Coronavirus (CoV) and Xenon Pulsed UV

Wuhan Coronavirus (CoV)

The present strain of Coronavirus (CoV) has been named 2019-nCoV and is an enveloped human respiratory viral pathogen. It is closely related to past strains of CoV such as SARS-CoV (Severe Acute Respiratory Syndrome) and MERS-CoV (Middle East Respiratory Syndrome). It is also closely related in size, shape and structure to the common influenza A virus.

Solaris Pulsed UV and Effect on Virus

There is a great deal of research to support the effectiveness of pulsed xenon UV light on enveloped viruses like the novel Coronavirus, SARS, MERS and Influenza A. In peer reviewed testing Lin et. al. 2017(1) evaluated Solaris Pulsed UV light against virus surrogate to study the effect of pulsed xenon UV on communicable enveloped human respiratory pathogens. Pulsed UV exposure of 10 to 30 seconds resulted in a 2.0 log reduction in viable recovered virus. It was found that as little as 10 seconds of pulsed UV exposure resulted in significant reduction of virus viability.

Recommendation for CoV surface reduction with Solaris

Solaris Lytbot cycles of 3-5 minutes produce pulsed xenon UV light at levels that will significantly reduce enveloped human respiratory viral pathogen like CoV, adding a reliable line of defense against unknown or undiagnosed cases of CoV infection without adjustment to protocols. During an outbreak or suspected viral outbreak Solaris should be used in as many spaces as possible to ensure reduction of microbiological surface contamination.

Normal Solaris room treatment protocols and cycles of 3-5 minutes are designed to destroy all classes of microorganism from spores to viruses. In the hierarchy of resistance of microorganisms to disinfectants and sterilants enveloped viruses are most susceptible followed by vegetative bacteria, with spores like *c.difficile* being the most resistant.(2)

(1) Lin., WE. Et. al. Pulsed ultraviolet light decontamination of virus-laden airstreams. Aerosol Science and Technology. Volume 51, 2017 – Issue 5. pg 554-563
(2) Presentation: What's New: Strategies in Healthcare Environmental Infection Prevention, 2017. William A. Rutala, Ph.D., M.P.H

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Solaris Disinfection Inc.
www.solarislyt.com
1-855-4-LYTBOT
1-855-459-8268

An Innovative and Effective Tool for Infection Prevention

3 or 5 minute Cycles
Simple cycles are 15-40% faster than competitors

Rapid Room Treatment
Ex. Single patient room – 3 cycles = 13 min. run time
One x 3 min restroom cycle, two x 5 min main room

Maxpulse Technology
High pulsed UV flash rate = increased disinfection efficacy against pathogens

Simplified Settings
Rapid flashrate means reliable, high efficacy disinfection without any changes to settings

Targeted Disinfection
Engineered reflector amplifies energy to high touch surfaces where 80-90% of pathogen load hiding

No Wasted Light
Parabolic reflector focuses more disinfectant light on high-tough surfaces where more light needed. We are still hitting the floor and ceiling, but focus extra attention where it is needed most

Wireless Sensors
Wireless motion sensor and remote start stands

Ease of Operations
With no wires to worry about stands are quickly deployed. Remote start stand ensures operator can trigger unit when room secure and ready for treatment

Robust Design
Designed and built with reality of hospital operations in mind

Tough, Rotamold Body
Head and bulb are completely contained during storage and transport. Unit is built to last in the tough conditions posed by high-pace EVS operations.

Validated and Reliable Efficacy

Thorough third-party testing confirms Solaris Lytbot efficacy validation among best on the market.

System	Pathogen	Distance	Cycle Time	Percent Reduction
Solaris Lytbot	MRSA	6 ft	3 min	100.00%
Solaris Lytbot	C.diff	5 ft	5 min	99.90%

People, Process, Technology

There is no silver-bullet when it comes to infection prevention, but a comprehensive program which combines manual cleaning and disinfecting with a validated UV disinfection system has consistently been shown to reduce infection rates

Solaris presents a cost effective, best-in-class pulsed UV solution for use in automated disinfection protocols

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