hazard symbols or special handling instructions as mixing disinfectant products together can be hazardous.
   - Use within time specified on product label, e.g., some liquid bleach products are stable for only 24 hours; accelerated hydrogen peroxide (AHP) products are stable when decanted and can be used until the expiry date on the label.
• Follow contact time on the label. Contact time means the time required for the specific disinfectant to remain wet on the surface in order to achieve disinfection. Contact times vary from product to product.
• To prevent damage to medical devices or electronics due to liquid leaking into the device through seams and crevices:
  o Use an approved surface disinfectant, i.e., a pre-moistened disinfectant wipe, or a dry wipe moistened with RTU liquid disinfectant.
  o Squeeze out excess liquid from the wipe before using.
  o Avoid over-saturation of the device. Do not spray or pour products directly onto medical or electronic devices, as it may damage the device.
• Confirm the product is:
  o intended for the purpose it is being used, e.g., surface or non-critical device disinfectant.
  o compatible with the manufacturer’s instructions for the device or surface being cleaned and disinfected.
  o compatible with any accessories used, e.g., cleaning cloths.
2.5 Review the product’s Safety Data Sheet (SDS) prior to use. Keep the SDS in an accessible location, e.g., post where the product is prepared or where it is easily retrieved by a trained staff member.
2.6 Store similar looking products separately and not side by side, e.g., Oxivir® Tb AHP and PCS 1000 containers look similar but are different chemicals.

3. Selecting a disinfectant method
3.1 Consider:
• Staff knowledge and available training information. Refer to Principles of Environmental Cleaning and Disinfection, section 3, page 3.
• Ease of implementation – Staff with limited knowledge and training about cleaning and disinfection are provided disinfectants that are easy to use, e.g., RTU pre-moistened disinfectant wipes, RTU liquid disinfectants and cleaning cloths instead of disinfectant those requiring more preparation, e.g., dilution, prior to use.
• Volumes of wipes used.
• Handling to avoid cross-contamination.
• Materials required:
  o Do not order and repurpose products via CPSM which are intended for other uses as this may cause unintended consequences, i.e., using biohazard bags or sharps containers may result in shortages.
  o During COVID-19 options for sourcing may include: Obtaining through CPSM, obtaining Ziploc® bags or closed containers from retail outlets, inquiring with Linen and Environmental Services if they have available items.
  o To order Ziploc® bags from CPSM:

<table>
<thead>
<tr>
<th>Oracle #</th>
<th>Description</th>
<th>Supplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>369100</td>
<td>Bag Zip-Lock® Polyethylene Clear 2MIL 5INX7IN</td>
<td>Pharma Systems MG5X7</td>
</tr>
</tbody>
</table>

For more information contact ipcsurvstdadmin@ahs.ca
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Cleaning and Disinfection during the COVID-19 Pandemic

Consider saving empty pre-moistened disinfectant wipe containers as they may be cleaned and reused if refilled with a disinfectant with the same chemical composition, e.g., accelerated hydrogen peroxide (AHP) wipes replaced with AHP liquid and dry wipes. Do not repurpose containers of non-related products, e.g., baby wipe containers for this purpose.

Do not discard lids, flip-tops or screw caps as they may be needed for RTU disinfectant liquid. Follow: IPC Recommendations for Handling and Replacing Flip Top Lids.

Note: Spray tops may be provided with liquid RTU disinfectant; however spraying disinfectant directly onto medical devices is not recommended due to risk of aerosolization, risk of liquid disinfectant penetrating into the device, and the associated need for PPE if spray is used.

Availability of disinfectants and the task performed.

Supply disruptions may affect whether RTU disinfectants are available and limit choice of disinfectant.

RTU pre-moistened disinfectant wipes and RTU liquid disinfectants intended for use on environmental surfaces in the patient environment and non-critical medical devices.

If RTU disinfectants are not available, are not appropriate for the task or the manufacturer’s instructions are not available, consult with the CPSM site supervisor.

