BonAir Response:

Strategic White Paper

COVID-19 EMERGENCY PREPAREDNESS & DISASTER RESPONSE

Air Layered Offense and Defense Strategy for Hospital and Public Center Environments MD Risk Assessment for Puerto Rico based on the STRATEGIC WHITE PAPER, V2 dated 26 MARCH 2020, by the United States of America Air Force

07.07.2020

MT consulting

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Table of Contents

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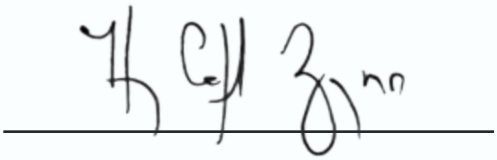

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Overview

The number of COVID-19 infections in the US continues to climb with over three million cases and the number of deaths now reached over 134,000. Still, no specific treatment for Coronavirus exists right now. As the US reopened the economy, in addition to Memorial Day weekend, Father's Day, 4th of July celebrations and mass protests over police brutality and racism, cases trend climbed in more than half states with an increase in hospitalizations. Dr. Fauci from the National Institute of Allergy and Infectious Diseases declares that a second wave of coronavirus might hit the US in the fall/winter timeframe if the virus is not approached the proper way. Social distancing and state lock downs have had an impact in slowing down the spread of the virus allowing additional time to find a successful treatment and eventually a vaccine. In addition, it has provided time to gather or produce the necessary protective equipment and technologies like ventilators and air purification systems.

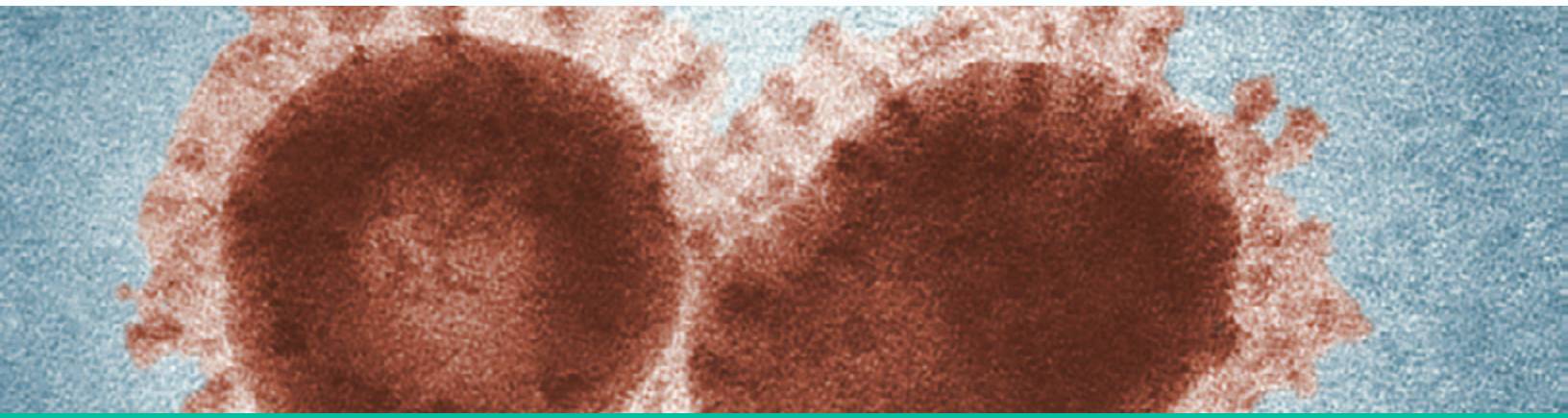
As new discoveries are made every day of how the virus spreads and the impact on the body of the old as well as the young, and an effective treatment and vaccine is found, it is imperative that we minimize the spread of the virus. Since the Nation cannot face another economy recession, it is crucial that we approach the response with a disaster mindset as stated in the **COVID-19 EMERGENCY PREPAREDNESS & DISASTER RESPOSE, STRATEGIC WHITE PAPER, V2 26 MARCH 2020, by the US Air Force**.

The four key areas mentioned in the White Paper has been mostly implemented at the state level. However we must adjust to the daily breakthroughs on virus discoveries particularly in the key areas of Operational Management & Triage and Hospital Operations. Recent studies show that particles of the virus released when talking can remain in the air for 8 to 14 minutes. Therefore, focus should be on air purification.

The following outline describes an air quality and management paradigm applicable to any high-risk industry such as hospitals, clinics, food processing plants, and medical materiel warehousing.

