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Reference: Eagle X Pro and Ionization in Geisinger Medical Center

For years, Geisinger has trialed various technologies to improve air quality and mitigate hospital acquired infections. These technologies include UV lighting, improved filtration, hydrogen peroxide room sterilization and corona ionization.

In our minds, corona ionization had the greatest potential since it had various benefits and essentially always has a residual in the air to achieve low level disinfection. We experimented with various air ionization technologies and found them to be extremely effective in reducing organisms on surfaces (~97%). Some of these technologies were localized units that relied on natural air circulation and others were duct mounted devices that only served limited areas. We have selected to standardize on Eagle X Pro Products because the units can be mounted at the air handler and require no scheduled maintenance because of their unique cleaning system. They also have much higher rated ion generation than other products on the market so can treat larger spaces. Currently, we are treating all of our operating rooms, emergency departments, and intensive care units with Eagle X Pro. We purchased an ion meter and are able to measure significant and effective levels of ions in the spaces we are treating.

We believe there are multiple health benefits to ionization. The ionized molecules are attracted to air contaminants and when they combine, the resultant particle is larger, effectively improving air filtration. When ionized oxygen (O<sub>2</sub>) reacts with humidity (vaporized water molecules H<sub>2</sub>O) low levels of hydrogen peroxide are formed, which when attaching to airborne viruses and bacteria, disables them. This same process also makes particles heavier, dropping them from suspension in the air more quickly, another means of filtration.

Especially with the concerns during the COVID 19 Pandemic, our expectation is that our application of this technology will reduce the possibility of airborne transmission of viral, bacterial and other respiratory issues. We view air ionization to be an important aspect of creating healing indoor environments for patient care utilizing the Eagle X Pro equipment.



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