



Possible Protocols for Limited Alcohol-based Hand Sanitizers and/or Disinfectants

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SARS-CoV-2/COVID-19

The COVID-19 pandemic has substantially increased the use of alcohol-based hand rubs (ABHR) and disinfectants, creating global shortages. This has caused facilities to consider options if these products are not available.

ABHR Supplies Low or Not In Stock

If your facility is running low on ABHR, remove product from dispensers within areas that see low traffic, and prioritize to bedside applications. Hand washing can be recommended to staff utilizing hand wash sinks within the facility.

Handwashing technique is critical, with adequate soap and friction (at least 20 seconds) to do an effective clean. Use of a plain, non-medicated soap is fine as long as the procedure is rigorous enough to remove bacteria, viruses, dead skin, soil and the natural oils on the hands. As these natural oils keep skin intact, application of a hand lotion after hand washing is recommended. Antibacterial soaps are not necessary, unless a sterile process is going to be performed, and no ABHR is available.

Below is a resource for the proper hand washing procedure.

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Soft Care™ Hand hygiene

How to wash your hands



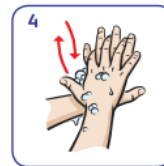
1 Wet hands with water



2 Apply enough soap to cover all hand surfaces



3 Rub hands palm to palm



4 Right palm over left dorsum with interlaced fingers and vice versa



5 Rub palm to palm with fingers interlaced



6 Backs of fingers to opposing palms with fingers interlocked



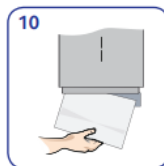
7 Rotational rubbing of left thumb clasped in right palm and vice versa



8 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



9 Rinse hands with water



10 Dry hands thoroughly with a single use towel



11 Use towel to turn off faucet



12 Your hands are now safe

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<https://www.cdc.gov/coronavirus/2019-ncov/infection-control/hcp-hand-hygiene-faq.html>

<https://www.who.int/gpsc/5may/How To HandWash Poster.pdf>

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Cleaning and Disinfection

Cleaning and disinfection is critical for daily operations. Making sure you have adequate inventory on hand is very important. SARS Co-V, when present, can survive on environmental surfaces for up to 5 days (Kampf 2020). van Doremalen (2020) found that the virus can survive 3 days on plastic, 2 days on stainless steel, less on cardboard (up to 24 hours) and copper (<4 hours). Each hospital will need to consult with their multidisciplinary team on where to use cleaning agents, and where to use disinfectants if supply chain is having issues acquiring product.

The CDC emphasizes that “cleaning” and “disinfecting” are two different processes. “Cleaning” refers to the removal of germs, dirt and impurities from surfaces, which helps to reduce their spread, while “disinfecting” uses chemicals to kill germs on surfaces. High-touch surfaces such as toilets, door knobs, remote controls, light switches and tables should be both cleaned and disinfected to maximize effectiveness.

At this time all manufacturers are finding challenges with adequate inventories to manage the demand. In order to address the need, Diversey has developed some guidance for cleaning if there are no disinfectants available.

SARS-CoV-2 and Environmental Survival

As noted above, this virus can survive from 3 – 5 days on hard, non-porous surfaces (Kampf 2020, van Doremalen 2020). This would include areas where the patient had spent more than 5 – 10 minutes (e.g., hard surfaces on beds, overbed tables, restrooms, exam rooms), and may have deposited virus in secretions while coughing, talking or sneezing. Disinfection of high touch surfaces such as these would help ensure that the pathogen has been eliminated, allowing the area to be used safely without concern for subsequent infection.

Facility deep cleaning more than a week after the outbreak occurs are unlikely to find viable virus remaining on surfaces, but deep cleaning still may be desired to ensure the facility is hygienic and provide peace of mind.



Although these are not practices we would support nor recommend if a disinfectant product is available, we want to provide some guidance for you **only if disinfectants are not available.**

Rutala et al (2012) found that by wiping a surface, even with a non-germicidal product, could remove 2-3 log of *Clostridioides difficile* spores. Thus, good attention to the actual cleaning process may help preserve limited supplies of disinfectants.