Air Layered Offense and Defense Strategy For A Hospital/Medical Center Environment:

1. Operational Management and Triage: (This represents only an Air Layered Strategy).
2. Establish constant repetitive triage during all phases of the response.
3. Clearly identify and differentiate clinical and managerial personnel.
4. Clearly identify who performs assessment and how the assessment is performed.
5. Identify the areas and personnel that needs treatment.
6. Assess the area and define treatment.
7. Home.
8. Hospital Rooms.
9. Hotel Rooms (overflow).
10. Tents (overflow).
11. Community building (overflow).



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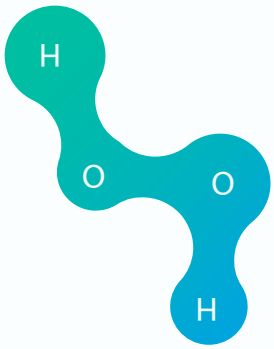
Stabilize and sanitize the environment:

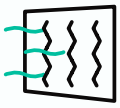
1. If possible, create an air lock chamber going into the room. Describe the process of how this will be performed to prevent air from spreading to other areas. This is especially important in positive pressured rooms.
2. Activated carbon filter, prefilter, HEPA filtration within an Air Scrubber giving 16 to 20 air exchanges an hour.
3. Prefer to attach the air scrubber to the exhaust register to make sure the air is clean before entering a room and attach the purification to the scrubber exhaust port directing air towards patient. This will ensure patient has the best air quality and prevent patient from a potential reinfection. This can be done through a hood, tent, or natural air flow.
4. After patient recovers, clean room and retest.
5. Stabilization of tests and community building with more beds and limited space between patients.
6. If available and space limitations allow, place partitions between patients.
7. Provide self-regulating production of hydrogen peroxide gas to prevent the spreading and cross contamination.
8. If patients are in enclosed area within the building, such as an individual tent, all air entering and exhausting will be HEPA filtered with self-regulating Hydrogen peroxide gas at .01 to .02 ppm. This will stop all cross contamination and protect personnel.



Technology Limitations

The following are some of the limitations of the current technologies and solutions:

1. Air Filtration, Electronic Air Filters/ Plasma.



   - Passive-relying on pathogens to travel to the filter.
   - Generally, fails to kill smaller particulates.
   - Surfaces are not decontaminated.
   - Recurring costs with filter replacement and/or maintenance.
   - No HVAC decontamination feature.
2. Hydrogen Peroxide Misting Systems, Chemical Misting Systems, and Ozone Systems.

   - Overly aggressive.
   - Not safe in areas occupied by humans or other life forms.
   - Not continuous.
   - No HVAC decontamination feature.
   - Relies on human programming and deployment.
   - Labor costs.
   - Recurring costs of chemicals.
   - Ozone does not self-regulate and is banned from use in many locations.
3. Ionic Technologies.

   - Does not kill pathogens.
   - No HVAC decontamination feature.
   - Surfaces are not decontaminated.
   - Air is not decontaminated.
4. Ultraviolet Lights.

   - Limited effect on moving air.
   - Only line of sight protection.
   - Distances decrease effectiveness.
   - May cause skin and eye damage upon extended exposure.

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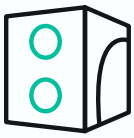
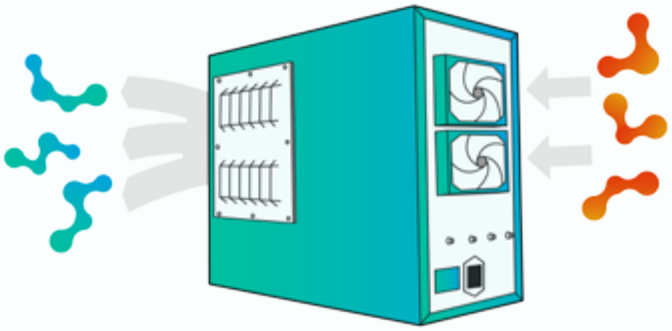
5. Chemical Disinfectants (Janitorial)

