

Guide to Reopening Pools and Waterfronts

Lifesaving Society guidelines for reopening aquatic facilities
after COVID-19 closure

June 2020 Edition



LIFESAVING SOCIETY
The Lifeguarding Experts



LIFESAVING SOCIETY

The Lifeguarding Experts

Guide to Reopening Pools and Waterfronts

Lifesaving Society guidelines for reopening aquatic facilities after COVID-19 closure

Published by the Lifesaving Society, 5516 Spring Garden Road, Halifax, N.S. B3J 1G6
P: 902-425-5450 ext.323 • F: 902-425-5606 • E : experts@lifesavingsociety.ns.ca
www.lifesavingsociety.ns.ca • www.lifeguarddepot.com

June 2020.

Copyright 2020 The Royal Life Saving Society Canada. Reproduction, by any means, of materials contained in this book is prohibited unless authorized by the publisher.

The Lifesaving Society is Canada's lifeguarding experts. The Society works to prevent drowning and water-related injuries through its training program, Water Smart® public education initiatives, drowning research, aquatic safety management services and lifesaving sport.

The Society establishes aquatic safety standards and consults widely on aquatic safety issues for aquatic facility owners and operators, governments, agencies and the judicial system.

Annually, over 1.2 million Canadians participate in the Society's training programs. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards. The Society is an independent, charitable organization educating Canadian lifesavers since the first Lifesaving Society Bronze Medallion Award was earned in 1896.

The Society represents Canada internationally as an active member of the Commonwealth Royal Life Saving Society and as Canada's Full Member in the International Life Saving Federation. The Society is the Canadian governing body for lifesaving sport – a sport recognized by the International Olympic Committee and the Commonwealth Games Federation.

Lifesaving Society®, National Lifeguard Service® and Water Smart® are registered trademarks of the Royal Life Saving Society Canada. Trademarks other than those owned by the Lifesaving Society used in this document belong to their registered owners.

Table of Contents

Introduction | 4

Background

General Recommendations | 5

Reopening Timeline

Facility Staff

Employee Equipment

Employee Personal Protective Equipment (PPE)

Facility Admission

Facility Access

Deliveries

Communicating Physical Distancing Measures

Aquatic Facility and Amenities

Aquatic Facility Inspection and Activity Assessments | 15

Inspection of the Facility

Activity Assessment

Sample Signage

Programming Aquatic Facilities | 20

General

Patron Equipment

Recreational Swimming

Lane / Lap Swimming

Day Camps and Groups

Organized Activities

Staff Training Plan | 25

Aquatic Policy and Procedures Update

First Aid and Resuscitation

Personal Protective Equipment (PPE) for Aquatic Staff

Aquatic Facility Maintenance, Cleaning and Disinfection | 33

Information

Background / Rationale

Implementation

Cleaning and Disinfecting and Personal Protection

Where to Clean

What to Clean With

Create a Cleaning Procedure

Specific Equipment

Safe Water Management of Aquatic Facilities | 37

Chlorine / Bromine

Other Tests

Water Testing Requirements

References

Community Waterfront Safety | 39

Swimming Area Assessments

Community Education

Appendices | 42

Appendix A: Progressive Reopening Phases Model

Appendix B: Reopening Timeline Model

Appendix C: Operator's Daily Checklist

Appendix D: WHO Procedure to Remove Gloves

Appendix E: WHO Procedure to Remove Personal Protective Equipment

Appendix F: Access and Circulation Layout Model

Appendix G: WHO How to Handwash Signage

Appendix H: Recreational Swimming / Day Camp and Groups Organization Model

Appendix I: Lanes / Lap Swimming Organization Model

Appendix J: Lifeguard Training Model

Appendix K: Rescue Ready Assessment Recommendations

Appendix L: COVID-19 Guidelines for In-water Rescue

Appendix M: COVID-19 Protocols for Safety Education and Rule Enforcement

Appendix N: First Aid and Resuscitation Guidelines for COVID-19

Appendix O: COVID-19 Decision Tree for First Aid & Resuscitation

Appendix P: Lifeguard Personal Protective Equipment

References | 65

Acknowledgements

We thank and acknowledge the Lifesaving Society's National Standards Commission for its work in the development of many of these guidelines. In addition, we recognize and thank the Lifesaving Society BC and Yukon for their compilation of this data. This document and its contents will ensure swimming pool and waterfront operators have the guidance to safely reopen their aquatic venues in light of the COVID-19 pandemic.

Note: These guidelines are meant to assist facility owners, operators and Lifesaving Society leadership personnel to adapt their facility's operation to mitigate the risk to staff and public health posed by COVID-19.

The guidelines reflect the best available data at the time they were prepared and may require revision as new information becomes available. Examples used within the document do not guarantee the prevention of aquatic-related incidents or disease transmission and do not replace other strategies for promoting health and aquatic safety.

The *Guide to Reopening Pools and Waterfronts* does not replace or supersede local, provincial/territorial or federal legislation or regulations or directives from the Ministry of Health and Medical Officer of Health.

Introduction

The COVID-19 pandemic has generated questions and concerns about potential exposure to the virus when aquatic facilities and waterfronts reopen.

The objective of this document is to assist owners and operators of aquatic facilities to minimize the risk of COVID-19 transmission to employees and patrons when facilities reopen by providing guidance to facility operators and aquatic staff at swimming pools and waterfronts.

Owners and operators should also review Lifesaving Society Canada's National Standards. All of these guidelines are based on expert opinion and evidence-based research from many credible health organizations throughout Canada and globally. Recommendations should be adapted to meet local conditions of the disease burden as well as resource availability.

The Lifesaving Society continues to reassess the public health risk based on the best available evidence as the COVID-19 situation evolves. These recommendations will be updated as additional information becomes available.

Background

Aquatic recreational activities have many physical and mental health benefits for the population. In the context of climate change, swimming is an accessible cooling measure to better adapt to increasing and extreme heat conditions.

Swimming is the second most popular activity (after bicycling) in Canada among school-age children 5 to 12 years of age, thus contributing to the adoption and maintenance of healthy lifestyle habits. To take full advantage of its many benefits, it is imperative that the population be able to participate in aquatic activities in a safe manner and minimize potential health risks.

Less than 1% of all fatal drownings in Canada occur in lifeguard supervised swimming locations. Aquatic facilities provide an essential public service at all times and especially during heat waves; opening them is part of many public health injury prevention plans. Therefore, as COVID-19 poses a public health threat, it is essential to address operational concerns for aquatic facilities while maintaining the prevention measures recommended by provincial/territorial public health authorities.

In the event of increasing summer temperatures and heat wave health advisories, in consultation with local health authorities, owners and operators of public aquatic facilities need to plan to open their pools and waterfronts to allow the public to cool off while continuing to adhere to all current COVID-19 precautions.

The Lifesaving Society advises owners, operators, lifeguards, aquatic instructors and coaches to follow the existing recommendations outlined on the World Health Organization (WHO) website. Refer to the Public Health Agency of Canada, the Centers for Disease Control and Prevention (CDC) recommendations and guidelines provided by provincial and territorial public health authorities.

General Recommendations

In summary, the owner and/or operator should:

1. Create a plan for the reopening of aquatic facilities according to provincial and territorial health authority requirements.
2. Ensure that every employee suspected or confirmed to have contracted COVID-19 stays home or seeks medical attention and has a detailed plan to manage their return to work.
3. Establish a strategy for safe employee access to the facility.
4. Develop human resource policies that are fully compliant with existing workplace health and safety regulations and labour codes.
5. Avoid sharing equipment and supplies between employees, or disinfect shared equipment before re-use.
6. Ensure employees are provided with the appropriate personal protective equipment (PPE) for the work being performed, and that the equipment is disposed of or cleaned and sanitized between users.
7. Post signs at the facility entrance to inform all bathers that:
 - a. patrons may not enter the facility if they suspect they have COVID-19 symptoms
 - b. if admitted, maintain social distancing of 2 m from other bathers and employees
 - c. all patrons maintain proper hygiene when in the facility.
8. Provide facility access with one entry point and a separate exit point.
9. Install physical markers on the floor or walls (cones, lines, stickers, wooden structures, etc.) that indicate appropriate 2 m spacing distance for patrons waiting in line.
10. Ensure that a physical barrier is provided between the cashier and the client and that no physical contact is made between the employee and the patron.
11. Take measures to avoid crowds gathering or long waiting times such as a reservation system giving patrons a time limitation for use of the aquatic facility.
12. Encourage patrons, where possible, to shower at home before and after swimming.
13. Ensure that the occupancy rate in changerooms is reduced to allow physical distancing, and that the total occupancy always allows a minimum space of 5 m² per person.
14. Ensure delivery personnel/suppliers drop off goods at a designated delivery location.
15. Limit the exchange of paperwork; use electronic signatures on contracts or delivery forms.
16. If a bathroom is available on the pool deck, encourage bathers to use this toilet to avoid patrons from entering other areas of the facility.

17. Post signs to inform patrons on how to do a proper hand washing.
18. Ensure that surfaces, sinks and toilets are cleaned and disinfected regularly.
19. Educate patrons that treated pool water is an effective disinfectant and that risk while in contact with treated pool water is considered minimal.
20. Use hard-surface disinfectants that meet Health Canada requirements for viral pathogens. These authorized disinfectants may be used against, the coronavirus that causes COVID-19.
21. Use antiseptic/antibacterial skin cleansers or hand sanitizers that meet Health Canada's requirements for emerging viral pathogens. The list of authorized products is available online.
22. Ensure that policies for the use of diving boards, waterslides and rope swings are adjusted to establish physical distancing measures.
23. Prevent access to whirlpools (including hot tubs and spas), saunas and steam rooms which present a higher risk of COVID-19 contamination.

Reopening Timeline

1. Determine when activity can resume according to provincial/territorial health authority recommendations. Consider the example of a *Progressive Reopening Phases Model* (Appendix A) in order to plan a progressive reopening of aquatic facilities.
2. Create a timeline with milestone steps. See Appendix B: *Reopening Timeline Model*.
3. Stay in contact with local aquatic community, clubs and partners to identify their needs.
4. Order pool chemicals, first aid equipment, personal protective equipment (PPE) and other goods as soon as possible to avoid shortage and delivery delay.
5. In coordination with the provincial/territorial health authority, create an emergency plan for a possible outbreak. Assess if community members are at higher risk for COVID-19 infection and plan accordingly.

Facility Staff

1. Owners and operators of aquatic facilities should have a detailed plan to manage the return to work for their employees to help ensure the workplace is not a source of COVID-19 transmission. The approach must be proactive and focus on the protection of the workers. Employers also have a responsibility to provide appropriate education and training to all facility employees.
2. Establish a daily checklist. See Appendix C: *Operator's Daily Checklist*.

3. Screen employees daily by asking common questions to ensure they do not have COVID-19 symptoms.
4. Follow your established employee sickness and return-to-work protocols.
5. Higher risk employees of severe illness from COVID-19 (e.g., older adults and people of any age who have serious underlying medical conditions) should inform the employer of their condition to determine if it is safe for them to resume work. Such individuals should not reintegrate into the workplace until their provincial/territorial health authority confirms it is safe to do so.
6. Develop human resource policies that are fully compliant with existing workplace health and safety regulations and labour codes.
 - a. Under health and safety legislation, employees retain the right to refuse work if they believe the workplace and their duties may cause them harm. For more information, consult the Canadian Centre for Occupational Health and Safety and provincial/territorial legislation and regulations.
 - b. Workplace health and safety committees have a legal obligation to participate in the development of any workplace prevention and preparation strategies dealing with the virus.
7. Communicate exceptional return-to-work policies to all facility and aquatic staff and ensure they follow them.
8. Employees must wash their hands when arriving and leaving the aquatic facility, and before and after:
 - a. eating
 - b. breaks
 - c. smoking
 - d. blowing one's nose, coughing, or sneezing
 - e. going to the toilet
 - f. being in contact with animals or pets
 - g. using shared equipment (e.g., water test kit)
 - h. providing routine care for another person who needs assistance
9. Personal items and clothing (backpacks, jackets, shoes, etc.) brought in by staff members should be kept to a minimum. Where staff must bring items in, they should be stored separately, with adequate space between each staff member's items (e.g., leave a hook between items on a coat rack, taped off spaces on the floor in a storage area, render bags available to store items).
10. Staff lockers should be emptied and sealed. If they are not shared and required, they should be sanitized before use.
11. Enforce physical distancing of 2 m at all times. Operator could stagger employees' time of arrival/departure and lunch breaks.

12. Prohibit events and meetings that require close contact; rather, use telephone or online technology.
13. Utilize consistent work teams (same workers in shift work) to avoid increasing the number of interactions.
14. Provide information on proper cough etiquette.

Employee Equipment

1. Equipment should not be shared between employees.
 - a. If possible, ensure that each employee has their own equipment needed for each shift (e.g., one rescue tube per lifeguard).
 - b. Ensure there is no sharing of equipment (pen, stopwatch, etc.), condiments and common use food dispensers (ketchup, mustard, salt, pepper, etc.).
 - c. Do not share cups, glasses, plates, utensils. Wash in hot water with soap.
 - d. Any equipment or tool that must be shared needs to be cleaned with soap and disinfected after each use and at the end of each shift.
2. Clean staff room table before and after each use.
 - a. The table should be covered with an easily washable surface (plastic or smooth surface).
 - b. The staff room, as well as its appliances and accessories (refrigerator, microwave, chairs, handles, etc.), must be cleaned every shift to avoid cross contamination.
3. Remove non-essential items (magazines, newspapers, trinkets) from common areas.
4. If possible, do not store equipment, first aid and resuscitation equipment, PPE or similar items in the lunchroom.
5. Deck/beach staff should change clothes before and after their shift.
 - a. Remove work clothes and/or bathing suit at the end of the shift.
 - b. Used clothes and/or bathing suit should be placed in a bag until cleaned.
 - c. Make bags available, if necessary.
 - d. Clean clothes using laundry soap and hot water.

Employee Personal Protective Equipment (PPE)

1. Ensure that each employee has the PPE needed for their shift and avoid sharing these. If this is not possible, disinfect the equipment between each exchange.
2. PPE recommendations vary for employees and is dependent on the duties they perform in the workplace. Use adequate PPE when performing cleaning routines or administering first aid.

3. Where possible, designate a first aid responder equipped with more robust PPE equipment (e.g., gown, visor) to prevent undue delays in responding to first aid or resuscitation requirements caused by donning appropriate PPE.
4. When wearing gloves, avoid touching the face.
 - a. Follow the procedure prescribed by the World Health Organization (WHO) when removing gloves. See Appendix D: *WHO Procedure to Remove Gloves*.
 - b. Follow the procedure prescribed by the WHO in order to remove personal protective equipment (PPE) while avoiding contamination. See Appendix E: *WHO Procedure to Remove PPE*.
5. Staff should not share personal first aid equipment (fanny packs).

