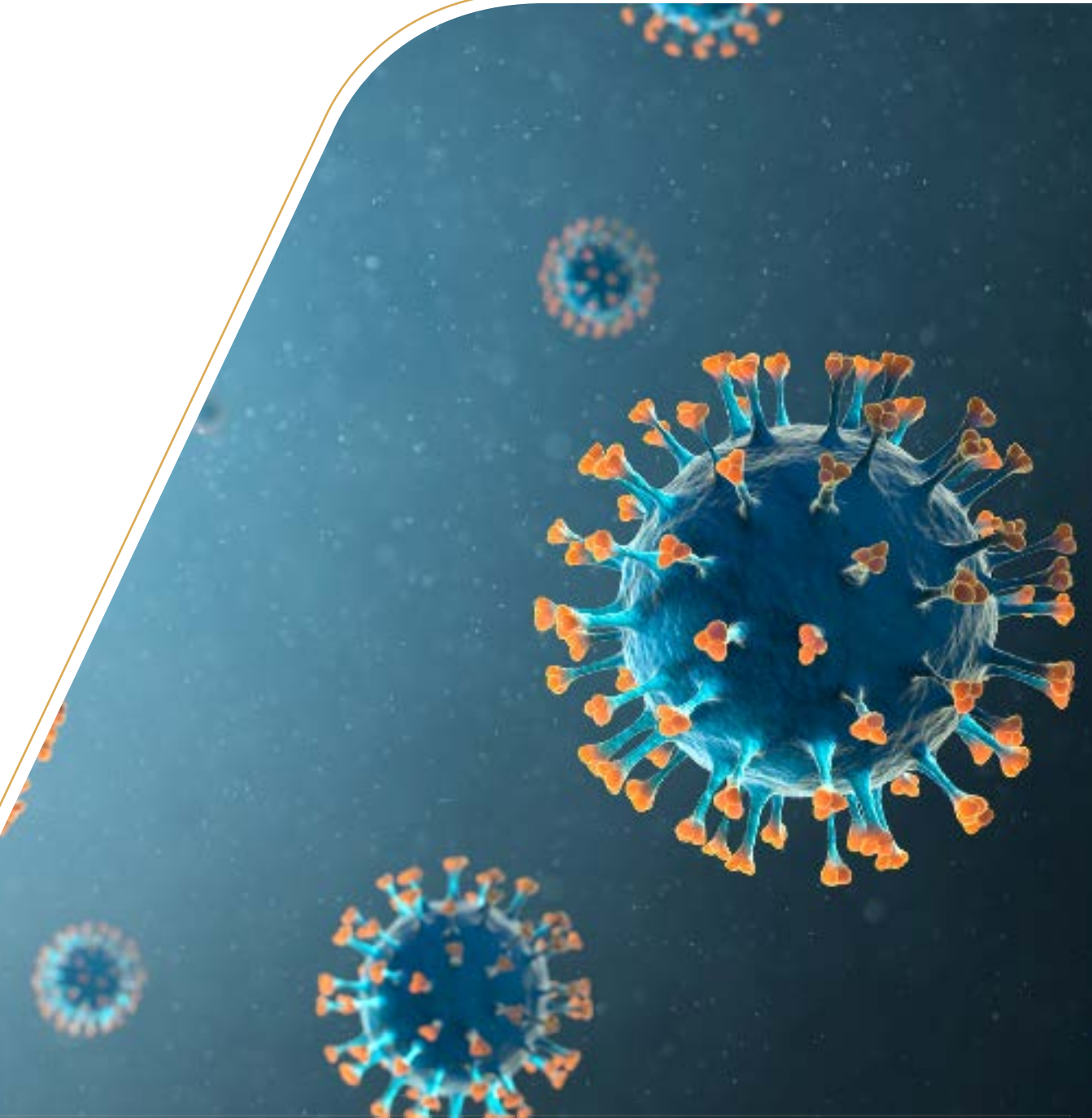


Disinfectants Use Advisory



■ Aim and Objectives

To provide the operational guidelines for cleaning and disinfection of all areas/sites, objects and potential surfaces where a suspected or confirmed case of COVID-19 has visited, lived, used and/or touched. Limiting the survival of virus in any environment is the central theme of this guiding document.

