MEDICAL INFO FOR PANAM AQUATICS

UANA SPORTS MEDICINE COMISSION

COVID-19 Open Water and Pool Implications

The World Health Organization declared Covid-19 a global pandemic on March 11, 2020. As the world struggles to manage the effects of this devastating novel coronavirus, there are many emerging challenges and questions now being raised. For our aquatics community, concerns regarding water quality and safety in both the pool and open water environment are paramount. There are many unanswered questions, here is a brief summary on what the medical/scientific community has been able to provide at this point.

DRINKING WATER

Currently there is no evidence that COVID-19 can be transmitted through contaminated drinking water. The risk is considered low in areas with centralized water treatment. If this is not available, then techniques such as boiling, solar radiation, UV radiation, chlorine additives are all considered effective strategies.

POOLS

COVID-19 has a fragile lipid outer membrane, and is therefore highly susceptible to soaps and oxidants, such as chlorine. According to the Centre for Disease Control, there is no evidence that COVID-19 can be spread to humans through the use of pools, hot tubs or spas. Proper operation maintenance, disinfection with chlorine or bromine of pools should inactivate the virus.(CDC 2020). A related coronavirus which caused the SARS epidemic in 2003, was found to be inactivated by UV treatment and disinfectors.

OPEN WATER

COVID-19 is able to remain viable, possibly infectious in freshwater sources such as lakes and rivers, particularly if raw sewage directly enters these waters. Given the dilution affect, the risk is assessed to be low. (Water Research Foundation)

At this point there has been no confirmation that the virus is viable in seawater. The general consensus is that the risk of transmission is low. There has been speculation regarding potential infectivity of aerosolized sea spray. These

concerns were first raised in 2009 following the 2003 SARS-CoV outbreak. Further investigation of this theory has been initiated at the Scripps Institution of Oceanography.

SEWER

COVID-19 has been detected in the feces of patients, however the duration of viral shedding, and whether this virus is infectious and poses a risk for others, is not yet known. Thus far, expert opinion believes the viral RNA that is found in feces is not intact and thereby not infectious.

"At this time, the risk of transmission of the virus that causes COVID-19 through sewerage systems is thought to be low. Although transmission of the virus that causes COVID-19 through sewage may be possible, there is no evidence to date that this has occurred. SARS, a similar coronavirus, has been detected in untreated sewage for up to 14 days. In the 2003 SARS outbreak, there was documented transmission associated with sewage aerosols. The available information suggests that standard municipal wastewater system chlorination practices may be sufficient to inactivate coronaviruses, as long as utilities monitor free available chlorine during treatment to ensure it has not been depleted."(CDC 2020)

Given the potential for fecal-oral transmission, research will be required to determine the viability and infectivity in water sources. It is anticipated that this research will guide best practices and wastewater management. It would be advisable for the OW swimming community to refer to local public health authorities for advice on water quality safety issues.

WELL BEING

Information should be rational and come from official sources. Avoid over information, and try to keep a positive attitude. Work on schedules similar to those you had before pandemic, so you can rely on coping mechanisms. Along with activities schedule, reaching good sleep habits is very important, and most athletes have seen this affected due to schedule modifications and anxiety. Social media exposure should be also focus on indoor activities video sharing of teammates along with interactions that could help decreasing anxiety, and have greater flexibility with regard to how you're experiencing the world in order

to be able to cope. IOC's Athlete 365 is a useful platform available and its use is recommended among aquatics sports and others.

REDUCING THE RISK

The UANA Sport Medicine Committee would like to reinforce the global medical community messaging on how best to protect yourself and others.

- Avoid being exposed to COVID-19 by social distancing (minimum 2 meters). Stay at home as much as possible.
- Clean/wash your hands frequently with soap and water for at least 20 seconds, or use a hand sanitizer (>60% alcohol)
- Avoid touching your eyes, nose, and mouth.
- Athletes and staff, please respect social distancing during training, and clean gym equipment thoroughly with a disinfectant post exercise. Remember that COVID-19 can last between two hours and nine days on surfaces depending on a number of factors. Simple cleaning measures can inactivate the virus.
- If you are sick and suspect COVID-19, isolate for a period of 14 days.
- Consider the use of a face mask in public places if social distancing cannot be guaranteed. Masking has the potential benefit of protecting others.
- Athletes are encouraged to act responsibly and promote this behavior on social media with their peers.

RESOURCES

- https://www.cdc.gov/coronavirus/2019-ncov/php/water.html
- https://www.fina.org/content/covid-19-advice-fina-family
- https://www.olympic.org/athlete365/

- https://www.who.int/publications-detail/water-sanitation-hygiene-and-waste-management-for-covid-19

- https://www.surfrider.org/coastal-blog/entry/the-beach-and-covid-19-understanding-the-risks

- https://www.sciencedirect.com/science/article/pii/S0043135409000785?via%3Dihub