Facility Admission

1. At the entrance, signs must inform all bathers that:
 - a. Patrons must not enter if they suspect they have COVID-19 or if they have any of the known COVID-19 symptoms.
 - b. Patrons must maintain physical distance of 2 m from other patrons and staff.
 - c. Cough into your bent elbow, or into a tissue that you throw away immediately after use, then wash hands immediately.
2. On arrival, patrons must wash their hands with soap and water or hand sanitizer (60% alcohol or higher) for 20 seconds.
3. Screen or assess patrons to ensure they do not have COVID-19 symptoms by asking common questions.
4. Where appropriate and where local protocols allow, screen all employees' and patrons' temperature before admittance. Those with temperatures at or above 37.8 C or 100 F should not be admitted.
5. Post signage which illustrates the layout plan of the aquatic facility including specific COVID-19 measures such as a circulation path around the pool allowing patrons to familiarize themselves with it prior to entry.
6. Admission fee payment methods should allow for minimal contact between employees and patrons.
 - a. Install a physical barrier between the cashier and patron.
 - b. If a fee is charged, avoid cash transactions by accepting alternate payment methods.
 - c. If cash is accepted, specific procedures to prevent contamination need to be established (e.g., employee should wear gloves and/or wash hands before and after handling money).

7. If bracelets (wrist-bands) are required, the operator must use self-applied bracelets and provide waste containers for their disposal.
8. Employees located at an admission station should be protected by glass or plexiglass.
 - a. If this is not possible, provide a face shield and train employees to don and remove it safely.
 - b. If the employee is located at an outdoor admission station, sun protection must be provided (e.g., umbrella).
9. Depending on the expected level of use of the aquatic facility, some measures may need to be put in place to avoid crowd gathering or long waiting times, for example:
 - a. A reservation system.
 - b. Swim time limitations to allow other bathers to use the facility.
10. Additional signage should inform people to avoid aquatic facilities if they are at high risk for severe illness from COVID-19 based on provincial/territorial health authorities.

Facility Access

1. Provide facility access with one entry point and a separate exit point (see Appendix F: *Access and Circulation Layout Model*). If both entry and exit points are located at the same place, put measures in place to provide physical distancing of at least 2 m, for example:
 - a. Assign employee to supervise entry and exits.
 - b. Install signage to direct patrons to enter one at a time.
 - c. Provide floor markings to guide patron travel in, through and out of the facility.
 - d. Install a physical separation with a transparent material which can be cleaned and disinfected frequently (e.g., plexiglass) and of at least 2 m in height to separate the entry and exits allowing patrons to enter and exit simultaneously.
2. Install physical markers on the floor or walls (cones, lines, stickers, etc.) that indicate appropriate 2 m spacing for patrons waiting in line at the cash desk or entrance.
3. Patrons may keep non-medical face masks on until they enter the pool. Each personal face mask should be stored in a labelled disposable bag during activity. The mask should also be worn at all times by those accompanying the user (parents of children, for example).
4. For outdoor aquatic facilities, access to the pool deck should be available without going through a building or changing room (e.g., using a service gate).
5. For indoor aquatic facilities, access should be via the shortest direct path to the aquatic facility.

- a. Where possible, avoid access through change rooms (e.g., using a service door from the reception).
 - b. Bathers could arrive in their bathing suit and access to change rooms be limited to bathers who need to use the bathroom.
6. If a shower is available near the pool deck (without the need to enter the change room), consider advocating its use. When no showers are available on the pool deck and to avoid circulation in the changing rooms, operators could encourage good pool hygiene by asking bathers to shower at home before and after facility use.
7. The occupancy rate of change rooms should be reduced to allow physical distancing. For example, only 1 in 2 lockers should be used and total change room occupancy should allow a minimum space of 5 m² per person.
8. Operator should institute one-way traffic flow around the pool and changeroom areas using appropriate signage or other methods.

Deliveries

1. Operators should request that suppliers send the same delivery person to their facility for drop-offs.
2. Operators should require that all drop-offs from outside suppliers be accepted by the same employee.
3. Ideally, organize tasks so that delivery personnel and suppliers are able to drop goods at the entrance or at a designated delivery location of the facility to avoid the coming and going of workers from other companies on the premises.
4. Where possible, limit the exchange of paperwork to a minimum (e.g., electronic signature of contracts or delivery notes). When paper documents are required:
 - a. Place the documents on a clean surface to transmit and retrieve the documents respecting the distance of 2 m between individuals.
 - b. Employee and delivery person do not use the same pen.
 - c. Provide pens in case delivery person does not have one.
 - d. Clean pens with a disinfectant wipe after use.

Communicating Physical Distancing Measures

1. Inform all employees of the physical distancing measures that are in place at the facility by way of memorandums, on employee social media groups and during training sessions.
2. Inform the public of the physical distance measures in place at the facility through all communication resources and social media to which they have access.
3. Post the signs and symptoms of COVID-19.
4. Update staff manuals and safety plans to include all physical distancing measures.

5. If applicable, inform and educate the public, parents and caregivers of their responsibility in maintaining physical distancing.
6. Indicate on the entrance door to an area (e.g., pool lobby, change room), the maximum number of people allowed in the room at one time.
7. To ensure distancing measures are respected by employees and patrons, operators should consider adding staff, especially in the early days of reopening, as many adjustments should be expected.

Aquatic Facility and Amenities

Toilets

1. If a bathroom is available on the pool deck, encourage patrons to use it to avoid entry into other areas of the facility.
2. Ensure that a toilet is available to employees and patrons as well as a sink supplied with clean, temperate water.
 - a. Provide soap or another recommended cleaning substance.
 - b. Provide roll-up towels or paper towels (hand dryer could be less effective).
3. Signage should remind people of hand washing as well as the proper procedure (see Appendix G: *WHO How to Handwash Signage*).
4. Ensure that toilets are disinfected on a regular basis.
5. Hand sanitizer should be made available where possible at the entrance/exit of the washroom.
6. Some urinals and sink basins may need to be decommissioned (e.g., taped off) if 2 m (6 ft.) spacing cannot be maintained in the current set up.

Diving boards, waterslides and rope swings

1. Install physical markers on the floor or walls (lines, stickers, cones, etc.) to indicate the distance of 2 m between patrons at the queues.
2. Provide floor markings to guide patrons. Where possible line up bathers on the deck and not the stairs leading to the device entrance.
3. Clean all touch points on diving boards and waterslides as usual.
4. Provide signage to remind bathers to avoid putting their unwashed hands to their eyes, nose or mouth, especially after touching railings.
5. Rope swings represent a higher transmission risk and their use should be prohibited in early phases of reopening.

Wading pools

1. Follow the same guidelines as for swimming pools.

Water playgrounds (Splash pads)

1. Even when operating with effective disinfection, maintenance or operating procedures, water playgrounds (splash pads) present higher risk of COVID-19 contamination due to:
 - a. Design and features that make it more difficult to maintain appropriate physical distancing.
 - b. The size and design of the facility creating a challenge to keep surfaces clean and disinfected.
 - c. The potential for the virus to be spread when patrons touch common surfaces, then touch their unwashed hands to eyes, nose or mouth.
 - d. The common use of fresh water with no added disinfectant (bromine or chlorine).
2. Operate water playgrounds only while there is no ongoing community spread of COVID-19 in your region in accordance with provincial/territorial health authority recommendations.
3. Install a fence around the perimeter of the water playground to control access by identifying a separate entrance and exit.
4. During opening hours, always ensure the presence of an employee able to ensure access control and patron supervision.
5. Conduct regular disinfection of common contact surfaces, such as water play activation mechanisms, nozzles, rainbows, etc.
6. If using treated water for water playgrounds, maintain at least the same disinfection levels of water quality as swimming pool water standards.
7. Adopt and follow all other guidelines as described in this document.

Waterparks

1. Even when operating with effective disinfection, maintenance or operating procedures, water parks present a higher risk of COVID-19 contamination due to:
 - a. Design and features that make it more difficult to maintain appropriate physical distancing.
 - b. The size and design of the facility creating a challenge to keep surfaces clean and disinfected.
 - c. The potential for the virus to be spread when patrons touch common surfaces, then touch their unwashed hands to eyes, nose or mouth.
2. Operate water parks only while there is no ongoing community spread of COVID-19 in your region in accordance with your provincial/territorial health authority recommendations.

3. Reduce bather loads to maintain physical distancing measures.
4. Prioritize and schedule the operation of features and installations where supervision and distancing measures are in place to allow easier cleaning and disinfection.
5. Adopt and follow all other guidelines as described in this document.

Whirlpools, saunas and steam rooms

1. Even when operating with effective disinfection, maintenance or operating procedures, whirlpools (including hot tubs and spas), saunas and steam rooms present a higher risk of COVID-19 contamination due to:
 - a. Design and features that make it more difficult to maintain appropriate physical distancing.
 - b. The size and design of the facility creating a challenge to keep surfaces clean and disinfected.
 - c. The potential for the virus to be spread when patrons touch common surfaces then touch their unwashed hands to eyes, nose or mouth.
2. Operate whirlpools, saunas and steam rooms only while there is no ongoing community spread of COVID-19 in your region in accordance with your provincial/territorial health authority recommendations.
3. Reduce bather loads to maintain physical distancing measures.
4. Prioritize and schedule the operation of features and installations where supervision and distancing measures are in place to allow easier cleaning and disinfection.
5. Adopt and follow all other recommendations as described in this document.

Aquatic Facility Inspection and Activity Assessments

To reduce the risk of transmission of COVID-19, aquatic facility inspections and activity assessments should be completed prior to reopening. An inspection of the facility should be conducted first noting public and staff access points, frequently touched surfaces, objects, equipment and travel routes. Areas of concern (pinch points, access and exit doors, equipment rooms, common collection areas such as viewing areas) should be noted and mapped as well as possible strategies that would rectify these concerns such as: posting staff at specific spots for information sharing/questions, hand washing/sanitizing stations at locations, signage, etc.

Inspection of the Facility

Following the inspection, a review of planned bather activities should be completed. This should then be compared to frequently travelled routes within the facility by the public and staff. Some modifications to the aquatic facility and its operating procedures may be necessary because of this assessment. Logs of daily checks should be created and maintained.

Specific areas of concern include:

Entrance area

In the entrance area, maximize the distance between all individuals to ensure adequate physical distancing of at least 2 m (e.g., patrons and patrons, patrons and staff). The following measures will assist with the management of a safe facility:

- A screening process should be established for bathers at the entrance to the facility. This may include temperature checks (those with a temperature at or above 37.8 C or 100 F should not be admitted) and the completion of a COVID-19 assessment questionnaire that includes assessment for:
 - Recent travel.
 - Exposure to a confirmed or probable case of COVID-19.
 - New or worsening respiratory symptoms, such as a cough, and fever.
 - In addition, vulnerable populations or those with underlying medical conditions should be encouraged not to attend.

Staff should be trained and knowledgeable of steps to take with the result of bather's assessment.

- Distance markings on the floor for queues with a minimum distance of 2 m between any individual; in the case of large crowds, queues can be guided through additional markings or barriers.
- Provide reception counters with protection made of plexiglass or safety glass.
- Set up possibilities for cashless and contactless payments.
- Where possible introduce a web-based reservation system to limit the number of users at any given time.

- Assign staff to monitor the entrances and exits, i.e., the number of bathers entering and exiting (checkout system, possibly staff).
- Stagger the number of persons entering/exiting the facility to prevent crowding.
- The swimming pool admission standard should be used, and bather identification system continued. If wrist banding is used as an identification system, then bathers should be permitted to affix the band.
- Post signage at the entranceway and at the front of the building indicating that if they meet certain criteria (e.g., respiratory symptoms, recent travel) that they are not permitted inside.
- Post on the corporation website admission policies with regard to COVID-19 admission.

Changing areas / washrooms

In changing and washroom areas, physical distancing between bathers should be supported by a variety of measures including:

- Decommission selected lockers to ensure 2 m distancing and enhance cleaning and disinfection.
- Limit changeroom occupancy/stagger changeroom access.

Signage (see below) in strategic locations such as: on the entrance doors, walls inside the rooms and on the floor can reinforce this physical distancing requirement.

Staff should also reinforce hand hygiene and respiratory etiquette among bathers. Bathers should also be motivated in their hand hygiene by setting up disinfectant stands or encouraged to use soap and water. Signage in the washroom areas (see sample signage) can also reinforce this message.

To reduce the amount of time in changerooms, bathers should be encouraged to come to the pool in the swimming attire. Proper shower etiquette should be enforced.

Shower areas

Operators can install mobile splash protection walls or decommission every other shower where showers are set up inside the physical distancing limit. In shower areas where there are individual shower stalls, every other shower can be taken out of operation to ensure proper physical distancing. Touchless soap dispensers should be provided to bathers so that they can take a cleansing shower.

Swimming pool

The following measures are recommended in the pool and pool deck areas:

- Seating in the swimming pool should be removed or reduced to provide for 2 m physical distancing. For continuous seating areas such as benches, distance markings should be made if necessary.

- Place distance markings on the ground in front of attractions (slides, diving boards, etc.). Where this is not possible or lineups for these devices interfere with bather flow on deck, the equipment should be closed.
- Small pools with limited space may need to be taken out of operation if there is insufficient space to guarantee physical distancing (e.g., spas, wading pools, therapy pools).
- Adjustments to bather loads will be necessary to ensure bathers have adequate physical distancing. Initially, legislated bather loads should be reduced by approximately 75%. Following an assessment of this adjustment, loading can be increased to a maximum where physical distancing can be maintained. Lifeguards should be trained to manage patron physical distancing on deck and in the pool although their primary duty will be to provide safety supervision.
- Lane lines use during recreational swims should be minimized to enable bathers to maintain physical distancing. Only drop-off buoy lines should be maintained during open recreational swims. Lane lines may be used during lesson periods and lane swims to reinforce physical distancing.
- Any equipment provided to the public should be sanitized following each use. Operators may restrict equipment usage if disinfection is not feasible or encourage bathers to bring their own equipment (kickboards, water bottles, lifejackets, etc.) to the swimming pool.

Sauna area

In saunas, there are some precautions to take before opening:

- Place distance markings in sauna rooms. If these rooms are too small, then they should not be opened.
- Reduce the number of loungers and seating options and keep a clear 2 m distance.

Office areas

Physical distancing should always be maintained by staff. Staff will set the example for the public who attend swimming pools. Staff areas (lunchrooms) are often quite small and so alternative staff areas may be required. Staff should be discouraged from bringing and storing personal equipment and gear to the facility.

Management should consider staggering staff shifts and programs to allow for physical distancing measures or dividing staff into two groups that have no contact with each other. Regardless of the daily requirement of social distancing, these two groups could be strictly separated so that, in the event of one group being quarantined, restricted operation would then be possible with the other group.

Staff should be encouraged to:

- Eat lunch individually and not in groups.
- Wash their hands thoroughly before eating and after using communal facilities.
- Not leave dishes behind in the kitchen.
- Not share cups, cutlery, etc.
- Disinfect table and counter after each use.

Viewing gallery

The viewing area should be closed if the area is too small or congestion may be present when the public enter or exit. Alternatively, the number of attendees in the gallery can be restricted through signage or staff monitoring the use of the area.