4. Cleaning cloths

4.1 Confirm the wipe or cloth used is compatible with the disinfectant. Cotton-based cloths and some microfibre cloths may bind to the active ingredient of the cleaning or disinfection product and the cloth retains the chemical causing inadequate exposure of the surface to the product, e.g., quaternary ammonium compound (QUAT) and “QUAT binding.”

Note: wipes provided by CPSM with RTU liquid disinfectant as product substitutions are reviewed and confirmed to be compatible with the disinfectant.

4.2 If the decision is made to cut disposable wipes into sizes which better accommodate the volume of disinfectant and contact time required for a piece of equipment ensure it is done with clean:

• hands;
• scissors;
• surface;
• storage as per Storage of Clean and Sterile Supplies in Clinical Areas. Ideally, cut what is needed for the day.

4.3 Proceed from:

• clean areas to dirty areas;
• low frequency touch to high frequency touch surfaces;
• higher surfaces to lower surfaces.

Refer to Principles of Environmental Cleaning and Disinfection, Section 4.3 for further details.

4.4 Only use a clean wipe or cloth to enter the cleaning or disinfectant solution. Do not dip a used cloth into the cleaning or disinfectant solution (double dipping).

4.5 Use and reuse of wipes/cloths

• visibly soiled;
- no longer wet enough to keep surfaces wet for contact time;
- exiting a patient room under additional precautions.

4.5.2 Discard used disposable wipes/cloths into the garbage.
4.5.3 Place reusable cloths into a designated laundry bag for laundering.

5. Dispensing into Secondary Containers

5.1 Although not routinely recommended by IPC, during the COVID-19 pandemic decanting and refilling empty containers, e.g., buckets, RTU 1Litre liquid bottles, may be required.

5.2 Refill empty containers with disinfectants of the same chemical composition as that of the original contents, i.e., use an accelerated hydrogen peroxide disinfectant container for AHP disinfectant. Do not mix disinfectants or reuse containers for a different disinfectant, e.g., do not mix AHP with QUAT or Bleach; or bleach with QUAT.

5.3 Refer to sample process below for dispensing disinfectant into secondary containers:

<table>
<thead>
<tr>
<th>Sample process for dispensing disinfectant into secondary containers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wash the empty container in warm soapy water, rinse in clean water and tip upside down to dry.</td>
</tr>
<tr>
<td>2. Once dry, close the lid and store for re-use in a clean location dedicated for this purpose.</td>
</tr>
<tr>
<td>3. Keep the container clean during the process of refilling it, e.g., perform hand hygiene; don gloves if recommended on the product label.</td>
</tr>
<tr>
<td>4. Label the container with the product name, WHIMS, date of opening or preparation; date of expiry/discard in 24 hour format, and identification/initial of the person decanting the product. Refer to page 10 and 11 for sample labels.</td>
</tr>
<tr>
<td>5. Take the container into an area for immediate use or store it in a designated location, e.g., in soiled utility area or in housekeeping room. Use prepared product before additional product is prepared.</td>
</tr>
<tr>
<td>6. Verify the label of any secondary container, e.g., contents, discard date and time in 24 hour format, before use. Do not use product that is past its expiry/discard date. Refer to sample labels on page 10 and 11.</td>
</tr>
<tr>
<td>7. Keep containers clean by never dipping soiled cloths back into the disinfectant solution.</td>
</tr>
</tbody>
</table>

6. Use prepared point-of-use solution/RTU disinfectant with a cloth

RTU products are not to be diluted or combined with other disinfectant products. Dispensing options for RTU:

6.1 Dispense liquid from the container into a bucket and place cloth in the bucket to saturate with disinfectant product. Squeeze out excess moisture. Never dip soiled cloths back into the disinfectant solution.

6.2 Dispense disinfectant from the container onto the cloth to wet the surface for the required contact time.

6.3 Dispense diluted disinfectant, i.e., diluted and prepared following manufacturer’s instructions for use/product label, or RTU liquid disinfectant, into a labelled plastic bag or other closed container, e.g., bucket with tight fitting lid with cleaning cloths or wipes.

