## **Cleaning guidelines during Covid-19 pandemic**

In the project, PandemicClean – Safe and Effective Cleaning in Pandemic Situation, information was gathered about what kind of cleaning instructions were given for cleaning during the Covid-19 pandemic.

Data was collected during spring and summer in 2022 from the following countries: Australia, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Norway, Romania, Switzerland, and the Netherlands. The instructions were mainly given by public authorities or organisations, and research institutes. Also, WHO, CDC, ECDC instructions were documented.

The extent, detail, and the content of the instructions varied. Some countries had very brief guidelines only emphasizing proper and thorough cleaning. Some countries had very detailed guidelines e.g. with instructions how to clean different surface materials and items, too. Usually, the most detailed instructions were given about suitable disinfectants. Guidelines on cleaning equipment or methods were rarely given.

Most commonly the instructions included general guidance to prevent spreading of coronavirus, but from some topics, guidelines were given also for places occupied with Covid-19 infected persons and for long-term care units with Covid-19 suspicion or infection.

Based on all the instructions, the following summary was compiled.

The summary is divided to different topics found on the instructions. No single guideline covered all the topics.

We hope this summary will be useful the next time you'll need to prepare pandemic cleaning guidelines and their content.

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Risk assessment General guidance to prevent spreading of coronavirus	Some guidelines highlighted the importance of assessing the risk for the employee who performs the cleaning, so that risks are minimized, and the right preventive measures will be taken.
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General guidance to prevent spreading of coronavirus	The cleaner should always be informed about Covid- 19 cases.
	Every company should organize communication actions towards employees in order to keep them informed of the situation in the building.
Detergent or disinfectant	
General guidance to prevent spreading of coronavirus	About detergents: Almost all the countries recommended all-purpose cleaner for general use.
	Some guidelines had instructions also on soft or porous surfaces (eg. fabric or leather) and it was guided to seek advice from the manufacturer.
	It was also mentioned that if soft or porous surfaces require regular cleaning, such as seats in offices, or in vehicles, it may be more effective to use a removable washable cover or a disposable cover and replace these as regularly as you would clean the surfaces.
	About disinfectants: Disinfectant or disinfecting multi-purpose cleaner was recommended for toilet surfaces except floors.
	That might be a general guideline or a guideline "if needed".
	"If needed" was depending e.g. on the likelihood of contaminated material being present at the workplace (e.g. retail environment vs. small workplace).
	As suitable disinfectants against Covid-19 were mentioned products based on - chlorine (hypochlorite / hypochlorous acid), 1000 ppm (0.1%) - alcohol (ethanol / isopropyl alcohol), concentration of 70-85% v / v (63-80% w / w) - hydrogen peroxide - triamine - quaternary ammonium compounds.
	There must be documentation of the effect of disinfectants in the form of tests in accordance with relevant EN standards, which document sufficient killing effect at the recommended use concentration and exposure time. The manufacturer's documented



	instructions regarding concentration and exposure
	time must always be followed.
	Spraying of disinfectants to surfaces was not recommended.
	For soft or porous surfaces disinfectant was not recommended, because the disinfectant needs an extended contact time with the surface.
	<ul> <li>The safety aspects were noticed:</li> <li>Disinfection products should not be used while children are present within the area.</li> <li>Ventilate the space when using cleaning products.</li> <li>Also, pay attention to whether the surface material can withstand the chemical in question without being damaged.</li> </ul>
	<b>Note:</b> Most disinfectants need a long contact time to kill microbes. Often, in real-life situations it not possible to have surfaces moist or wet for the required contact time (e.g. one minute or more). So, the disinfection effect may not be achieved.
	Attention was also paid to incorrect disinfection and poor practices: - not cleaning the surfaces completely - skipping corners or edges - not using the appropriate disinfectant at the correct dilution rate.
	It was also highlighted that normal and careful cleaning is more efficient and prevents a false sense of safety. Thorough cleaning with a normal detergent (or microfibre without detergent) effectively removes all microorganisms together with the dirt, including virus particles.
	So, disinfection was not recommended, instead proper cleaning of surfaces and good hand hygiene.
Guidance for places occupied with Covid	Often, all-purpose cleaner was recommended.
infected persons	Disinfection was recommended for frequently touched surfaces, sanitary facilities, and visible stains of body fluids.
	The method was usually "first clean, then disinfect".





