

Accelerated Hydrogen Peroxide® (AHP®), a Proven History of Preventing Transmission of Coronaviruses

SITUATION

In late 2019, an outbreak of respiratory illness in Wuhan, China was identified. It is now understood that this outbreak is associated with a Novel Coronavirus that is now identified as COVID-19. Coronaviruses are of significant concern owing to the fact they are zoonotic in nature, meaning they can infect humans and animals¹. Prior to the identification of COVID-19, there were six (6) strains of Coronavirus capable of infecting humans with only two (2) strains capable of causing severe disease; severe acute respiratory syndrome (SARS-CoV) and Middle East respiratory syndrome (MERS-CoV)¹.

BACKGROUND

In 2003, when SARS-CoV arrived in Canada, infection prevention experts released training bulletins to support in combatting the deadly respiratory disease. Originally, as an unidentified virus, infection prevention experts looked to Health Canada for guidance with respect to supporting evidence needed to make recommendations for cleaning and disinfection. In cases of emerging viral pathogens, Health Canada's Broad Spectrum Virucide claim² requirement may be used to determine expected efficacy of a disinfectant against the virus. This guidance is based on a hierarchy of susceptibility of viruses to disinfectants, recognizing that a product with efficacy against non-enveloped viruses will also be effective against enveloped viruses, which are much more readily inactivated.

Accelerated Hydrogen Peroxide® (AHP®) became the recommended disinfectant of choice, resulting in the distribution of a Training Bulletin³ from the Ontario Ministry of Health and Long-Term Care mandating the use of AHP® by all EMAs and Paramedics. Key points in the decision to utilize AHP® included:

- Rapid contact time with the ability to destroy enveloped viruses and vegetative bacteria, including superbugs
- Effectiveness at cleaning and removing *Clostridium difficile* spores off surfaces
- Safe for contact with skin and eyes and non-toxic if ingested
- No need to double glove when handling AHP®
- Safe to use on all hard surfaces and fabrics

While the original Training Bulletin referenced the use of AHP® for emergency vehicles, AHP® became the only disinfectant used by healthcare providers across Canada.

Global travel means new or deadly diseases are mere hours away from arriving anywhere around the world. With this in mind, the importance of having strategies in place for safe, effective cleaning and disinfection is greater than ever.

ENVIRONMENTAL DISINFECTION

Coronaviruses are known to be able to persist on environmental surfaces for up to 9 days⁴. In a recently published study, AHP® was included among the disinfectants that have been shown to have proven efficacy against various strains of Coronavirus. In fact, the AHP® technology carries efficacy claims against five (5) different strains of Coronavirus including MERS-CoV.

When it comes to managing the transmission of Coronavirus, thoroughly cleaning and disinfecting environmental surfaces with a safe and effective disinfectant that carries a short contact time, like AHP®, will support in ensuring facilities have a cleaning and disinfection program that will support their infection prevention needs.

IMPLICATONS FOR AHP[®]

As seen with Coronaviruses, viral diseases previously known to infect only animals will continue to evolve and broaden their host range to humans. From our experiences with SARS-CoV, MERS-CoV and now COVID-19 we know that infection prevention and control is not just a local issue, and that routine cleaning and disinfection is becoming increasingly important as pathogens continue to cross borders.

Infection prevention requires a daily focus, both in healthcare environments as well as a wide variety of other professional settings. In addition to reducing the burden of outbreaks and hospital-acquired infections^{5,6}, utilizing an effective disinfectant such as AHP[®] on a daily basis can act as the first line of defense in preventing the spread of disease, while ensuring that public safety is prioritized.

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