6.4 Refer to sample bag or container process for moistening cloths or wipes with disinfectant below:
Sample Bag or Container or Bucket Process for Moistening Cloths or Wipes (adapted from Covenant Health)

Supplies required: liquid disinfectant, re-sealable disposable plastic bag, e.g., Ziploc™, or empty clean disinfectant wipe container or bucket with lid, cleaning cloths or wipes and measuring cup.

Steps

1. Don personal protective equipment (PPE) as required by label.

2. Put disposable wipes provided in the bag, container or bucket.

3. Pour pre-determined amount (enough to wet cloths) of the disinfectant into a measuring cup and then into the bag, container or bucket.

4. If using bag, massage contents to moisten cloths.

5. Seal/close the bag, container or bucket.

6. Use a permanent Sharpie® marker to label the bag, container or bucket with the current date and expiry time in 24 hour format.

7. Use within time specified on product label, e.g., liquid bleach products within 24 hours. Accelerated hydrogen peroxide products are stable when decanted. Follow expiry on liquid disinfectant label.

8. Apply the WHMIS (Workplace Hazardous Materials Information System) label to the bag, container or bucket. Refer to page 10 and 11 for sample labels.

9. Store closed bag, container or bucket in a dedicated location, e.g., bin, for staff to access.

10. Doff PPE. Perform hand hygiene.

11. Clean and store equipment.

7. Disinfectant/product shortages

7.1 Confirm all ordering/re-ordering is completed directly through CPSM. Direct purchase orders will be cancelled during the pandemic and will not be filled.

7.2 Contact your site CPSM site supervisor regarding supply shortages and ordering information. Ask site manager for contact information.

7.3 Email or call your Zone Emergency Operations Centre (ZEOC) if you have questions or concerns about disinfectant supplies. All contact information is on the front page of the COVID-19 Insite webpage:

- ECC: 1-877-228-3031 and 403-955-9873
- ZEOC North: 780-830-3538 and PCH.ZEOCNorth@ahs.ca
- ZEOC Edmonton: 780-408-6666 and ZEOC.Edmonton@ahs.ca
- ZEOC Central: 403-406-5530 and ZEOC.Central@ahs.ca
- ZEOC Calgary: 403-943-2203 and ZEOC.Calgary@ahs.ca
- ZEOC South: ZEOC.South@ahs.ca
Appendix A: How to use Oxivir® Ready-to-Use Liquid: Adapted from Rockyview General Hospital (RGH) process developed - July 2020

The Oxivir® currently provided is accelerated hydrogen peroxide, similar to ACCEL.

Below are two methods that can be used for the ready-to-use liquid disinfectant with separately supplied dry wipes.

1. Pour onto Wipe Method - Pour disinfectant onto the wipe just prior to use.

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
<th>PREPARATION</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 PACKAGE OF DRY WIPES</td>
<td>IF USING WYPALL WIPES MAKE A KLEENEX STYLE SLIT IN THE TOP</td>
<td>TORK OR WYPALL DRY WIPES CURRENTLY AVAILABLE</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>OTHER WIPES NOT LISTED MAY BECOME AVAILABLE</td>
</tr>
<tr>
<td>1 BOTTLE OF READY-TO-USE OXIVIR®</td>
<td>ENSURE BOTTLE HAS A FLIP OR SQUIRT TOP</td>
<td>MOST CASES OF 6 BOTTLES COME WITH ONE FLIP OR SQUIRT TOP AND 5 SCREW TOPS</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FLIP OR SQUIRT TOPS ALLOW FOR MORE CONTROL WHEN WETTING THE WIPE</td>
</tr>
</tbody>
</table>