Equipment room

Access to the equipment room should be restricted at this time. If equipment such as lifejackets, kickboards, etc. are shared with bathers then steps should be taken to clean and disinfect them before and after each use. Bathers can also be encouraged to provide their own equipment for their use only.

Ventilation

Operators should ensure that indoor pool ventilation systems are operating properly. Operators should increase the introduction and circulation of outdoor air as much as possible by opening windows and doors, using fans, or other methods. Care must be taken that opening of windows and doors does not pose a safety risk to staff, patrons, or swimmers.

Activity Assessment

Swimming pools in general provide recreational swimming, lessons, and various rental periods. Initially it may be necessary during any one of the above activities to reduce the number of visitors present at one time to ensure that bathers have a reasonable chance of complying with the required physical distancing rules. This can be achieved through supervision and control at the reception area, reservation or class registration system or measures in the changing area.

Management should review planned activities for the swimming pool and anticipated numbers attending, their expected user area within the pool, resources required such as PFDs, and staff requirements. A daily schedule should be mapped out indicating pool use, bather flow, equipment use, etc. Parameters for the safe operation of these activities should be established and then monitored and adjusted if necessary. Cleaning protocols should be created that will ensure adequate cleaning of these areas.

It is likely that the first activities permitted in public pools will be those that can easily accommodate physical distancing such as swim clubs, lane swims, staff training sessions, etc. As COVID-19 measures ease, aquatic lessons for participants that do not require in-water support by instructors (Lifesaving Society Swimmer Level 3 and up, Bronze

programs, etc.) may be introduced. Finally, lesson programs with full instructor in-water support and open recreational swims may be permitted as pool operation returns to normal. Management should consider this phased-in approach when planning the reopening of public pools.

Sample Signage



Programming Aquatic Facilities

For all aquatic facilities, bather loads should be reduced to allow appropriate physical distancing. The operator needs to take in consideration the activities held and amenities available within their facility. Bather loads may increase in time based on provincial/territorial health authority recommendations.

General

1. For programmed activities, adopt and follow all other guidelines as described in this document.
2. People at higher risk of COVID-19 should not participate in programmed activities until approved.
3. Participants should not share water bottles, towels, goggles or any other equipment. Water bottles should be filled at home.
4. Users should not spit, cough, urinate or blow their nose in the water.
5. Patrons in need of assistance due to physical limitations should receive help from a family member.

Patron Equipment

1. Since there is currently no evidence that COVID-19 survives in treated pool water, there are no special disinfection procedures to put in place for all equipment that are regularly in contact with chlorinated water (railings, slides, etc.).
2. Signage should inform bathers to not share water bottles, towels, goggles, or any other equipment other than with family members.
3. The use of goggles should be encouraged to avoid mucus contamination.
4. Snorkels should be prohibited because they encourage spitting of the mouth's contents.
5. Following the first phase of reopening, only essential equipment should be available to patrons (e.g., PFDs).
6. All shared equipment (such as PFDs) must be disinfected between users.

Recreational Swimming

1. The owner and operator should prepare a plan for recreational swimming (see Appendix H: *Recreational Swimming / Day Camps and Groups Organization Model*).
2. For all aquatic facilities, bather loads should be reduced to allow physical distancing. Operators need to consider activities held and amenities available. Bather loads may increase in time depending on provincial/territorial health authority recommendations.

For example, the total number of patrons on deck and in the water may not exceed the number obtained by allowing 7 m² of water surface per person, therefore a 25 m pool with 6 lanes 2.5 m wide each has a total of 375 m² (25 x 6 x 2.5). Bather admission should not exceed approximately 53 bathers (375 ÷ 7).

Lane / Lap Swimming

1. The owner and operator should prepare a plan for lane/lap swimming.
2. To maintain physical distancing of 2 m, swimmers should swim in the middle of the lane only and return by the adjacent lane (e.g., swimming towards the deep area in lane #1 and coming back to the shallow area in lane #2). See Appendix I: *Lanes / Lap Swimming Organization Model*. Swimmers of the same family or household may swim together in one lane.

Day Camps and Groups

1. The owner and operator should prepare a plan for day camps and groups (Appendix H: *Recreational Swimming / Day Camps and Groups Organization Model*).
2. Inform day camp and group supervisors of the facility's established physical distancing measures.
3. Inform the camp and group leader of their shared responsibility to maintain the facility's established physical distancing measures.
4. Participants should not share water bottles, towels, goggles or any other equipment with others.
5. When transporting participants to the aquatic facility, it is recommended to reduce the bus occupancy rate according to local guidelines.
6. Reduce the number of participants allowed in programs to adjust to the facility's revised bather load and the number of program leaders available for participant supervision.
7. Day camp and group supervisors should organize activities to encourage physical distancing between participants rather than free swimming.
8. All other guidelines and admission requirements regarding day camps and groups must be followed.

Organized Activities

For all aquatic facilities, bather loads should be reduced to allow physical distancing. The operator needs to consider the activities held and amenities available in each facility. Bather loads may increase in time based on provincial/territorial health authority recommendations.

General

For organized activities, adopt and follow all other recommendations as described in this document:

1. Users should not spit, cough, urinate, or blow their nose in the water.
2. Reduce group ratios to maintain distancing measures.
3. Reducing duration of lessons may allow operator to offer more lessons.
4. Aquatic instructors should explain safety guidelines to all participants before starting a class or a training session.
5. Aquatic instructors should not be in the water except for demonstrations.
6. Disinfection of equipment is required after activities. If possible, avoid using equipment during activities.
7. The following individuals should not participate in organized activities:
 - a. People 65 years and older.
 - b. People who live in a nursing home or long-term care facility.
 - c. People of all ages with underlying medical conditions, particularly if these conditions are not well controlled.
8. Instructors should encourage each swimmer to bring their own equipment. Participants should not share water bottles, towels, goggles or any other equipment with others.
9. Patrons in need of assistance due to physical limitations should receive help from a family member.

Swimming lessons

The owner and operator should prepare a plan for swimming lessons. This plan should take into account the following:

1. Maintaining physical distancing with swimming lesson participants can be challenging, especially with younger participants.
2. Offer swimming lessons while there is no ongoing community spread of COVID-19 in your region in accordance with provincial/territorial health authority recommendations.
3. Prioritize swimming lessons according to group levels where physical distancing measures can be easily implemented (younger participants usually need more physical manipulation and proximity).
4. Swimming lessons could be given in groups similar to infant lessons so that each participant is accompanied by a parent responsible for managing and handling their child.

5. The owner and operator should prepare a plan for training lifeguards (see Appendix J: *Lifeguard Training Model*).
6. See current/amended program standards from the respective swimming organizations.

Aquatic fitness classes

1. Maintaining physical distancing with aquatic fitness class participants can be challenging.
2. Offer aquatic fitness classes only while there is no ongoing community spread of COVID-19 in your region in accordance with provincial/territorial health authority recommendations.
3. Prioritize aquatic fitness classes to group levels where physical distancing measures can be easily implemented and in the early stages, low risk individual groups participate.
4. See current/amended program standards from the respective aquatic fitness organizations.

Aquatic sports

1. Offer organized aquatic sports only while there is no ongoing community spread of COVID-19 in your region in accordance with provincial/territorial health authority recommendations.
2. Offer organized aquatic events (such as competitions) only after provincial/territorial health authority approval has been granted.
3. Younger athletes that need physical manipulation and close proximity to others should not resume training before provincial/territorial health authority approval has been granted (corresponding with the start of swimming lessons and following the same recommendations).
4. Masters athletes or athletes at high-risk for severe illness from COVID-19 (see admission guidelines) should not resume training before provincial/territorial health authority approval has been granted.
5. Head trainers must present a plan to the operator for the organization of training in order to respect the basic principles of COVID-19 precautions. The plan should establish guidelines for the spatial, temporal and physical organization of a swimming pool, making it possible to comply with the rules of physical distancing while presenting an overall vision of the development and movement of individuals.
6. Follow respective sport federation or organization recommendations.

7. All aquatic sports:
 - a. Organize local training only (athletes should not come from another region/province to practice their sport).
 - b. Parents should not attend training sessions. If possible, the athlete should go to the aquatic facility on their own or the parent should stay in their vehicle.
 - c. Put measures in place that prevent the instructor or coach from being alone with an athlete.
 - d. Keep the same group of athletes for each training session.
 - e. Maintain physical distancing of at least 2 m between each athlete.
 - f. Encourage solo skill training rather than group events.
 - g. Do not hold dry land training by the pool.
 - h. Athletes should not leave equipment or sport bags at the facility.
 - i. Athletes are encouraged to act responsibly and promote appropriate behaviour on social media with their peers.
8. Competitive swimming:
 - a. Goggles are mandatory.
 - b. Lanes/lap swimming recommendations must be followed.
 - c. Keep the same group of swimmers in a lane for each training session.
 - d. Swimmers of the same family or household may swim in the same lane.
9. Diving:
 - a. Keep the same group of divers for each training session.
10. Artistic swimming:
 - a. Goggles are mandatory.
 - b. Practice solos (no group figures).
11. Water polo:
 - a. Goggles are mandatory.
12. Triathlon training:
 - a. See competitive swimming recommendations.

Staff Training Plan

After a prolonged absence from work, aquatic staff must be ready to provide effective safety supervision to the public participating in aquatic activities with a minimum of risk of transmission of COVID-19.

Employers are responsible for the health and safety of their staff and therefore new protocols should be in place to minimize the risk of COVID-19 transmission. Aquatic staff should be trained and competent in the new protocols prior to reopening aquatic facilities.

The outbreak of COVID-19 has generated questions and concerns about potential exposure upon reopening aquatic facilities. This Information is intended to provide guidance to owners and operators of aquatic facilities regarding staff training for the progressive reopening of aquatic facilities during the COVID-19 pandemic.

The objectives of the recommendations for staff training as part of a progressive reopening of aquatic facilities are:

1. To minimize the risk of COVID-19 transmission at public aquatic facilities between aquatic staff and the public.
2. To ensure that lifeguards and all aquatic staff who provide safety supervision can provide effective safety supervision during a progressive approach to returning aquatic facilities to a complete operating schedule.

Owners and operators of aquatic facilities should consider the following when developing their plan:

1. Put strategies in place to reduce the risk of COVID-19 transmission. Training must be provided in COVID-19 specific protocols for all janitorial, clerical and lifeguard staff.
2. Employers should consider the emotional and mental stress that staff may be experiencing and ensure that training provides the opportunity for staff to ask questions and express concerns. This will assist in reassuring staff that they are returning to a work environment with layers of safety in place for both staff and participants.
3. Document all training. Records must have the date, name and signature of all staff members who receive training.
4. Use a blended learning approach to train returning staff. Prior to in-person training, use online learning for COVID-19 specific protocols to manage the facility and operations.¹
5. Develop training plans to reactivate returning staff that will help ensure aquatic safety supervision staff are able to successfully perform rescues when called on to do so after a prolonged absence from work.

¹ Aquatic Facility Information Bulletin – COVID-19 Facility Operations: Recommendations for Progressive Reopening

6. Although the Lifesaving Society has granted an extension on vocational awards of 90 days once the government has opened aquatic facilities, a recertification schedule for aquatic staff whose certifications have expired or are close to expiring should be developed.
7. During training, staff should be supplied with their own PPE and personal first aid equipment (e.g., pocket mask, rescue tubes, hand sanitizer) as well as follow hand hygiene recommendations, practice physical distancing and wear protective facemasks/face-covering.
8. During the initial onboarding of returning staff a Rescue Ready Assessment should be completed by supervision staff. See Appendix K: *Rescue Ready Assessment Recommendations*.
9. Owners and operators of aquatic facilities should provide staff training prior to opening aquatic facilities. The training, at minimum, should include:
 - Aquatic Policy and Procedures Update
 - First Aid and Resuscitation Protocols Update
 - PPE (Personal Protection Equipment) Update

Aquatic Policy and Procedures Update

Facility operations

Owner/operator should review their facility's operating procedures and guidelines to ensure they address the following:

- Prior to entering the facility, all staff and the public should be screened for COVID-19 (temperature above 37.8 C or 100 F and COVID assessment available from your local public health unit) and informed of responsibilities regarding physical distancing for all activities and facility amenities.
- Inform and educate the public concerning one-way traffic measures around the facility such as, entering and exiting showers, changerooms or toilet facilities.
- Inform and educate the public concerning measures established to ensure physical distancing for recreation equipment such as rope swings or slides.
- Inform and educate program participants about not sharing personal equipment such as water bottles, towels, goggles, etc.

In addition, owner/operators should take steps to update staff protocols regarding:

- Rescues to ensure lifeguard interventions minimize the possibility of COVID-19 transmission. See Appendix L: *Guidelines for In-water Rescue*.
- Additional safety education protocols and changes made to facility rules. See Appendix M: *Protocols for Safety Education and Rule Enforcement*.

- Owner/operators may use a blended learning approach to train your staff. Prior to in-person training on-line learning for COVID-19 specific protocols developed to manage your facility and its operations can be used.
- Practice physical distancing while providing safety education and rule enforcement.
- Remind staff of the need for tact when providing information to and enforcing rules with patrons who may not be willing to accept the new protocols. Provide staff with guidance on policies concerning customer service and safely managing difficult patrons.

After updating relevant procedures and guidelines, staff should receive training. This training should focus on the following:

- Facility requirements for physical distancing and disinfection protocols.
- In-water rescues and lifeguard Interventions protocols with respect to transmission mitigation.
- First aid and resuscitation protocols with respect to transmission mitigation.
- Operators should provide at least the following PPE equipment for staff: BVM or pocket mask (preferably with HEPA filters), protective eyewear, mask, gloves, and hand sanitizer.
- Staff on deck should wear at least a non-medical mask and gloves. During an in-water emergency, masks should be removed before entering the swimming pool.
- Staff on lifeguard towers may wear gloves and a non-medical mask and have other PPE equipment readily available.
- No person-to-person contact should occur during first aid or resuscitation skill assessments or practice situations. Manikins should be used for in water and CPR skill assessment.
- In-water rescue-breathing or victim assessments will not be used at this time.
- Disinfect all training equipment before and after training.
- Wherever possible, provide surveillance and scanning from an elevated platform to promote physical distancing. After each rotation, lifeguards should disinfect the platform's railings and common surfaces. These supplies may be kept at each lifeguard station.
- Lifeguards should be provided with a rescue aid for the duration of their shift.