	Guidance for long-term care units with Covid	Multi-purpose cleaner was recommended for
	suspicion or infection	- floors
		- public places
		<ul> <li>not frequently touched surfaces (ceiling, walls, blinds)</li> </ul>
		- resident areas.
		Disinfectant for
		- frequently touched surfaces in the resident room
		and for toilet cleaning.
UV	<b>C light, vapors</b> General guidance to prevent spreading of	LIV light fogging fumigation and wide area or
	coronavirus	UV light, fogging, fumigation, and wide-area or electrostatic spraying were not mentioned as
	coronavirus	primary methods of surface disinfection.
		UV-C light was said to be an effective method to kill
		microbes when the application is correct for the
		purpose, and it is used according to the instructions.
		Especially when it comes to small, complicated
		shapes, the benefits of UV-C come into play.
		Disinfection using irradiation with eg. UV-C light or
		preparation of a gas, vapor or mist containing a
		disinfectant (eg ozone, hydrogen peroxide or
		chlorine) requires prior cleaning.
		There must be documentation of the effect of the
		disinfection method in the form of tests according to
		relevant (possibly modified) standards, which
		document a sufficient killing effect during the
		recommended use and exposure time.
		But it was also said that disinfectant fogging and
		ultraviolet disinfection is not recommended,
		because the effectiveness of these methods, such as
		ultrasonic waves, high intensity UV radiation, and
		LED blue light, against the virus that causes COVID-
		19 has not been fully established.
CIE	control guidance to provent spreading of	If there was a guideling for cleaning tools might filter
	General guidance to prevent spreading of coronavirus	If there was a guideline for cleaning tools, microfibre cloths and mops were mentioned.
		Mostly instructions were given about the
		importance to clean daily all the cleaning equipment
		and the cleaning room.
		It is important to have cleaning cloths, mops and
		washing capacity available, in the event of an
		outbreak.





		For unexpected situations, all companies should be prepared to buy disposable products that are designed to clean and fight viruses and bacteria.
		For vacuuming carpets, a vacuum with a high- efficiency particulate air (HEPA) filter is needed.
		It was also mentioned that workplace public premises must be cleaned using different equipment than the premises used by employees.
	Guidance for places occupied with Covid infected persons	Attention to cleaning the equipment and allowing them to dry completely before re-use was highlighted.
		When possible, using disposable cleaning cloths was recommended. So, every organization should be prepared for pandemic situations and have disposable products in stock.
		Cleaning equipment used in the infected room should be cleaned and disinfected after use with - virucidal disinfectant or - 0,1 % sodium hypochlorite.
		When vacuuming a vacuum equipped with high- efficiency particulate air (HEPA) filter and bags should be used.
		While vacuuming, in-room, window-mounted, or on- wall recirculation HVAC systems should be temporarily turned off to avoid contamination of HVAC units.
	Guidance for long-term care units with Covid suspicion or infection	Furniture surfaces: microfibre cloths in cleaning of rooms and public places. For toilet cleaning disposable cloths. Multipurpose tools (e.g. mop frames) shall be disinfected in a washer-disinfector or wiped clean with a disinfectant. Also, single-use paper or a clean tissue for cleaning in order to limit the spreading of the virus.
Cle	eaning methods	
	General guidance to prevent spreading of coronavirus	The general guidance was to have proper, careful cleaning, but it was not clarified what that means in practice.
		For toilet cleaning moist wiping was recommended.



Guidance for long-term care units with Covid	Damp and moist methods were recommended.
suspicion or infection	
	Vacuuming carpets (HEPA filter). No vacuuming in a room or space that has people in it.
Cleaning plan or program	1
General guidance to prevent spreading of coronavirus	The need for thorough and good cleaning was emphasized.
	Cleaning from cleaner areas and proceeding towards dirtier areas. Recommendations for order of cleaning in room and toilet were given.
	Attention should be paid to - frequently touched surfaces and horizontal surfaces and personal work tools / equipment within a radius of one meter from the user - public toilets, bathroom sinks and sanitary facilities used by several people.
	Guidance also for employees and students to wipe their own desk/workplace, tablets, computers/keyboards and other equipment that is shared by themselves when arriving the room. Various types of cleaning equipment (such as cleaning cloths and surface disinfectants) should be available for them.
	<ul> <li>Example: School cleaning in different situations.</li> <li>Cleaning is divided in 4 types:</li> <li><b>1. Regular school cleaning</b> <ul> <li>in all schools before or after school hours</li> <li>with detergent.</li> </ul> </li> <li><b>2. Day cleaning</b> <ul> <li>targeting bathrooms, supplies, bubblers and frequently touched surfaces</li> <li>an additional cleaning of all toilet blocks and drinking facilities</li> <li>between recess and lunch breaks</li> <li>as well as additional cleaning of high-touch areas.</li> </ul> </li> <li><b>3. Enhanced cleaning</b> <ul> <li>provides a 25% increase in regular school cleaning in terms of cleaning hours</li> <li>targeting high traffic area, with a focus on</li> </ul> </li> </ul>
	touchpoints and surfaces - done before or after school. 4. Environmental cleaning (or deep clean)
	<ul> <li>of the entire school</li> <li>the school is typically closed for one to two days</li> <li>specialist cleaners carry out</li> </ul>