■ Target Places/Area

This advisory primarily focuses on community/households, (this advisory is only for non-hospital settings) and non-healthcare facilities which include airports, railway and bus stations, school/colleges, offices and other working places, restaurants, customer care centres, courts, cinemas, hostels and other public gathering places.

■ Target Surfaces

Frequently touched surfaces are the reservoir of the virus, and through contacting these contaminated surfaces results in continued transmission of this virus. Extra care must be paid to disinfect these surfaces touched repeatedly by different individuals both at publically used places and at household settings. These surfaces include door handles and knobs, handrails of escalators, light switches, table, commonly used telephone set, faucets, sinks, chairs, desk, customer services counters, paper files, pens, utensils, paper towel/napkin dispensers etc.

Note: Currency notes are also very important sources of spread of COVID-19 and other viruses.

https://www.fightbac.org/wp-content/uploads/2015/07/All_Outbreak_Control_Strategies.pdf

■ Treatment of areas and Surfaces

As part of standard infection control practices, regular cleaning and disinfection with a high quality disinfectant must be practiced which includes;

a. Disinfection at Airport, Railway and Bus Stations

Person to person contact during traveling is one of reasons for COVID-19 spread for this spread. Airports, railway and bus stations are most widely used public places where people different regions have contact with each other. Therefore, Government of Pakistan recommends following important measures;

- Treatment of aeroplane, trains and buses includes the treatment of aeroplane cabin, railway carriages, buses and coaches. Since in Pakistan most of the cases of COVID-19 have been reported from Karachi, Islamabad, Quetta, Sukkhar etc, therefore all flights, trains and buses must be disinfected with suitable disinfectant every time i.e. daily basis or at least alternate day. The treatment includes the application of disinfectants through;
 - Spraying with hand compression pumps
 - Cold fogging
 - Ultra-Low Volume (ULV) treatment
 - Wet-mopping and/or auto-scrubbing of floors of airports and stations
- Wear disposable gloves when cleaning and disinfecting surfaces. Gloves should be discarded after each cleaning. If reusable gloves are used, those gloves should be dedicated for cleaning and disinfection of surfaces for COVID-19 and should not be used for other purposes.

- Waiting hall and inside the cabin of aeroplane, train and bus must be disinfected using spray pumps, ULV and cold foggers etc.
- Smaller objectives like door knobs, handles, handrails of escalators, faucets, sinks etc should be treated through wiping 4-5 times in a day
- Ideally languages passengers must also be treated on arrival and at departure time
- Same practice and procedures should be adapted for other sites i.e. offices, restaurants, and courts etc

b . Household Level

At household level all frequently touched surfaces must be cleaned and disinfected daily basis. Such surfaces include chairs and tables, doorknobs and handles, light switches, toys, countertops, desks, phones, keyboards, computer mouse, toilets, faucets, and sinks etc.

<https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-your-home.html>

- If the surfaces are dirty, should be cleaned with soapy water or detergent and before disinfection. At household level most common EPA-registered household disinfectant i.e. bleach solution (hospitals:0.5%; Households 0.1 - - 0.2%) is best option. To prepare this bleach solution at household level;
 - If available bleach solution is 10%. Multiply this strength (10%) with 2 (10x2 = 20)
 - Deduct one from 20 (20-1 = 19). Now take 19 parts of water and 1 part of chlorine and 0.5% solution is ready for use.
 - 4-5 tablespoons should be mixed in 4 liter water OR 4 teaspoons bleach per quarter of water
 - Avoid the mixing of bleach with ammonia or any other cleaner as it may produce harmful gases
 - Ideally these household disinfectants should be used to wipe the small objects and surfaces (tables, hard-backed chairs, doorknobs, light switches, remotes, handles, desks, toilets, sinks etc) and also for mopping the floor. Better to use "Ready-To-Use" formulations which have been mentioned in list of recommended disinfectants.
 - For soft (porous) surfaces such as carpeted floor, rugs, and drapes, remove visible contamination if present and clean with appropriate cleaners indicated for use on these surfaces
 - With bleach, remember to wear gloves, open your windows, and be careful.
- In case of household with people isolated home care (e.g. suspected or confirmed with COVID-19);
 - Disinfect the entire home on daily basis with commercially available disinfectants applying through spray pumps, ULV or Clod foggers.

c. Office and other Working Places

Surfaces are same as above. However, one of the main source of transmission is commonly used computer key board which is difficult to clean due to narrow space between the keys and also the electricity-sensitivity of its hardware to liquids. Therefore such computers should have signs of proper hand hygiene before and after using the computers to minimize the risk of virus transmission. Ideally the key boards should be covered with commercially available plastic sheet which can easily be cleaned with an appropriate disinfectant. If such sheets are not available then use disinfectant wipes i.e. the use a 70% isopropyl alcohol wipe or Clorox Disinfecting Wipes. which may gently be used to wipe the hard, nonporous surfaces computer, such as the display, keyboard, or other exterior surfaces. However care must be taken to avoid getting moisture in any opening.