Emergency procedures

Owners/operators may use a blended learning approach to train returning staff to limit in-person training to the extent possible. Prior to in-person training, the use of online learning for COVID-19 specific protocols can be developed to manage their facilities and their operations. During in-water sessions, staff should demonstrate an understanding of in-water emergency response protocols and an ability to perform these to National Lifeguard standards. Principles of these protocols include:

- At all times, rescuers should use the lowest risk rescue possible given the situation. Rescues that allow for a quick response and recovery while maintaining physical distancing should be encouraged.
- For all rescues minimize the number of rescuers who have direct contact with victims.
- For in-water rescuers, whenever possible approach the victim to avoid face-to-face proximity.
- Staff providing first aid should be equipped with the appropriate PPE required to safely manage victim care and provide the required follow-up (at least a BVM or pocket mask, eye protection, gloves, surgical mask, and hand sanitizer).
- The designate permits the in-water rescuer(s) time to dry off and don PPE before continuing victim care.
- At each focal point (e.g., first aid station) provide a dry container including hand sanitizer and PPE for at least two rescuers.
- Following rescues, all rescuers should practice hand hygiene and if appropriate shower with soap, change their clothes, bag clothes worn during the rescue (to be washed).
- Disinfect or replace all equipment used by staff after care has been provided.

Safety supervision

Owner/operators may need to adjust their safety supervision plans for their facility. Additional on-deck staff may be required to provide screening of bathers, touch point cleaning, additional on-deck supervisor, and overall safety supervision of activities in the swimming pool.

Whenever possible lifeguard towers should be utilized for the safety supervision of recreational swimming. They offer a good view of the swimming pool and ensure physical distancing.

Supervisory staff should confirm that any adjustments to lifeguard positioning maintains swimming pool safety supervision standards.

First Aid and Resuscitation

First aid

The following guidelines are COVID-19 adaptations of assessment and treatment actions that can be performed in conjunction with any specific intervention required by the victim's condition. See Appendix N: *First Aid and Resuscitation Guidelines for COVID-19*.

Scene and risk assessment

- Ensure scene is safe
- Minimize the number of rescuer contacts with victim (where possible maintain physical distancing of at least 2 m)
- Don appropriate PPE (protect self/partner/other responders)
- Manage/mitigate any hazards/risks
- Victim health history
- Mechanism of injury
- Continuous and dynamic scene assessment

Primary assessment

- PPE
- ABCs
- EMS
- Treat for shock
- Preparing for transport

Secondary assessment

Promote self-treatment or treatment by a family member

- Vital signs
- Head-to-toe exam
- Treatment

Respiratory hygiene measures for victims

- When victim is conscious, have victim turn face away from rescuer.
- Ensure that all victims cover their nose and mouth with a tissue or elbow when coughing or sneezing.

First aid for children and minors

- Wherever possible, initiate first aid for children and minors by asking parents or caregivers to provide aid.

Resuscitation

The need for resuscitation during a rescue in a public swimming pool is rare. Nevertheless, the outcome of such an incident depends on two highly variable factors: how quickly the person is removed from the water, and how quickly effective resuscitation is performed. Lifeguards have an obligation to help those in need as long as it does not risk harm to themselves. The following should be considered by staff:

- Bathers have undergone an active screening prior to entry.
- Individuals with moderate or severe infections are unlikely to be participating in water-related activities.
- Proper personal equipment, hand hygiene and screening at sites can help decrease the risk to rescuers.
- The provision and use of proper PPE, hand hygiene, and modified rescue/ first aid protocols can help decrease the risk to rescuers.
- Rescuers should always assess the risk of providing care. This includes an assessment of their own health status – staff with underlying medical conditions are more likely to experience complications from COVID-19, and during times with high infection rates should consider doing other duties that do not involve direct public interaction.

General recommendations

- Rescuers should don gloves for all first aid interventions or during (or at the latest, immediately after) removing a victim from the water. It would be reasonable for rescuers to wear face masks with eye protection when performing first aid if available.
- If using Bag Valve Mask (BVM) or face masks, a viral filter can be used to decrease possible exposure.
- Rescuers should minimize the number of people in direct contact with the victim. Follow up procedures should be limited, where possible, to one rescuer. In addition, a minimum 2 m radius should be kept clear around the rescuer and victim as an added physical distancing precaution, and enhanced access for EMS should they be required.
- Rescuers should properly discard of all PPE after the rescue and wash their hands before continuing with their duties.

Resuscitation (CPR) for a drowning victim

Rescuers should follow the current established protocols for responding to an unconscious, non-breathing drowning victim with the following exceptions:

- In-water ventilations should not be performed.
- Mouth-to-mouth ventilations should not be performed.

- CPR with ventilations via a BVM or face mask is the preferred technique for all drowning resuscitations. To minimize exposure, the order of preferred ventilation technique is:
 - 2-rescuer Bag-valve-mask (BVM) technique (rescuer holding the mask maintains a tight seal during ventilations and compressions). HEPA filters should reduce the risk of contamination.
 - If no BVM is available, or the rescuer is not trained in the proper use of a BVM, rescuers may consider mouth-to-mask ventilations, however, due to the close proximity to victim's airway there is an increased risk of pathogen transmission. The rescuer giving the breaths, should maintain a tight seal during ventilations and compressions. One-way valves with HEPA filters should reduce the risk of contamination.
 - If there is only one rescuer responding, the pocket mask should have a head strap and be tightly placed on the victim's face to create a seal.
 - If family members or close contacts are nearby and trained, it is reasonable to see if they would be willing to provide the ventilations.
 - If there is insufficient PPE, rescuers should perform compression-only CPR.

CPR resuscitation for a non-drowning victim

- If the cause of the victim's cardiac arrest is not drowning, it is reasonable for the rescuer to perform compression-only CPR for adults with early AED use where possible. During compression-only CPR, rescuers may use a face shield or another protective covering over the victim's mouth/nose to decrease the possibility contaminating rescue environment.
- If the victim is a child, CPR with ventilations is preferred for all cardiac arrests and should use the same precautions as for a drowning victim (above).

Other first aid interventions

- Rescuers should adhere to general precautions such as gloves, face mask, eye protection and good hand washing for all first aid interventions.
- If victims can tolerate a mask, they should be encouraged to wear a mask. Masks that cover the mouth and nose of a victim may create significant anxiety which the rescuer should be aware of and attempt to manage when on scene. Operators should stock additional masks for this purpose.

Personal Protective Equipment (PPE) for Aquatic Staff

Rescues and lifeguard interventions may provide a source of COVID-19 transmission. Infection prevention and control (IPC) during rescues is essential to prevent or limit transmission. To limit this transmission, staff should be directed to follow these guidelines:

- Instructors and lifeguards on deck or in lifeguard tower should wear at least a non-medical mask
- Lifeguards performing first aid are required to wear at least a surgical mask, eyewear and gloves while optional wear includes a gown.
- Staff should be trained in the appropriate use and fitting of PPE. They should be equipped with the appropriate PPE to safely manage victim-care and provide the required follow-up.
- In-water rescuers should be given time to dry off and don PPE before assisting with victim care. In-water rescuers should not wear masks in the water but may wear gloves.
- Lifeguards stationed in lifeguard towers or on deck should wear non-medical masks. Masks should be removed when initiating any in water rescues. Appropriate masks should be reapplied on deck when providing direct first aid care for the victim.
- Staff responding to first aid incidents must don appropriate PPE depending on the nature of the incident and care being provided (see Appendices O and P).
- Gloves may be worn by staff stationed on deck and in lifeguard towers.

Aquatic Facility Maintenance, Cleaning and Decontamination

Surfaces frequently touched with hands are most likely to be contaminated with COVID-19. These include doorknobs, handrails, elevator buttons, light switches, cabinet handles, faucet handles, tables, countertops, and electronics. The virus responsible for COVID-19 can survive for a certain time (a few hours to several days) on different surfaces but is easily eliminated by most regular cleaners and disinfectants.

It is important to ensure that the product has sufficient contact time with the surface to be disinfected. This contact time is usually specified by the product manufacturer.

Background / Rationale

COVID-19 is a serious health threat, and the situation is evolving daily. The risk will vary between and within communities, but given the increasing number of cases in Canada, the risk to Canadians is considered high. This does not mean that all Canadians will get the disease, it means that there is already a significant impact on our health care system.

We will continue to reassess the public health risk based on the best available evidence as the situation evolves.

Implementation

The Government of Canada and the United States Centers for Disease Control have created several online resources that will guide owner/operators in the cleaning and disinfection of aquatic facilities. Owner/operators should check these sites for the most current recommendations regarding cleaning and disinfecting of recreation facilities. The guidance provided in these resources on the cleaning and disinfection of public areas is aimed at limiting the survival of COVID 19 disease. These recommendations will be updated if additional information becomes available.

These guidelines focus on community, non-healthcare facilities such as schools, institutions of higher education, recreation centres, offices, daycare centers, businesses, and community centers that do not house persons overnight.

Cleaning and Disinfecting and Personal Protection

The first step in addressing this disease is the personal protection of staff responsible for the cleaning of aquatic facilities. These individuals must be provided with adequate Personal Protective Equipment (PPE). In addition, they must practice personal hand hygiene.

The risk of exposure to cleaning staff is inherently low. Even though the risk is low, cleaning staff should wear disposable gloves and gowns for all tasks in the cleaning process, including handling trash.

Employers should develop policies for worker protection and provide training to all cleaning staff on site prior to providing cleaning tasks. Training should include when to use PPE, what PPE is necessary, how to properly don (put on), use, and doff (take off) PPE, and how to properly dispose of PPE.

Gloves and gowns should be compatible with the disinfectant products being used.

Additional PPE such as masks, goggles or face shields may be required based on the cleaning/disinfectant products being used and whether there is a risk of splash. Gloves and gowns should be removed carefully to avoid contamination of the wearer and the surrounding area. Be sure to wash hands after removing gloves.

If gowns are not available, coveralls, aprons or work uniforms can be worn during cleaning and disinfecting. Reusable (washable) clothing should be laundered after each use. Hands should be washed after handling dirty laundry. If soap and water are not available and hands are not visibly dirty, an alcohol-based hand sanitizer that contains at least 60% alcohol may be used.

Follow normal preventive actions and avoiding touching eyes, nose, or mouth with unwashed hands.

Additional key times to clean hands include:

- After blowing one's nose, coughing, or sneezing.
- After using the restroom.
- Before eating or preparing food.
- After contact with animals or pets.
- Before and after providing routine care for another person who needs assistance such as a child.

The use of a spray should be avoided if possible, in order to limit the formation of aerosol of disinfectant product which can be inhaled and thus irritate the respiratory tract. If such a spray bottle is used, adjust it so that you have a large spray.

Where to Clean

Surfaces frequently touched with hands are most likely to be contaminated. These include doorknobs, handrails, elevator buttons, light switches, cabinet handles, faucet handles, tables, countertops and electronics. These areas are therefore high priority cleaning areas within the facility. It is not yet known how long the virus causing COVID-19 lives on surfaces, however, early evidence suggests it can live on objects and surfaces from a few hours to days.

A detailed cleaning schedule should be created which would include where, what and frequency of cleaning. Log sheets should be posted and completed each time cleaning occurs.

What to Clean With

When cleaning public spaces, choose products that clean and disinfect all at once (e.g., premixed store-bought disinfectant cleaning solutions and/or wipes when available). Cleaning products remove germs, dirt, and impurities from surfaces by using soap (or detergent) and water. Cleaning does not necessarily kill germs, but by removing them, it lowers their numbers and the risk of spreading infection. Disinfecting products kill germs on surfaces using chemicals.

Use only approved hard-surface cleaner disinfectants that have a Drug Identification Number (DIN). Drug Identification Number (DIN) is a computer-generated eight-digit number assigned by Health Canada to a drug product prior to being marketed in Canada. It uniquely identifies all drug products sold in a dosage form in Canada and is located on the label of prescription and over-the-counter drug products that have been evaluated and authorized for sale in Canada. Employers must ensure workers are trained on the hazards of the cleaning chemicals used in the workplace.

A DIN uniquely identifies the following product characteristics: manufacturer; product name; active ingredient(s); strength(s) of active ingredient(s); pharmaceutical form; route of administration.

Create a Cleaning Procedure

Operators of aquatic facilities should develop or review protocols and procedures for cleaning their facility. This will help determine where improvements or additional cleaning may be needed. Manufacturer's instructions for safe use of cleaning and disinfection products (e.g., wear gloves, use in well-ventilated area, allow enough contact time for disinfectant to kill germs based on the product being used) should be reviewed and appropriate products should be selected for use by staff. Employers should work with their local health units to ensure appropriate local protocols and guidelines, such as updated/additional guidance for cleaning and disinfection, are followed.

When setting up procedures staff should:

- Use damp cleaning methods such as damp clean cloths, and/or a wet mop. Do not dust or sweep which can distribute virus droplets into the air.
- Place contaminated disposable cleaning items (e.g., mop heads, cloths) in a lined garbage bin before disposing of them with regular waste. Reusable cleaning items can be washed using regular laundry soap and hot water (60-90°C). Clean and disinfect surfaces that people touch often.

In addition to routine cleaning, surfaces that are frequently touched with hands should be cleaned and disinfected more often, as well as when visibly dirty. Shared spaces such as kitchens and bathrooms should also be cleaned more often.

In public places, where people touch surfaces, cleaning should be done at least daily and if possible, even more frequently (every 2 or 4 hours) (Finnish Institute of Occupational Health, 2020).

Specific Equipment

Cleaning and disinfect rescue equipment (rescue tube, rescue can, rescue pole, ring buoys)

Clean and disinfect rescue equipment at the end of the day or during an exchange between lifeguards after cleaning, leave the rescue equipment immersed in the water for 15 minutes during disinfection.

Cleaning and disinfect training accessories and recreational toys and games

Clean and disinfect toys, games and training accessories after use by a bather or daily after cleaning, leave the equipment immersed in the water for 15 minutes during disinfection and then store to dry overnight. You may not be able to disinfect some larger toys (inflatables) and in these cases they should not be used.

Cleaning and disinfect PFD

Clean and disinfect training accessories after use by a bather or daily after cleaning, leave PFD immersed in the water for 15 minutes during disinfection and store to dry overnight.

Cleaning and disinfect deck equipment

Clean and disinfect all surfaces of deck equipment that are frequently touched with hands at least daily.

Cleaning toilets

Toilets require careful cleaning instructions. Typically, carefully planned aseptic work instructions do not need to be changed according to these instructions. However, it is essential to note that viruses spread through feces and that cleaning a toilet bowl may create small droplets which could pose a risk to staff.

Cleaning instructions, which should be followed, are listed at: <https://www.ttl.fi/en/cleaning-guidelines-for-the-prevention-of-covid-19-infections%E2%80%AF/>

Safe Water Management of Aquatic Facilities

The management of safe water is imperative during viral outbreaks like COVID 19. We know through the work of the United States Centres for Disease Control and Prevention that:

“There is no evidence that COVID-19 can be spread to humans through the water. Proper operation, maintenance, and disinfection (with chlorine or bromine) of pools should kill COVID-19.”

To ensure the disease is killed in swimming pool water aquatic facility operators should ensure water testing takes place as required by regulation or more frequently if required by protocols established by the facility.

Owner/operators should ensure their swimming pool water testing meets or exceeds the requirement of the Regulation or Guidelines.

Chlorine / bromine

FAC Levels

Free Available Chlorine levels should be carefully maintained at levels recommended by regulation or provincial guidelines. Operators may choose to enhance disinfection levels by raising levels above minimum levels until the COVID-19 virus is no longer present in the community.