The options below are in order of the Best to Better to Good. All will depend upon resources available to address.

BEST – Sanitizers and Microfiber Cloths

The best scenario is to use a sanitizer and microfiber cloths. These will help clean and remove pathogens from surfaces, as well as achieve a level of pathogen kill. We recommend paying extra attention to the high touch surfaces Diversey has additional resources for each type of facility or area of care. It is important to do the job more than once daily on the higher touch surfaces to ensure pathogen removal on shared objects. Attention must be paid to how long one cloth is used, and regular folding of the cloth to expose an unused surface is required so that bacteria and debris are not just picked up and re-deposited. Cloths can never be re-dipped into the cleaning solution, and good friction (elbow grease) is required for physical removal of debris and microorganisms. It is also critical to have the surface remain wet for the dwell time on the sanitizer label.

Because disinfectants help kill pathogens that get onto staff gloves, when changing to non-disinfection options, it is important to change gloves and perform hand hygiene more frequently to address this risk and to be more aware of not touching cleaned surfaces with gloved hands, which may be contaminated.

GOOD – Cleaners and Microfiber Cloths

The next scenario is to use a good cleaner and microfiber cloths. These will help clean and remove pathogens from surfaces. We recommend paying extra attention to the high touch surfaces and have resources for each type of facility. It is important to do the job more than once daily on the higher touch surfaces to ensure pathogen removal on shared objects.

BETTER – Cleaners and Cotton or other Cloths

If microfiber cloths are not available, it is recommended to use a good cleaner and clean cotton or other cloths. These will help clean and remove pathogens from surfaces. We recommend paying extra attention to the high touch surfaces and have resources for each type of facility. It is important to do the job more than once daily on the higher touch surfaces to ensure pathogen removal on shared objects.



Cleaning Practices

Neither the WHO nor US-CDC provide any significant information about how environmental cleaning in healthcare settings is to be performed during deep cleaning after an outbreak. Thus this section is based on Diversey expert opinion.

Please contact your Diversey representative for procedures that can be followed in cleaning.

1. **Hard surfaces.** Hard non-porous surfaces can be cleaned with a disinfectant that is effective against SARS-CoV-2, similar viruses, or harder to kill viruses. Disinfectants with strong cleaning performance are preferred since more effective cleaning reduces the number of microorganisms that must be inactivated by the disinfectant. Any heavily soiled surface must be pre-cleaned with non-disinfectant cleaner. If the facility has no access to a disinfectant, then we recommend cleaning heavily soiled areas once to remove visible debris and then cleaning with a clean cloth and good cleaner. The mechanical action provided during cleaning is an important element in the mechanical removal of soil and pathogenic organisms (Rutala 2012).
2. **Soft surfaces.** Soft surfaces such as carpet, curtains, bedding, and upholstery, cannot be disinfected. Laundering of soft surfaces is preferred to ensure the materials are hygienic. Diversey publishes guidance on proper laundering to address the risk of SARS-CoV-2. Where laundering cannot be performed, hot water extraction can be used for carpets and upholstery. For reference, OSHA recommends steam cleaning carpets or other non-launderable items for 1 min at 100 °C or 5 min at 70 °C for norovirus contamination events. This does not guarantee the surface is disinfected, but is the best available option. If neither is an option, evaluating the risk posed by the surface is preferred to discarding the surface/object. Smaller objects may be cleaned and then stored for 2 weeks until the risk of virus viability has passed. Use of a sanitizer registered as a soft-surface sanitizer can also be considered.
3. **Laundering** The CDC has indicated that standard healthcare laundering practices are adequate to produce hygienic fabrics, launderable cloths is also an acceptable option. For a home setting, the hottest water possible for washing, and the hottest dryer setting that the materials can tolerate are recommended.
4. **Cleaning tools.** Hand-held cleaning tools, such as wands, extension tools, and floor mops may be contaminated during cleaning. As long as the hand tool is hard and non-porous it can be wiped down, and disinfected where possible, after use, minimizing any risk of subsequent contamination. Tools with absorbent hand grips should not be used. Disposable toilet swabs may be preferred for toilet cleaning as SARS-CoV-2 is believed to be capable of being passed in feces.



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