Note: To avoid the unnecessary contact with door handles and knobs etc (most commonly used surfaces), doors should be kept opened during working hours.

■ Methods of Use of Disinfectants

For effective prevention of COVID-19, disinfectants should be applied through spraying using hand compression pumps, Cold fogging, Ultra-Low Volume (ULV), Hand Sanitizers, Mopping, Wiping and complete washing.

<https://www.cdc.gov/coronavirus/2019-ncov/prepare/disinfecting-your-home.html>

■ Time Period and Frequency of Application of Disinfection

a. Time

Cleaning and disinfection must be immediately started when there is any case of COVID-19 (both suspected or confirmed).

b. Frequency

Frequency of application of disinfectant(s) mainly depends upon the disinfectants strength, intensity of disease, sensitivity of area/place etc. In case of outbreak of disease this practice should be continued for at least two months. During 1st month of outbreak, it should be on daily basis, for next month on alternate day basis

c. Duration

Generally in case of outbreak of disease this practice should be continued for at least two months. During early two weeks of outbreak, it should be on daily basis, for next two week on alternate day and then on every 3rd day. For individual laboratory confirmed case at household level, cleaning and disinfection should be continued for at least two weeks under the supervision of relevant experts.

■ Personal Protection

Cleaning, particularly disinfecting must be conducted by well trained personnel for safe and secure use of products. They must be reminded to follow all safety instruction according to label. Supervisor should ensure that they also have Material Safety Data Sheet (MSDS) and fully understood. After each application, all disposals should be put in a bag and tied and disposed as per directive of manufacturer with other waste. All personnel should wash their hands with soap for at least 20 seconds immediately after removing gloves or use an alcohol-based hand sanitizer if soap and water are not available. Soap and water should be used if hands are visibly contaminated.

List of Recommended Disinfectants

#	Active Ingredient (a.i)	Product Name	Target virus(es)	Application	Contact Time	Formulation type
1	Chlorine	Klorsept 17 (Org. Chlorine) clorox	Coronavirus	Spray, CF, ULV, moping & wiping	4 Min	Dilutable
2	Quaternary ammonia	Virocid	Coronavirus	Spray, fogging, Foaming	10 Min	Dilutable
3	Mycide GA	Protocol GA	Coronavirus	Spray, Cold F, Cleaning	4 Min	Ready-To-Use (RTU)
4	Hydrogen Peroxide (Peroxyacetic Acid)	Maguard 5626	Coronavirus	Spraying, mop-ping and wiping	10 Min	Dilutable
5	Hydrogen Peroxide (Peroxyacetic Acid)	Maguard 1522	Coronavirus	Spraying, mop-ping and wiping	10 Min	Dilutable
6	Quaternary ammonia (Isopropanol)	Discide Ultra Dis. spray	Coronavirus	Spray, Cold F, Foaming etc	30 Sec	Ready-To-Use (RTU)
7	Quaternary ammonia (ethnol)	Asepticare	Coronavirus	Spray, CF, ULV, moping & wiping	2 Min	Ready-To-Use (RTU)
8	Sodium Hypochlorite	CPPC Ultra Bleach 2	Coronavirus	Spray, CF, ULV, moping & wiping	2 Min	Dilutable
9	Sod. chlorite (Dischlorois.dihydrate)	Aseptrol S 10-Tab	Coronavirus	Spray, CF, ULV, moping & wiping	10 Min	Solid
10	Sodium Hypochlorite	Pure Ultra Bleach	Coronavirus	Spraying and wiping	5 Min	Dilutable
11	Sodium Hypochlorite	Disinfecting Spray with bleach	Coronavirus	Spraying, ULV and wiping	1 Min	Ready-To-Use (RTU)
12	Quaternary ammonia	512 Sanitizer	Coronavirus	Sanitizer	10 Min	Dilutable