	Indoor/Outdoor Pool	Outdoor Pool	Spa or Hot Tub
Chlorine	1.0–3.0 mg/l	3.0–5.0 mg/l	5.0–8.0 mg/l
Bromine	2.5–4.0 mg/l	3.0–5.0 mg/l	5.0–6.0 mg/l

Other tests

The control of other variables in the swimming pool water will ensure disinfection is effective. Careful monitoring of pH, Total Alkalinity, Calcium Hardness, Cyanuric Acid levels will enhance water safety.

The Lifesaving Society recommends the following minimum standards:

pH

Recommendation: pH 7.4–7.6

Total Alkalinity

Recommendation: Total Alkalinity 90–120 mg/l

Calcium Hardness

Recommendation: Calcium Hardness 200–400 ppm

Cyanuric Acid

Recommendation: Cyanuric Acid 25–40 ppm

Cyanuric Acid is used in Outdoor pools only. It extends the life of chlorine and prevents burn off from the effects of the sun.

Water Testing Requirements

	Automatic Devices	Manual Testing
Chlorine: Residual & Total	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none">• 30 minutes before pool opens• Every 2 hr. the pool is open to bathers
Bromine: Residual & Total	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none">• 30 minutes before pool opens• Every 2 hr. the pool is open to bathers
Alkalinity	One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none">• 30 minutes before pool opens• Every 2 hr. the pool is open to bathers
Cyanuric Acid	N/A	<ul style="list-style-type: none">• Once per week minimum
Water Clarity	Black disc visible from 9 m One manual reading per day and checked every 4 hr.	<ul style="list-style-type: none">• 30 minutes before pool opens• Every 2 hr. the pool is open to bathers

Helpful Links

<https://www.canada.ca/en/public-health/services/publications/diseases-conditions/cleaning-disinfecting-public-spaces.html>

<https://www.publichealthontario.ca/-/media/documents/ncov/factsheet-covid-19-environmental-cleaning.pdf?la=fr>

<https://www.inspq.qc.ca/covid-19/environnement/nettoyage-surfaces>

<https://www.ttl.fi/en/cleaning-guidelines-for-the-prevention-of-covid-19-infections%E2%80%AF/>

<https://www.cdc.gov/healthywater/swimming/pdf/fecal-incident-response-guidelines.pdf>

Community Waterfront Safety

In Canada, drowning is the number one cause of unintentional injury deaths among children 1 to 4 years of age, and the second leading cause of preventable death for children under 10 years. With some 500 fatalities annually, drowning is the third leading cause of unintentional death among Canadians under 60 years of age (surpassed only by motor vehicle collisions and poisoning).

This summer as we slowly reopen our aquatic facilities it is likely that many bathers will also utilize public waterfronts for recreational swimming. To ensure their safety in these unsupervised sites, owners of these waterfronts should take preventive measures before drownings occur.

Swimming Area Assessments

To assess the activity levels and risks associated with waterfront use, owner/operators should conduct swimming area assessments. This should be done by initially identifying known public swimming areas in the community. Areas where swimming is known to occur and that “invite” the public to use the waterfront (by providing and maintaining beaches, parking lots, pathways, etc.) should be logged.

A site visit may be necessary to examine the waterfront areas including bather use, access points, water depths, hazards, etc. Those areas should be categorized into either dangerous swimming areas or safe swimming areas.

Dangerous swimming areas

For those public waterfront areas where swimming is known or likely to occur and it is unsafe for swimming due to dangerous drop-offs, currents, underwater hazards or other conditions that pose a high risk to bathers, signs should be posted “No swimming” in these areas.

Safe swimming areas

For all areas where swimming is known to occur and it is safe for swimming, every owner/operator has a responsibility to maintain the swimming area in a safe condition.

Generally, owners/operators should ensure that at least the following steps are taken:

- Swimming areas and beaches intended for use by patrons are clearly designated through signs, buoy lines, buoy/swim markers or a combination of these.
- Signs should be posted that include:
 - Where no lifeguard supervision or patrol is provided, or when lifeguards or patrol are off duty, the owner/operator shall ensure that signs indicating safety supervision status. These signs should be posted at entrances and exits, or where there are not specific entrances and exits, at reasonable intervals along/near the swimming area indicating: “Swimming area is not supervised; children require direct supervision by parents or adults.”
 - Location of a telephone for emergency use (or other communication device), and nearest first aid station.
- The following rescue equipment is provided in places conveniently located for emergency use at waterfronts where the public is invited to swim, but where the swimming area is not supervised, or when lifeguards have gone off duty:
 - A reaching pole at least 3 m in length
 - A buoyant throwing aid attached to a 6 mm line at least 8 m long

When reopening supervised waterfronts in COVID times, operators should consider the following:

Limit use: Passive uses should be avoided as they tend to gather crowds. Active use, such as exercise, is easy to differentiate from passive use. Prohibiting items that lend themselves to lounging, including chairs and blankets, can deter non-permitted usage.

Limit access points: Smaller numbers of access points allow for resources to be concentrated where they are most needed. Limited access points will allow visitors to be more easily monitored to ensure compliance and provides centralized places for education and signage. The reduction of parking will also limit access.

Open on a non-busy day: The first day(s) of opening will likely see the largest number of visitors, so avoiding typically popular days like weekends will lessen the need for resources to provide education and ensure compliance. If changes or additions to the plan are necessary, they can be done ahead of peak usage.

Maintain a physical enforcement presence: In any group, there will be a small number of individuals that will eschew the rules if they feel that they can “get away with it.” A visible enforcement presence will lessen the likelihood of bad behaviour.

Have an overflow plan: It is important to create a system of relief that can be enacted when enforcement and education need to be increased due to visitor demand in excess of supply.

Make the rules easy to understand: Visitors are more likely to follow rules if they are presented in a clear and concise manner, void of ambiguity and include some rationale. Rules with many exceptions are harder to convey in a manner that results in compliance.

Communicate early and often: As soon as uses, access and rules are developed, it is best to convey them to the public so that learning can start ahead of openings.

Be empathetic: Visitors are under an enormous amount of stress. They should be welcomed to our public spaces and encouraged to follow the rules in a gentle, empathetic manner. If possible, provide ways for visitors to comply with rules, if they are unable.

Community Education

Communities should take this opportunity to warn and educate residents about drowning prevention. Many of them will be swimming at these unsupervised sites this summer and should be informed about some basic safety steps they can take to protect themselves and their family members.

The Lifesaving Society's ongoing public education campaign aims to make Canadians "water smart." The campaign target groups, messages, and priorities are based on the Society's analysis of its annual drowning and other relevant research. The Water Smart® campaign encourages individuals in high-risk target groups to exercise safe and responsible behaviour in and around water to prevent water-related injuries.

**Appendix A:
Progressive Reopening Phases Model**

The suggested phases of reopening aquatic facilities in this table are guidelines only, do not necessarily correlate with provincial/territorial health authority plan phases for reopening and are not meant in any way to supersede them.

PHASES	PRECAUTIONS	ALLOWABLE ACTIVITIES AND FACILITIES
<p>Phase 0</p> <p>Ongoing community spread of COVID-19 in your region.</p>	<p>Act with extreme caution and keep all aquatic facilities closed.</p>	<ul style="list-style-type: none"> • None
<p>Phase 1</p> <p>Progressive reopening of aquatic facilities in compliance with provincial/territorial health authority.</p>	<p>The following activities and facilities can resume with:</p> <ul style="list-style-type: none"> • Controlled access and strict supervision. • Reduce bather loads and ensure physical distancing and disinfection measures. • High risk participants are prohibited. 	<ul style="list-style-type: none"> • Lifesaving or lifeguard training. • Emergency use of the facility for seasonal health emergencies (heat wave/high temperature warning). • Aquatic sports training for athletes recognized as being of national interest in view of their participation in the Olympic Games or national and international events. • Allow only essential equipment (e.g., PFD). <p><i>For waterfronts, outdoor pools and indoor pools only.</i></p>

PHASES	PRECAUTIONS	ALLOWABLE ACTIVITIES AND FACILITIES
<p>Phase 2</p> <p>If Phase 1 reopening does not generate a reoccurrence of the virus within the community, consider allowing more activities to be held in aquatic facilities.</p>	<p>The following activities and facilities can resume with:</p> <ul style="list-style-type: none"> • Controlled access and strict supervision. • Reduce bather loads and high distancing and disinfection measures. • Higher instructor/coach ratio. • High risk participants are prohibited. 	<ul style="list-style-type: none"> • Individual swimming lessons or training sessions that do not need physical manipulation by the instructor or coach • Supervised lane/lap swimming with reduced bather loads • Aquatic sports excluding groups that need physical manipulation by the coach • Aquatic fitness classes with instructors being out of the water (except for demonstrations) • Day camps • Water playgrounds with controlled access and supervision • Water parks with reduced bather loads and operating installations allowing easy distancing and disinfection measures
<p>Phase 3</p> <p>If phase 2 reopening do not generate a reoccurrence of the virus within the community, consider allowing more activities to be held in aquatic facilities.</p>	<p>The following activities and facilities can resume with:</p> <ul style="list-style-type: none"> • Reduce bather loads and high distancing and disinfection measures. • Higher instructor/coach ratio. • High risk participants are prohibited. 	<ul style="list-style-type: none"> • Recreational swimming • Swimming lessons excluding groups that need physical manipulation by the instructor and with instructors being out of the water (except for demonstrations) • Water parks • Whirlpools, saunas and steam rooms • Allow other equipment (e.g., toys) with proper disinfection procedure
<p>Phase 4</p> <p>Pandemic is over, COVID-19 is under control due to an appropriate treatment or an effective vaccine.</p>		<ul style="list-style-type: none"> • All activities can resume

Appendix B: Reopening Timeline Model

Step	Predecessor	Start	Duration	End
Government Announcement : Date when we know that operations can resume.		May 4, 2020		
Authorization to resume operations : Date when the break ends and aquatic activities can resume..				July 2, 2020
Guidelines for reopening by the Public Health Department.		May 4, 2020		
Carry out inventories and order equipment (sanitary, chemical, CPR and first aid products, etc.).	In order to reduce supply delays due to stock shortages, proceed now and shorten the schedule!	May 5, 2020	28 days	June 2, 2020
Integrate the Public Health Department's guidelines concerning COVID-19 (communication with clients, equipment procurement, updating the procedures and staff training.	Guidelines for reopening by the Public Health Department.	May 4, 2020	28 days	June 1, 2020
Fill, heat and empty the pool.	Government announcement.	May 5, 2020	14 days	May 19, 2020
Contact partners (clubs) and discuss their needs. Ideally maintain open communication from now on.	Government announcement.	May 5, 2020	5 days	May 10, 2020
Make programming adjustments and accept requests from partners.	Government announcement.	May 5, 2020	5 days	May 10, 2020
Hire staff and submit schedules.	Make programming adjustments and accept requests from partners.	May 5, 2020	14 days	May 19, 2020
Publicize updated programming and keep track of registrations.	Make programming adjustments and accept requests from partners.	May 11, 2020	25 days	June 5, 2020
Re-certify staff before the 2 years and 3 months expiry date of their certificates.	Fill, heat and empty the pool.	May 19, 2020	88 hours	August 15, 2020
Period where certificates are valid for a maximum period of 2 years and 3 months.	Authorization to resume activities.	July 2, 2020	45 days	August 15, 2020
Open to the public: Open swims and access to clubs.	Integrate the Public Health Department's recommendations, receive material orders and hire staff.	July 2, 2020		
Open to the public: Swimming and fitness classes.	Publicize updated programming and keep track of registrations.	June 6, 2020		
Holding sports competitions (the directives of the Public Health Department will take precedence).	One (1) month following the start of training..	August 2, 2020		

This chart is available online at <https://www.lifesaving.ca/safety-management-services.phyp>

**Appendix C:
Operator's Daily Checklist**

QUESTION	YES	COMMENTS
Does the employer check the condition of employees arriving at the aquatic facility?	<input type="checkbox"/>	
Are employees advised to leave the aquatic facility if they have any COVID-19 symptoms?	<input type="checkbox"/>	
Has the employer planned the work to respect physical distancing?	<input type="checkbox"/>	
Is physical distancing respected during the entry-exit of the aquatic facility? During breaks? During meals?	<input type="checkbox"/>	
Are toilets accessible at the aquatic facility?	<input type="checkbox"/>	
Are the toilets cleaned every 2 to 4 hours?	<input type="checkbox"/>	
Is the staff room table and high-touch points cleaned before and after each use?	<input type="checkbox"/>	
Is the staff room cleaned every day?	<input type="checkbox"/>	
Is there presence of water and hand washing soap?	<input type="checkbox"/>	
Are shared equipment or workstations cleaned after each use?	<input type="checkbox"/>	

Appendix D: WHO Procedure to Remove Gloves

GLOVE USE INFORMATION LEAFLET

Technique for donning and removing non-sterile examination gloves

When the hand hygiene indication occurs before a contact requiring glove use, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water.

I. HOW TO DON GLOVES:



1. Take out a glove from its original box



2. Touch only a restricted surface of the glove corresponding to the wrist (at the top edge of the cuff)



3. Don the first glove



4. Take the second glove with the bare hand and touch only a restricted surface of glove corresponding to the wrist



5. To avoid touching the skin of the forearm with the gloved hand, turn the external surface of the glove to be donned on the folded fingers of the gloved hand, thus permitting to glove the second hand



6. Once gloved, hands should not touch anything else that is not defined by indications and conditions for glove use

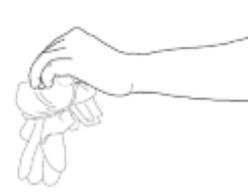
II. HOW TO REMOVE GLOVES:



1. Pinch one glove at the wrist level to remove it, without touching the skin of the forearm, and peel away from the hand, thus allowing the glove to turn inside out



2. Hold the removed glove in the gloved hand and slide the fingers of the ungloved hand inside between the glove and the wrist. Remove the second glove by rolling it down the hand and fold into the first glove



3. Discard the removed gloves

4. Then, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water

Appendix E: WHO Procedure to Remove Personal Protective Equipment

- 1** Remove waterproof apron and dispose of safely. If the apron is to be reused, place it in a container with disinfectant.



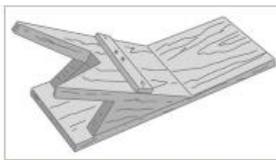
- 2** If wearing overshoes, remove them with your gloves still on (If wearing rubber boots, see step 4).



- 3** Remove gown and gloves and roll inside-out and dispose of safely.



- 4** If wearing rubber boots, remove them (ideally using the boot remover) without touching them with your hands. Place them in a container with disinfectant.



- 5** Perform hand hygiene.



- 6** If wearing a head cover, remove it now (from behind the head).



- 7** Remove face protection:
7a Remove face shield or goggles (from behind the head). Place eye protection in a separate container for reprocessing.



- 7b** Remove mask from behind the head. When removing mask, untie the bottom string first and the top string next.



- 8** Perform hand hygiene.