**INSTRUCTIONS:**
- PLACE A PACKAGE OF WIPES AND A BOTTLE OF READY-TO-USE OXIVIR® IN LOCATIONS WHERE EQUIPMENT/SURFACE CLEANING IS REQUIRED
- AT TIME OF USE END USER POURS DISINFECTANT ONTO WIPE ENSURING WIPE IS SUFFICIENTLY SOAKED TO ENSURE CONTACT TIME OF THE CHEMICAL (OXIVIR® 1 MIN REQUIRES A 1 MINUTE CONTACT TIME OF THE CHEMICAL TO THE EQUIPMENT TO ENSURE DISINFECTION)

REUSE TOPS AS NEEDED
PLACE EXTRA TOPS/USED EMPTY BOTTLES IN THE DESIGNATED COLLECTION AREA
2. Soak and Pull Method – Put wipes into container, soak with disinfectant prior to use.

<table>
<thead>
<tr>
<th>EQUIPMENT</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1 EMPTY ACCEL OR OXIVIR® WIPES CONTAINER WITH LID</td>
<td>DUMP AND RINSE OUT CONTAINER PRIOR TO REUSING</td>
<td>BOTH ARE ACCELERATED HYDROGEN PEROXIDE SO ARE COMPATIBLE WITH THE OXIVIR® LIQUID</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PACKAGE OF DRY WIPES</td>
<td></td>
<td>TORK OR WYPALL DRY WIPES CURRENTLY AVAILABLE</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td>OTHER WIPES NOT LISTED MAY BECOME AVAILABLE</td>
</tr>
<tr>
<td>1 BOTTLE OF READY-TO-USE OXIVIR®</td>
<td>NOTE LOT# AND EXPIRY DATE</td>
<td>ACCELERATED HYDROGEN PEROXIDE WITH 1 MINUTE CONTACT TIME</td>
</tr>
<tr>
<td>1 OXIVIR® LABEL</td>
<td>WRITE LOT NUMBER AND EXPIRY DATE FROM OXIVIR® BOTTLE ON LABEL</td>
<td>ACCURATE WHMIS INFORMATION, LOT # AND EXPIRY DATE ARE REQUIRED</td>
</tr>
</tbody>
</table>
INSTRUCTIONS:

- MARK THE LOT NUMBER AND EXPIRY DATE FROM THE BOTTLE OF OXIVIR® ONTO A LABEL
- PLACE THE LABEL (PROVIDED ON PAGE 10) ON A CONTAINER COVERING THE EXISTING LABEL.
- PLACE WIPES IN THE CONTAINER LENGTHWISE (APPROXIMATELY 1/2 PACKAGE WYPALL OR 1/3 PACKAGE TORK)
- POUR APPROXIMATELY 1/3 – 1/2 OF THE CONTENTS OF THE OXIVIR® BOTTLE OVER THE WIPES INTO THE CONTAINER. THE WIPES MUST BE SUFFICIENTLY SOAKED TO ENSURE CONTACT TIME OF THE CHEMICAL (OXIVIR® 1 MINIMUM REQUIRES A 1 MINUTE CONTACT TIME OF THE CHEMICAL TO THE EQUIPMENT TO ENSURE DISINFECTION)
- CLOSE LID AND PLACE CONTAINER IN LOCATION WHERE EQUIPMENT/SURFACE CLEANING REQUIRED

REUSE CONTAINERS/TOPS AS NEEDED. PLACE EXTRA TOPS/CONTAINERS/USED EMPTY BOTTLES IN THE DESIGNATED AREA FOR COLLECTION.

Note: A sample Oxivir® Tb label provided on page 10 may be used label to label Oxivir® Ready-to-Use Liquid prepared as per the process in Appendix A.

A sample label is provided on page 11 for PCS 1000 Oxidizing Disinfectant/ Disinfectant Cleaner Concentrate that may be used if preparing the PCS 1000 disinfectant.
FIRST AID MEASURES
Eye Contact: Flush with water for 15 minutes
Seek medical attention if irritation persists.
Skin Contact: Flush with water for 15 minutes.
Remove to fresh air and take deep, slow breaths.
Please refer to the original MSDS for more information