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		<ul> <li>will only take place on a case-by-case basis where it has been assessed as required by the school, e.g. large and poorly controlled outbreaks.</li> </ul>
1 1	idance for places occupied with Covid ected persons	Instructions for thorough cleaning and disinfection all areas of suspected contamination were given. The instructions were partially different from each other. Instructions were given e.g. to - close off the affected area before cleaning and disinfection - clean the room when the sick person is not in the room if possible. Effective airing and ventilation before the cleaning speeds up the exit of the virus (e.g. open outside doors and windows). - clean and disinfect before any workers return to affected areas. No need to close the whole workplace. - to evaluate the need to close the workplace depending on factors such as the size of the workplace, nature of work, number of people, and suspected areas of contamination in a workplace. - close off areas used by the person who is sick and
		<ul> <li>close off areas used by the person who is sick and do not use those areas until after cleaning and disinfecting</li> <li>wait, if possible, at least several hours, before you clean and disinfect.</li> </ul>
Cleani	ing frequency	
Gei	neral guidance to prevent spreading of onavirus	<ul> <li>Different views:</li> <li>Regular cleaning vs.</li> <li>Cleaning surfaces and fittings more frequently when the rooms are <ul> <li>visibly soiled</li> <li>used repeatedly by several people and after any spillage.</li> </ul> </li> </ul>
		Often recommended: cleaning workplaces at least daily or as often as determined to be necessary.
		If no one with confirmed or suspected COVID-19 has been in a space, cleaning once a day is enough.
		More frequent cleaning or using disinfectant in cases of - high traffic areas, with many people - poor ventilation in the space - no access to handwashing or hand sanitizer. - the space is occupied by people at increased risk for severe illness from COVID-19.



Guidance for places occupied with Covid infected persons	Recommendations depending on the situation:
	If less than 24 hours have passed since the person who is sick or diagnosed with Covid-19 has been in the space, cleaning and disinfecting.
	If more than 24 hours have passed since the person who is sick or diagnosed with Covid-19 has been in the space, cleaning is enough. Disinfecting also possible depending on certain conditions or everyday practices required by your facility.
	If more than three days have passed since the person who is sick or diagnosed with Covid-19 has been in the space, no additional cleaning beyond regular cleaning practices is needed.
Guidance for long-term care units with Covid suspicion or infection	Was noted that depends on the local number of Covid-19 cases.
	Resident rooms: Frequently touched surfaces daily, floor when needed or at least twice a week Toilet in a room: Daily Public toilets: Daily or more often if needed Public places: Frequently touched surfaces, and if needed floors, twice a day or more frequently Devices with screens and keyboards: Daily
Personal protection	
General guidance to prevent spreading of coronavirus	Different kind of guidance: -Minimum: disposable (nitrile) gloves or reusable gloves - For toilet cleaning: disposable gloves. Also mentioned long protective gloves that go up to elbow - In addition, if needed, disposable coat or plastic apron over uniform
Guidance for places occupied with Covid infected persons	<ul> <li>Disposable gloves</li> <li>Safety eyewear to protect against chemical splashes</li> <li>Disposable apron if secretions</li> </ul>
Guidance for long-term care units with Covid suspicion or infection	Often recommended: - Disposable gloves - FFP2 respirator without ventilation (protecting the resident) - Surgical mask is enough in shorts visits in a room - Face shield or eye protection - Long-sleeved protective gown and/or apron





		- Protective gloves
Wa	aste management	
	General guidance to prevent spreading of coronavirus	Monitor waste bins and do not let them get more than three-quarters full. Waste bins are emptied daily, especially in public premises. The collected bin bags must be closed tightly.
	Guidance for places occupied with Covid infected persons	Place waste generated during cleaning in a separate waste bag, close the bag tightly and dispose of it immediately by placing it in the mixed waste container.
Со	rona cleaning training	
		<ul> <li>A proposal for cleaner training topics was presented:</li> <li>What shall be cleaned, contact points and personal surfaces part of the daily cleaning</li> <li>Hygienic cleaning and basic hygiene</li> <li>The correct order of cleaning</li> <li>Hand hygiene</li> <li>The use of disposable gloves</li> <li>Importance of using a clean work suit daily</li> <li>How to wash work clothes, cleaning cloths and mops according to national infection hygiene guidelines.</li> <li>The employer should ensure that cleaning plans and routines are updated, and employees receive training in cleaning and how to use protective equipment.</li> <li>Also mentioned <ul> <li>Ensure cleaning staff are trained on proper use of cleaning and disinfecting products (read labels,</li> </ul> </li> </ul>
		safety precautions and PPE needed) - Train to recognize the symptoms of Covid-19 - When to use PPE, what PPE is necessary (using products), how to properly put on, use, and take off PPE, and how to properly dispose of PPE - Proper disposal of regulated waste and PPE
Ot	her	
	General guidance to prevent spreading of coronavirus	Visualization and pictures of what should be cleaned in different room types.