Source: Modified from Clinical Management of Patients with Viral Haemorrhagic Fever: A pocket Guide for the Front-line Health Worker. World Health Organization, 2014



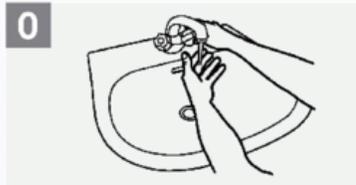
All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

Appendix G:

How to Handwash?

WASH HANDS WHEN VISIBLY SOILED! OTHERWISE, USE HANDRUB

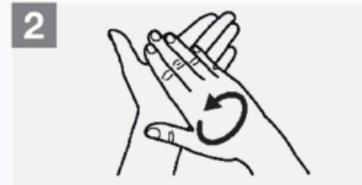
 Duration of the entire procedure: 40-60 seconds



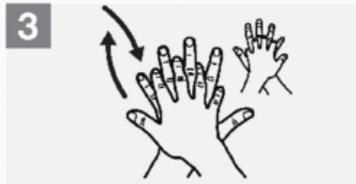
0 Wet hands with water;



1 Apply enough soap to cover all hand surfaces;



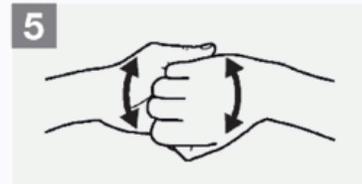
2 Rub hands palm to palm;



3 Right palm over left dorsum with interlaced fingers and vice versa;



4 Palm to palm with fingers interlaced;



5 Backs of fingers to opposing palms with fingers interlocked;



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



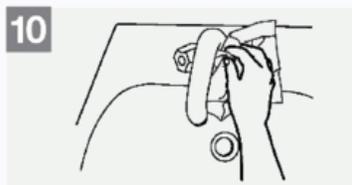
7 Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa;



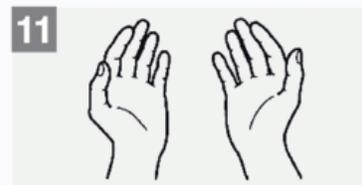
8 Rinse hands with water;



9 Dry hands thoroughly with a single use towel;



10 Use towel to turn off faucet;



11 Your hands are now safe.



World Health Organization

Patient Safety
A World Alliance for Safer Health Care

SAVE LIVES
Clean Your Hands

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this document. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use. WHO acknowledges the H piaux Universitaires de Gen ve (HUG), in particular the members of the Infection Control Programme, for their active participation in developing this material.

Appendix H: Recreational Swimming / Day Camp and Groups Organization Model

Reception, Participant Health Check and Promotion of Behaviours that Prevent the Spread of COVID-19

- Educate swimmers on the rules of physical distancing, hygiene and respiratory etiquette.
- Do not allow entry to anyone with symptoms or who has been in contact with someone with symptoms.
- Encourage swimmers to bring their own PFD and training equipment.

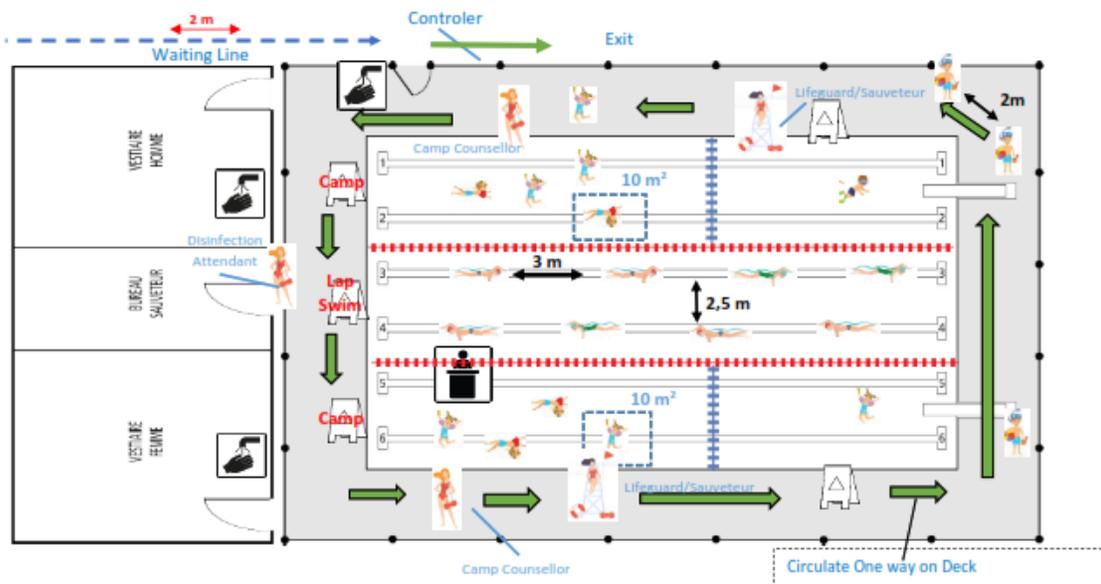
Physical Distancing (2 m)

- If possible, participants take a shower and change at home with access to the change room limited.
- Swimming in one-way lanes, no overtaking, maintain a distance between swimmers and keep ends of lanes free.
- Use the space on deck reserved for you or your household members or camp group.

Hand Hygiene and Respiratory Etiquette, Cloth Face Coverings

- Ask swimmers to wash hand with soap for 20 seconds before swimming.
- Encourage swimmers to wash hands often, to cover a sneeze or cough and throw away tissues as soon as used.
- Encourage swimmers to cover their face: wear a cloth or mask when on deck except for swimming in the water.
- Do not share training equipment, kickboard, pull buoy or personal flotation device (PFD); otherwise disinfect between each use.

Model of organization of aquatics activities with physical distance



SCHEDULE TYPE (from 9 am to 4 pm)

<u>LAP SWIM (# patrons)</u>
9:00 am to 10 am (x8)
10:15 am to 11:15 am (x8)
11:30 am to 12:30 pm (x8)
12:45 pm to 1:30 pm (x8)
1:45 pm to 2:30 pm (x8)
2:45 pm to 3:45 pm (x8)
6 groups of 8 patrons = 48 patrons/day

Estimated space allowed per swimmer

Pool = 25m x 15m = 375m²

Lap swim = 125 m² for 8 swimmers = 15 m² per swimmer

Diving = 2 x 50 m² = 100 m² for 2 divers = 25 m² per diver

Shallow = 2 x 75 m² = 150 m² for 25 children = 6 m² per bather

Deck = 220 m² for 34 bathers + 6 staff = 40 persons = 5.5 m² per bather

Restroom = 2 x 10 m² = 20 m² for 4 children + 1 staff = 5 persons = 4 m² per user

Appendix I: Lanes / Lap Swimming Organization Model

Reception, Participant Health Check and Promotion of Behaviours that Prevent the Spread of COVID-19

- Educate swimmers on the rules of physical distancing, hygiene and respiratory etiquette.
- Deny entry to anyone with symptoms or who has been in contact with someone with symptoms.
- Encourage swimmers to bring their own PFD and training equipment.

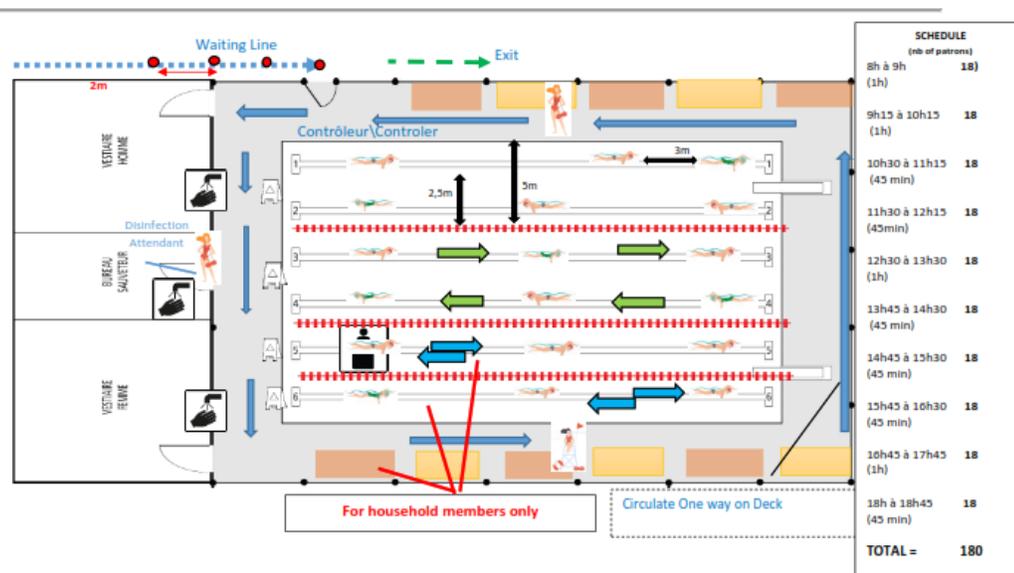
Physical Distancing (2 m)

- If possible, take a shower and change at home with access to the changeroom limited.
- Swimming in one-way lanes. No overtaking. Maintain a distance between swimmers and keep ends of lanes free.
- Use the space on deck reserved for you or your household members or camp group.

Hand Hygiene and Respiratory Etiquette/ Cloth Face Coverings

- Ask swimmers to wash hand with soap for 20 seconds before swimming.
- Encourage swimmers to wash hands often and to cover a sneeze or cough and throw away tissues as soon as used.
- Encourage swimmers to cover their face: wear a cloth or mask when on deck except for swimming in the water.
- Do not share training equipment, kickboard, pull buoy or personal floating device (PFD); otherwise disinfect between each use.

Model of organization of aquatics activities with physical distance



Appendix J: Lifeguard Training Model

Reception, Participant Health Check and Promotion of Behaviours that Prevent the Spread of COVID-19

- Educate swimmers on the rules of physical distancing, hygiene and respiratory etiquette.
- Deny entry to anyone with symptoms or who has been in contact with someone with symptoms.

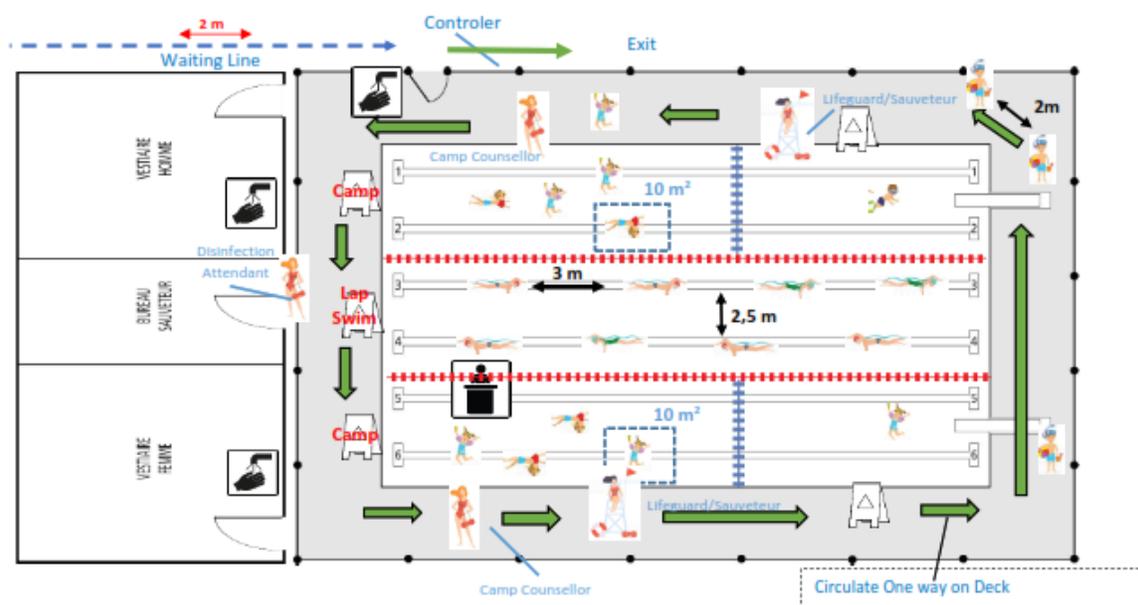
Physical Distancing (2 m)

- Whenever possible, perform all components of the training and distance training using physical distancing.
- If possible, participants take a shower and change at home with limited access to change rooms.
- Swimming in one-way lanes. No overtaking. Maintain a distance between swimmers and keep ends of lanes and exit points free.
- Use manikins when possible or encourage practice with a resident at the same address.

Hand Hygiene and Respiratory Etiquette / Cloth Face Coverings

- Frequent hand washing for 20 seconds. Cover a sneeze or cough and throw away tissues as soon as used.
- Cover your face: wear a fabric mask when on deck and during rescue practices within 2 m except for activities in the water.
- Do not share manikins, rescue and training equipment; otherwise disinfect them between each use.

Model of organization of aquatics activities with physical distance



Appendix K: Rescue Ready Assessment Recommendations

The Rescue Ready Assessment recommendations do not replace National Lifeguard or First Aid recertification courses. The recommendations are intended to provide guidance to owners and operators of aquatic facilities when reactivating returning staff.

- Use a blended learning approach to train returning staff. Prior to in-person training use online learning for COVID-19 specific protocols developed to manage your facility and its operations.²
- Follow your community guidelines that have been developed for restoring services.

Rationale

After an extended period of absence from work, aquatic staff must be ready to provide effective safety supervision to the public participating in aquatic activities.

Strategies

1. Owners and operators should assess skills and fitness items specific to the facility's needs.
2. The Rescue Ready Assessment recommendations provide an example of skills and fitness that may be required by the owner and operator for staff to successfully perform rescues in their facility when called on to do so.
3. Address the assessment criteria with staff prior to the assessment taking place as well as what remedies will be in place should assessment results be unsatisfactory.
4. Document all return to work assessments of staff. Records must have the date, name and signature of all staff members who receive training.
5. Ensure that candidates maintain physical distance requirements during all aspects of the assessment and that equipment is appropriately disinfected.

Lifeguard and Assistant Lifeguard* Pool Sample Assessment:

The owner and operator need to adjust the assessment according to the aquatic facility specifications and activities.

Fitness is an injury prevention measure for the employee and demonstrates their ability to perform rescue skills following aerobic requirement of a rescue.

1. Object recovery: Starting in the water, swim 15 m and surface dive to recover a 9 kg (20 lb.) object; surface and carry the object 5 m.
2. Demonstrate anaerobic fitness: Starting in the water, swim 50 m head-up.
3. Demonstrate effective management of a distressed or drowning victim in deep water in a pandemic context (COVID-19 protocols: use a training manikin, family member, etc.).

² Aquatic Facility Information Bulletin – COVID-19 Facility Operations: Recommendations for Progressive Reopening

4. Demonstrate effective management of a submerged, non-breathing victim and perform 10 cycles of 30 compressions on a CPR manikin (COVID-19 protocols: use a training manikin, family member, etc.)

Lifeguard and Assistant Lifeguard* Waterfront Sample Assessment:

The owner and operator need to adjust the assessment according to the aquatic facility specifications and activities. Fitness is an injury prevention measure for the employee and demonstrates their ability to perform rescue skills following aerobic requirement of a rescue.