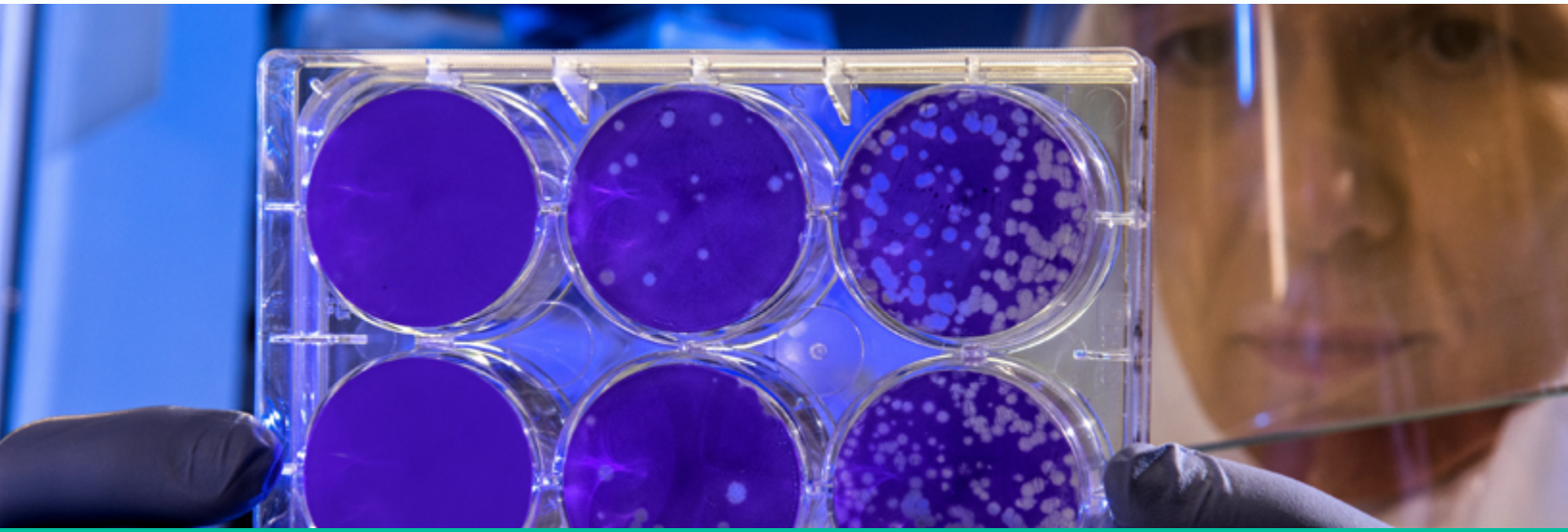
- Not continuous.
- No HVAC decontamination feature.
- Subject to human error.
- Chemical dilution issues.
- Protocol compliance issues.
- Labor costs.
- Ongoing costs of chemicals and application supplies.

6. Key features of Low Level (H2O2) Hydrogen Peroxide Gas Technology



- Preemptively seeks and destroys infectious microbes, scientifically tested to kill specific virus and bacteria.
- H2O2 coverage of air and surfaces auto regulated for not exceeding OSHA limits.
- Safe – produces .02 ppm H2O2 molecules which is 1/50th of OSHA safe limit.
- Kills even the smallest known micro-organic pathogens (viruses, bacteria, mold, volatile organic compounds “VOC”).
- Kills germs in the air and on every surface
- Kills fungi/mold.
- Through oxidation, microbial pathogens are decomposed and rendered harmless.
- Filtrates everywhere air can travel.
- Odorless.
- Eliminates odors.
- Easily installed into HVAC systems.
- Low maintenance.
- Does not produce ozone.
- Works as a continuous infection microbial reduction purification device documented in the COVID-19 Emergency Preparedness & Disaster Response, Strategic White Paper, V2 26 March 2020, by the United States Air Force.





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Key Statements

Low-Level Hydrogen Peroxide (H2O2) Gas Technology for the Continuous Control of Infections Key Statements:

1. Directly fights viruses, including the coronavirus COVID-19, and bacteria in the air and on all surfaces.
2. Advanced air purification emerging technology emits hydrogen peroxide H2O2 in a gaseous state and safely eliminates pathogens.
3. The US Air Force recommends low emission H2O2 in gas for indoor facilities. It was highlighted with operational priority for use in hospitals to reduce the spread of coronavirus COVID-19, inside the facilities.
4. It is also safe for animals.
5. This technology works by releasing self-regulating volumes of molecules of H2O2 (.02 ppm "parts per million"), up to 50 times less than the level approved by the Federal Environmental Protection Agency (EPA).
    - Low level hydrogen peroxide gas destroys bacteria, fungi, and viruses, including COVID 19, throughout the entire environment, including all surfaces, spaces, and materials.
6. Until another emerging technology is developed against coronavirus COVID-19, low level hydrogen peroxide gas is a safe alternative to continuously protect healthcare professionals, employees, and patients.
7. The effectivity of low level hydrogen peroxide gas is supported by clinical evidence in the protection of pregnant women, neonates, children, elderly adults, and pets from pathogens. Among those known pathogens are:
    - HIV, Hepatitis, Influenza A H1N1, Influenza B, Acinetobacter, Streptococcus, MRSA, Escherichia Coli, Klebsiella, and Salmonella, among others.

Note: A patent for this technology was registered in 2010 by Mr. Alton Holt, Texas, USA. Also, updates have been registered in the United States Patent and Trademark Office on February 8, 2018.