1. Demonstrate aerobic endurance: Run 100 m with a rescue aid to enter the water; swim 100 m to recover a conscious victim; tow the victim 100 m.
2. Demonstrate effective use of a rescue board or rescue craft: Approach 5 m on a beach; enter the water with a rescue craft; pick up a victim (a floating object) 100 m away and return to shore.
3. Demonstrate effective management of a distressed or drowning victim in deep water in a pandemic context (COVID-19 protocols: use a training manikin, family member, etc.).
4. Demonstrate effective management of a submerged, non-breathing victim and perform 10 cycles of 30 compressions on a CPR manikin (COVID-19 protocols: use a training manikin, family member, etc.).

*Where **Assistant Lifeguards** are employed for safety supervision, the number of Assistant Lifeguards on active swimmer safety surveillance (on deck) shall not exceed the number of National Lifeguards on deck.

Appendix L: COVID-19 Guidelines for In-Water Rescue

Includes any water-related incident (spinals, DNS, seizures, submerged victims)

Use a blended learning approach to train your returning staff. Prior to in-person training use online learning for COVID-19 specific protocols developed to manage your facility and its operations.

Follow your community guidelines that have been developed for restoring services.

Rescuers should consider the use of non-contact rescue where appropriate.

1. Prior to entering the water rescuers should remove any face coverings being worn.
2. For in-water rescuers, whenever possible, approach the victim in a manner to avoid face-to-face proximity.³
3. For all rescues, minimize the number of rescuers who have direct contact with victims.
4. Where possible, designate a staff member to take the lead during first aid and resuscitation. This allows in-water rescuers time to dry off and don PPE before they continue victim care.
5. At each focal point, provide a dry container including hand sanitizer and PPE for 2 rescuers, a victim and a bystander.
6. After each rescue, all rescuers, victims and bystanders should practice hand hygiene, shower with soap, change their clothes, bag clothes worn during the rescue (to be washed).
7. Follow the disinfection protocols⁴ for all rescues and equipment used by staff when providing care.

The following guidelines are COVID-19 adaptations of assessment and treatment actions to be performed in conjunction with specific interventions required by a victim's condition.

Scene & Risk Assessment

- Ensure scene is safe
- Minimize the number of rescuer contacts with victim (where possible maintain physical distancing of 2m)
- Don appropriate PPE (protect self/partner/other responders)
- Manage/mitigate any hazards/risks
- Victim health history - COVID-19

³ International Liaison Committee on Resuscitation (ILCOR) COVID-19 Practical Guidance for Implementation

⁴ US Centers for Disease Control and Prevention (CDC) - Cleaning and Disinfecting Your Facility - Everyday Steps, Steps When Someone is Sick, and Considerations for Employers. <https://www.cdc.gov/coronavirus/2019-ncov/community/disinfecting-building-facility.html>

- Mechanism of Injury
- Request additional resources as required
- Continuous and dynamic scene assessment

Primary Assessment

- ABCs
- EMS
- Treat for shock
- Preparing for transport

Secondary Assessment (promote self-treatment or treatment by a family member)

- Vital signs
- History - Functional Inquiry
- Head-to-Toe Exam
- Treatment
- Victims who can walk to the ambulance or access point should be encouraged to do so to reduce the risk of COVID-19 transmission.

Respiratory hygiene measures for victims

- Offer a facemask/face-cover to all victims.
- Ensure that all victims cover their nose and mouth with a tissue or elbow when coughing or sneezing.

First aid for children and minors

- Wherever possible initiate first aid for children and minors by asking parents or caregivers to provide aid.⁵
- Provide appropriate PPE i.e. facemask/face cover and gloves for those providing aid and the victims.

⁵ Appendix N: First Aid and Resuscitation Guidelines for COVID-19

Below are some examples of how these guidelines may be applied. Rescuers should consider the use of non-contact rescues where appropriate. The First Aid designate is highlighted in blue.

<p>Example 1</p> <p>1 guard* & trained backup</p> <p>e.g., trained back-up or Assistant Lifeguard</p>	<ol style="list-style-type: none"> 1. Lifeguard signals and enters water with rescue aid. 2. Other staff providing backup clear the water, get equipment, don PPE⁶. 3. If needed - assists in victim removal. 4. All Rescuers involved with victim care should dry off and don appropriate PPE before continuing victim care. 5. Provide face mask to victim during care. 6. If available, direct other facility staff or a bystander. <ul style="list-style-type: none"> • to assist in complex rescues • to call EMS 7. Follow disinfection protocols post-rescue.
<p>Example 2:</p> <p>2 guards*</p> <p>e.g., 2 LGs or 1 LG + 1 Assistant Lifeguard</p>	<ol style="list-style-type: none"> 1. Rescuer 1: Signals and enters water with rescue aid. 2. Rescuer 2: Initiates clearing the water, provides backup, assists with victim removal. <ul style="list-style-type: none"> • if not needed in the water, get equipment and don PPE. 3. All Rescuers involved with victim care should dry off and don appropriate PPE before continuing victim care. 4. Provide face mask to victim during care. 5. If available, direct other facility staff or a bystander. <ul style="list-style-type: none"> • to assist in complex rescues • to call EMS 6. Follow disinfection protocols post-rescue.
<p>Example 3:</p> <p>3 (or more) guards*</p> <p>e.g., 3 LGs or 2 LGs + 1 Assistant Lifeguard</p>	<ol style="list-style-type: none"> 1. Rescuer 1: Signals and enters water with rescue aid. 2. Rescuer 2: initiates clearing the water, provides backup and assist with victim removal. 3. Rescuer 3/First Aid Designate: upon removal assume primary victim care. 4. All Rescuers involved with victim care should dry off and don appropriate PPE before continuing victim care. 5. Provide face mask to victim during care. 6. If available, direct other facility staff or a bystander. <ul style="list-style-type: none"> • to assist in complex rescues • to call EMS 7. Follow disinfection protocols post-rescue.

*Where **Assistant Lifeguards** are employed for safety supervision, the number of Assistant Lifeguards on active swimmer safety surveillance (on deck) shall not exceed the number of National Lifeguards on deck.

⁶ Appendix P: Lifeguard Personal Protective Equipment

Appendix M:
COVID-19 Protocols for Safety Education and Rule Enforcement

- Use a blended learning approach to train returning staff. Prior to in-person training use online learning for COVID-19 specific protocols developed to manage your facility and its operations.⁷
- Practice physical distancing which may include wearing protective facemask/face-covering while providing safety education and rule enforcement.
- Where possible and needed, designate a staff member to inform and educate the public concerning COVID-19 specific protocols.
- Staff performing safety supervision should not be engaged in any other duties.
- An important reminder for staff is that when providing information and enforcing rules, not all patrons will be initially accepting of the new protocols for the facility.
- All staff should be reminded of the need for sensitivity regarding policies concerning customer service as well as personal safety in regard to harassment in the workplace.

Below are examples of how these guidelines may be applied.

1. Prior to entering the facility, inform and educate the public, parents and caregivers of all new admission requirements including health questions and their responsibilities regarding physical distancing from non-family members for all activities and facility amenities.
2. Inform and educate patrons concerning one-way traffic measures around the facility, such as, entering and exiting showers, change rooms or toilet facilities.
3. Inform and educate patrons on measures put in place to avoid crowd gathering and to encourage physical distancing in waiting lines for recreational equipment.
4. Inform and educate program participants about not sharing personal equipment such as water bottles, towels, goggles, etc.
5. Wherever possible, lifeguards should maintain physical distancing while providing effective and consistent rule enforcement and accident prevention.
6. Wherever possible, lifeguards should maintain physical distancing when providing information with other team members.
7. Lifeguards should follow and maintain new protocols concerning regular disinfection of common contact surfaces throughout the operational day⁸.

⁷ Aquatic Facility Information Bulletin – COVID-19 Facility Operations: Recommendations for Progressive Reopening

⁸ COVID-19 Aquatic Facility Maintenance: Cleaning, Decontamination and Safe Water Management for Aquatic Facilities.

Appendix N: First Aid and Resuscitation Guidelines for COVID-19

Principles of Mitigating Risk of Infection When Administering First Aid and Resuscitation

The purpose of this section is to assist lifeguards in assessing risk at each step of the rescue process. These principles do not replace lifeguard skills acquired in Standard First Aid. They provide supplemental considerations for use throughout the process to assist in mitigating risk.

SCENE ASSESSMENT

- Maintain physical distancing (2 m) whenever possible.
- Collect information about the health status of the victim with regard to COVID-19.
 - It is important to pass this information on to EMS, allowing them to provide optimal treatment to the victim.
 - This information may be obtained from the victim, the victim's caregiver, bystanders, etc.
 - Determining the victim's health status and COVID-19 infection can be accomplished by asking common questions.

PRIMARY ASSESSMENT

- Maintain physical distancing (2 m) whenever possible.
- Determine if the victim's condition requires the lifeguard to make direct contact with the victim. For clarity on 'no contact' as compared to 'direct contact' first aid treatment, see Appendix O: *Decision Tree for First Aid During a COVID-19 Era*.
 - Alternative options may include a victim's caregiver or family member administering first aid treatment with lifeguard direction (e.g., direct pressure to a wound, cleaning and bandaging, providing ventilation when resuscitation is required).
 - Don PPE: surgical mask, eyewear protection, gloves. A gown is optional. Where possible the victim should also don PPE. For level of PPE required, see Appendix E: *Personal Protective Equipment*.
- When victim history indicates positive or suspected COVID-19, inform EMS.
- Regardless of direct or indirect contact, proper hand hygiene is important following all first aid treatment. Proper hand hygiene includes washing with soap and water or hand sanitizer (60% alcohol or higher) for 20 seconds.

SECONDARY ASSESSMENT

- Maintain physical distancing (2 m) whenever possible.
- Only take vital signs that can be observed from a distance (i.e., skin colour, visual breathing check) or are required for victim treatment decisions (i.e., skin temp of a possible heat stroke victim).

POST-RESCUE PROCESS

- Take care to remove and dispose of PPE in a safe manner.
- Disinfect all surfaces that may have come in contact with the victim or rescuer during treatment (e.g., chair, clipboard, pen).
- Where required, practice personal decontamination
- For clarity regarding first aid disinfection protocols, see *Aquatic Facility Maintenance, Cleaning and Disinfection*, p. 33.

Levels of Risk and Personal Protective Equipment (PPE)

Due to the nature of COVID-19 as an aerosol transmitted pathogen, first aid protocols have been categorized into low-risk and high-risk categories. High-risk protocols include all treatments that generate aerosols, while protocols that do not generate aerosols fall under the low-risk category. Rescuers don PPE in accordance with the level of risk they encounter.

Identified high-risk (aerosol-generating) protocols are as follows:

- Chest compressions
- Ventilations
- High-flow oxygen administration (greater than 5 lpm)
- Suction
- Abdominal thrusts/back blows

All rescuers within 2 m of the victim must don appropriate PPE for high-risk protocols. For clarity on when to use PPE, see Appendix P: *Lifeguard Personal Protective Equipment*.

Oxygen

The use of high flow oxygen is considered high-risk as it generates aerosols and therefore should be reserved for:

- Victims in need of resuscitation
- Children and infant victims
- Drowning victims

Suction

The use of suction is considered high-risk as it generates aerosols. Clearing an airway using suction is not recommended at this time. Instead, roll the victim to allow drainage and utilize a finger sweep (with proper PPE) if required.

Itemized List of Personal Protective Equipment for Lifeguards

Most PPE components come in different sizes and it is important to stress that PPE does not follow a one-size-fits-all principle. A proper PPE fit is essential to obtain protection; a non-suitable size will not protect its wearer. Employers must ensure that PPE is available in proper sizes, is clean, workers are trained on its use, fit testing where required, and workers follow established protocols for its use.

Respiratory Protection: Aquatic staff who cannot maintain physical distancing should wear at least a non-medical mask or cloth face covering. Aquatic staff responding to a first aid situation should wear at least a surgical mask.

Surgical Mask (3-layered): reduces transmission of aerosol by 50% and protects from contracting aerosol route infection from others by 75%-80%. Surgical masks must be dry to be effective.

Non-medical mask or cloth face coverings: Cloth face coverings may slow the spread of the virus and help people who may have the virus and do not know it from transmitting it to others. Cloth face coverings can be made from household items. Wearing cloth face coverings in public settings where other social distancing measures are difficult to maintain, such as grocery stores, pharmacies, and gas stations.

Mask and face coverings are prohibited in the water for lifeguards and patrons at all times.

Eye Protection: Face shields or personal protective goggles may be used. Both face shields and personal protective goggles prevent virus exposure of the eye mucosa. Protective goggles must fit the user's facial features and be compatible with the respiratory protection. Corrective lenses or safety glasses do not provide adequate protection. Protective eyewear may be reused once disinfected.

Hand Protection: Non-latex medical exam gloves should be used. Practice hand hygiene after gloves are removed.

Body Protection: Where possible, long-sleeved water-resistant gowns should be used to prevent body contamination. If water-resistant gowns are not available, remove and launder all clothing once treatment is finished. For both options, practice personal hygiene following use.

Bag-valve-mask with viral filter (e.g., HEPA): The viral filter or high-efficiency particulate air (HEPA) filter minimizes the risk of virus spread during ventilations. Viral filters must remain in their original packaging and be dry to be effective.

Pocket Mask with a viral filter (e.g., HEPA): The viral filter or high-efficiency particulate air (HEPA) filter minimizes the risk of virus spread during ventilations. Viral filters must remain in their original packaging and be dry to be effective.

Keeping Personal Protective Equipment Organized, Clean and Dry

As certain PPE (such as masks) must remain dry to be effective, it is strongly recommended that protocols that address PPE storage be added to facility safety plans.

Examples

Each lifeguard will have first contact PPE on their person including gloves and 2 surgical masks. The gloves and surgical masks may be kept in a resealable zip-top bag to avoid getting wet.

Each focal point will have a dry storage container that includes PPE for 2 rescuers and a bystander, resuscitation equipment (BVM with viral filter, etc.), hand sanitizer and disinfection wipes.

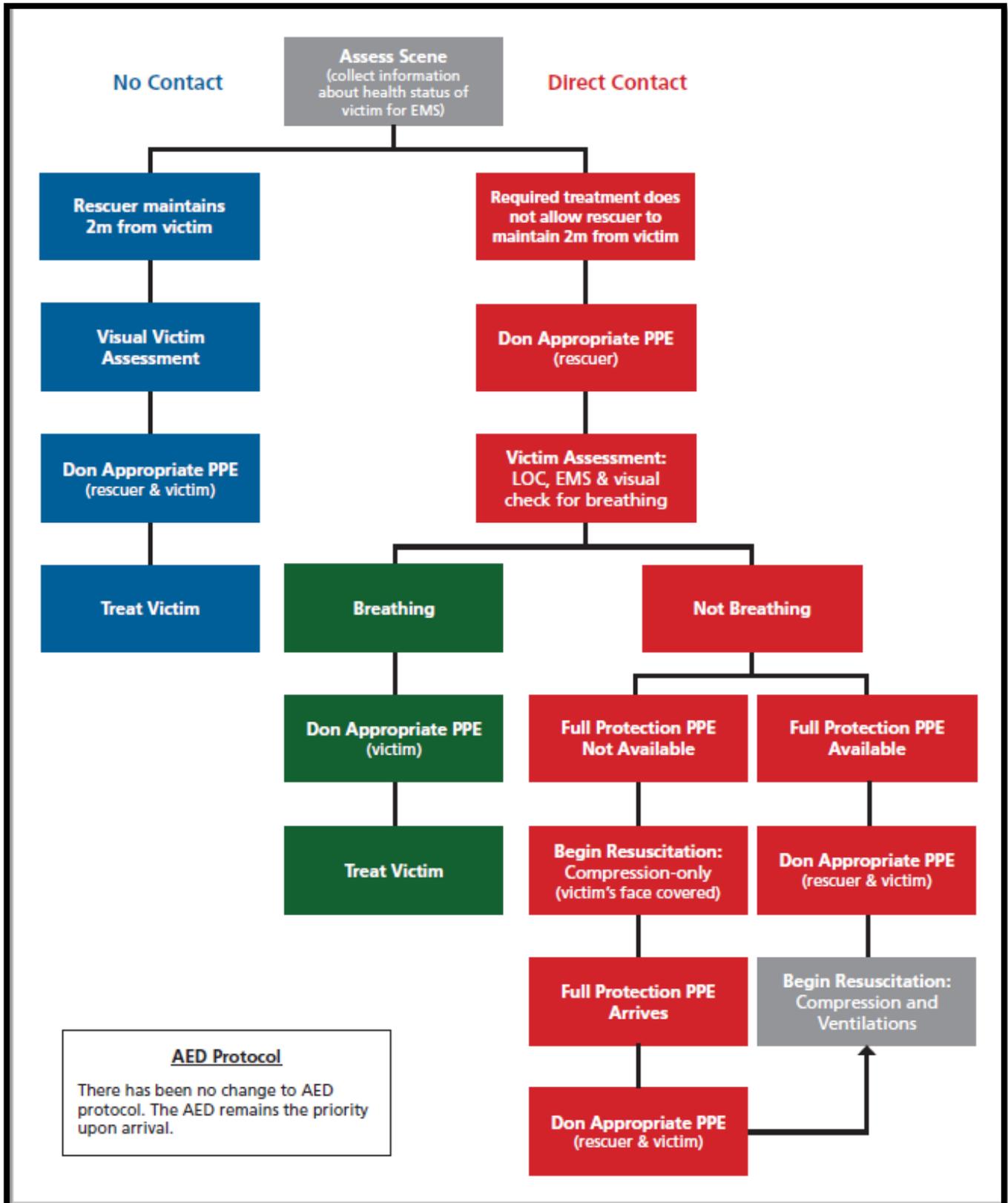
Personal Protective Equipment Disinfection

Proper disposal of single-use equipment and proper disinfection of reusable equipment is necessary for ensuring the safety of both staff and patrons. For proper disinfection of reusable equipment, see manufacturer's specifications. Where no specifications exist, the following ratios are recommended.

The Centers for Disease Control and Prevention (CDC) recommend a 1:10 dilution ratio for household bleach, or a 1:20 ratio for commercial sodium hypochlorite solution to disinfect PPE, then let air dry. Typically, 1 to 10 minutes contact time is recommended.

For full disinfection recommendations, see *Aquatic Facility Maintenance, Cleaning and Disinfection*, p. 33.

Appendix O:
COVID-19 Decision Tree for First Aid & Resuscitation



**Appendix P:
Lifeguard Personal Protective Equipment**

NO CONTACT	DIRECT CONTACT	
2 m physical distancing is maintained between the rescuer and victim	<p style="text-align: center;">LOW-RISK</p> <p style="text-align: center;">Non-aerosol-generating treatment</p> <p style="text-align: center;">2 m physical distancing will compromise victim outcome</p>	<p style="text-align: center;">HIGH-RISK</p> <p style="text-align: center;">Aerosol-generating treatment</p> <p style="text-align: center;">2 m physical distancing will compromise victim outcome</p>
<p>RESCUER: gloves, surgical mask with face shield/goggles</p> <p>VICTIM: surgical mask if possible</p>	<p>RESCUER: face shield/goggles, gloves, surgical mask</p> <p>VICTIM: surgical mask if possible</p>	<p>RESCUER: face shield/goggles, gloves, surgical mask, gown optional</p> <p>VICTIM: (in order of preference)</p> <p>BVM with viral filter & continuous seal</p> <p>OR</p> <p>Pocket mask with viral filter & continuous seal</p> <p>OR</p> <p>Non-rebreather face mask with supplemental oxygen and open airway</p> <p>OR</p> <p>Pocket mask with viral filter and head strap (single rescuer only)</p> <p>OR</p> <p>Surgical mask (compression-only CPR)</p> <p>NOTE: When continuous seal cannot be maintained during compressions, a pocket mask with a head strap to maintain a seal must be put over the victim's mouth and nose (i.e. while the AED is being applied).</p>

References

- American Heart Association, *BLS Healthcare Provider Adult Cardiac Arrest Algorithm for Suspected or Confirmed COVID-19 Patients*, Updated April 2020.
- American Heart Association, *Interim Guidance for Basic and Advanced Life Support in Adults, Children, Neonates with Suspected/Confirmed COVID-19*, April 9, 2020.
- American Heart Association, *Training Memo: Optional Instructional Changes during COVID-19 Outbreak*, March 10, 2020.
- American Heart Association. *Training Memo: Optional Instructional Changes during COVID-19 Outbreak*. American Heart Association: Web: 10 March 2020
- American Red Cross, *COVID-19 Guidance*, Web: April 2020.
- American Red Cross, *Manikin Decontamination and Use*, April 2020.
- BC Centre for Disease Control and BC Ministry of Health, *Coronavirus COVID-19: Respiratory Protection for Health care Workers Caring for Potential or Confirmed COVID-19 Patients*, March 6, 2020.
- Campbell & Kahwash, *Complement Inhibition for COVID-19*, American Heart Association Journals, Web: April 20, 2020.
- Centers for Disease Control and Prevention. *Cleaning And Disinfecting Your Home*: Web: 2 April 2020
- Centers for Disease Control and Prevention. *Guidance for Administrators in Parks and Recreational Facilities*. Web: April 2020.
- Centers for Disease Control and Prevention. *Healthy Swimming website*: Web: 21 April 2020
- Centers for Disease Control and Prevention. *How to Protect Yourself & Others*: Web: 13 April 2020
- Centers for Disease Control and Prevention (CDC) and National Institute for Occupational Safety and Health (NIOSH), *Infographic – Understanding the Difference, Surgical mask, N95 Respirator*, April 2020.
- Centers for Disease Control and Prevention. *Information about Drinking Water, Treated Recreational Water, and Wastewater*. Web: 23 April 2020
- Centers for Disease Control and Prevention. *Interim Guidance for Emergency Medical Services (EMS) Systems and 911 Public Safety Answering Points (PSAPs) for COVID-19 in the United States*. Web: April 2020.
- Centers for Disease Control and Prevention. *MMWR Hospitalization Rates and Characteristics of Patients Hospitalized with Laboratory-Confirmed Coronavirus Disease 2019*: Web: 16 April 2020.
- Centers for Disease Control and Prevention. *Reopening Guidance for Cleaning and Disinfecting Public Spaces, Workplaces, Businesses, Schools, and Homes*. Web: April 2020
- Centers for Disease Control and Prevention. *Resources for Large Community Events & Mass Gatherings*: Web: 21 March 2020

Centers for Disease Control and Prevention. *Resources for Parks and Recreational Facilities*: Web: 11 April 2020

Centers for Disease Control and Prevention. *Visiting Parks and Recreational Facilities*: Web: 10 April 2020

Ellis & Associates, *Aquatic Industry Update April 29, 2020*, Web: April 29, 2020.

Emergency Cardiovascular Care Committee and Get With the Guidelines® – Resuscitation Adult and Pediatric Task Forces of the American Heart Association. *Interim Guidance for Life Support for COVID-19*: Web: 11 April 2020

European Centre for Disease Prevention and Control (ECDC), *Guidance for wearing and removing personal protective equipment in healthcare settings for the care of patients with suspected or confirmed COVID-19*. February 2020.

European Resuscitation Council. *COVID-19 Guidelines*, Web: April 24, 2020.

Gervais, Marie-Christine et Claire Laliberté. *Mesures d'adaptation à la chaleur, confort thermique et qualité de l'air intérieur dans l'habitation*. Institut national de santé publique du Québec : Web. Juin 2016

Gouvernement du Canada. *Extreme heat: heat waves* : Web : 28 February 2020

Gouvernement du Québec. *Coronavirus disease (COVID-19) in Québec*: Web: 10 April 2020

Groupe de travail SAT-COVID-19. *Recommandations pour les centres de jardin et de piscines, pépinières et entreprises d'aménagement paysager – Phase de reprise progressive des activités*. Institut national de santé publique du Québec : Web. 13 Avril 2020

Heart & Stroke Foundation, *Modification to Hands-Only CPR during COVID-19 pandemic*, April 2020.

Institut national de santé publique du Québec. *COVID-19 : Eau potable et eau de baignade* : Web : 5 Avril 2020

Institut national de santé publique du Québec. *COVID-19 : Mesures de prévention en milieu de travail : Recommandations intérimaires*. Institut national de santé publique du Québec : Web. 5 Avril 2020

Institut national de santé publique du Québec. *COVID-19 : Nettoyage de surfaces*. Institut National de santé publique : Web : 15 Avril 2020

Institut national de santé publique du Québec. *La qualité des eaux récréatives au Québec et les risques à la santé* : Web : n.d

International Drowning Researchers Alliance (IDRA), International Life Saving Federation - Medical Committee (ILS-MC) and International Maritime Rescue Federation (IMRF), *Resuscitation of the Drowned Person in the Era of COVID-19 Disease: Recommendations, Identification of Research Needs and Global Call to Action*, April 21, 2020.

International Liaison Committee on Resuscitation (ILCOR). *COVID-19 infection risk to rescuers from patients in cardiac arrest*. Web: March 30, 2020.

Lifesaving Society. *Swim to survive*: Web: n.d

Lifesaving Society Ontario. *Cleaning, decontamination, and safe water management of aquatic facilities*. April 29, 2020.

Royal Life Saving Society Australia. *COVID-19 Pandemic and the Case for Re-opening Aquatic Centres and Swim Schools*: Web: April 30, 2020.

Salvi, Sundeep, Review Article: *In this pandemic and panic of COVID-19 what should doctors know about masks and respirators?* April 2020.

Shared Health Manitoba, *Provincial Requirements for Personal Protective Equipment (PPE)*. April 21, 2020.

Société de sauvetage. *Faits saillants sur les noyades et les autres décès liés à l'eau au Québec de 2009 à 2015* : Web : 2020

StarGuard Elite, Justin Sempsrott, Webinar: *COVID-19 Update*, April 29 2020.

The Global Attraction Industry (IAAPA) *COVID-19 REOPENING GUIDANCE Considerations for the Global Attractions Industry First Edition* May 1, 2020

The Public Service Alliance of Canada. *COVID-19: Your rights at work *UPDATED** Web: April 9, 2020.

United States Lifesaving Association. *Lifeguarding and COVID-19*: Web: 23 April 2020

Water Research Australia, *Factsheet: SARS-CoV-2 - Water and Sanitation*, March 5, 2020.

World Health Organization. *Glove Use Information Leaflet*: Web: August 2020

World Health Organization, *Interim Guidance: Infection prevention and control during health care when COVID-19 is suspected*, March 19, 2020

World Health Organization. *Q&A on coronaviruses (COVID-19)*: Web: 17 August 2020.

World Health Organization. *Steps to remove personal protective equipment (PPE)*: Web: n.d

Publications of the Lifesaving Society are available from any Branch office. Inquiries from outside Canada should be directed to the National Office.

Alberta & Northwest Territories Branch

13123 - 156 Street NW
Edmonton, Alberta T5V 1V2
Telephone: (780) 415-1755
Fax: (780) 427-9334
E-mail: experts@lifesaving.org
Web site: www.lifesaving.org

British Columbia & Yukon Branch

112 - 3989 Henning Drive
Burnaby, British Columbia V5C 6N5
Telephone: (604) 299-5450
E-mail: info@lifesaving.bc.ca
Web site: www.lifesaving.bc.ca

Manitoba Branch

100-383 Provencher Blvd.
Winnipeg, Manitoba R2H 0G9
Telephone: (204) 956-2124
Fax: (204) 944-8546
E-mail: info@lifesaving.mb.ca
Web site: www.lifesaving.mb.ca

National Office

1145 Hunt Club Road, Suite 001
Ottawa, Ontario K1V 0Y3
Telephone: (613) 746-5694
Fax: (613) 746-9929
E-mail: experts@lifesaving.ca
Web site: www.lifesaving.ca

New Brunswick Branch

70 Melissa Street
Fredericton, New Brunswick E3A 6W1
Telephone: (506) 455-5762
Fax: (506) 450-7946
E-mail: info@lifesavingnb.ca
Web site: www.lifesavingnb.ca

Newfoundland & Labrador Branch

11 Austin Street
P.O. Box 8065, Station "A"
St. John's, Newfoundland A1B 3M9
Telephone: (709) 576-1953
Fax: (709) 738-1475
E-mail: info@lifesavingnl.ca
Web site: www.lifesavingnl.ca

Nova Scotia Branch

5516 Spring Garden Road, 4th Floor
Halifax, Nova Scotia B3J 1G6
Telephone: (902) 425-5450
Fax: (902) 425-5606
E-mail: experts@lifesavingsociety.ns.ca
Web site: www.lifesavingsociety.ns.ca

Ontario Branch

400 Consumers Road
Toronto, Ontario M2J 1P8
Telephone: (416) 490-8844
Fax: (416) 490-8766
E-mail: experts@lifeguarding.com
Web site: www.lifesavingsociety.com
www.lifeguarddepot.com

Prince Edward Island Branch

40 Enman Crescent
Charlottetown, Prince Edward Island C1E 1E6
Telephone: (902) 967-4888
E-mail: info@lifesavingsocietypei.ca
Web site: www.lifesavingsocietypei.ca

Quebec Branch

4545 Pierre de Coubertin Avenue
Montreal, Quebec H1V 0B2
Telephone: (514) 252-3100 or 1-800-265-3093
Fax: (514) 254-6232
E-mail: alerte@sauvetage.qc.ca
Web site: www.sauvetage.qc.ca

Saskatchewan Branch

2224 Smith Street
Regina, Saskatchewan S4P 2P4
Telephone: (306) 780-9255
Fax: (306) 780-9498
E-mail: lifesaving@sasktel.net
Web site: www.lifesavingsociety.sk.ca



LIFESAVING SOCIETY®

The Lifeguarding Experts