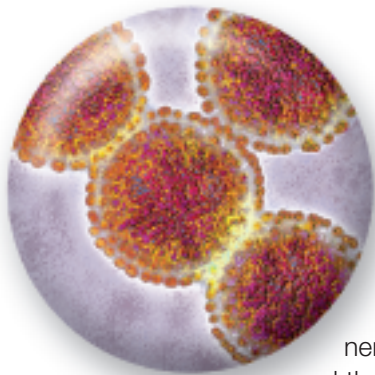


Avian Flu Preparedness



Avian Influenza (“bird flu”) preparedness has been a prominent news topic for many months, and the possibility of an H5N1 viral

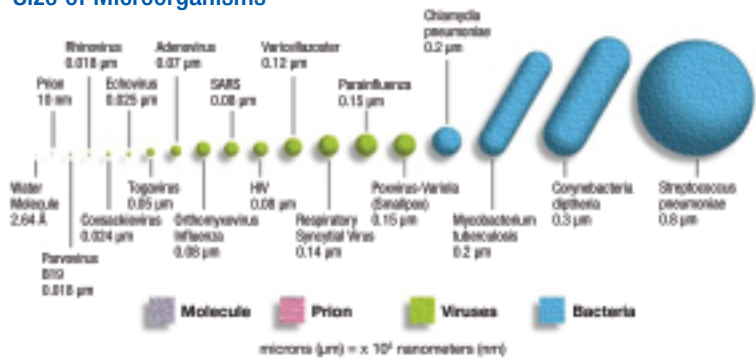
mutation that will result in human-to-human transmission capability continues to cause grave concern to healthcare professionals. As they develop plans to deal with a potential pandemic, the question has been posed regarding whether or not Pall Breathing System Filters could potentially reduce the spread of H5N1 virus from an infected patient who is on a ventilator into his/her breathing circuit, the ventilator itself, and then into the ambient air of the hospital.

Respiratory tract pathogens such as H5N1 are contained in saliva and bronchial secretions and may be transmitted by coughing or airway suctioning. These activities generate sprays consisting of viral-laden droplets of various sizes. During passage through dry air, the smaller-sized droplets partially dry out and form even smaller droplet nuclei. Droplet nuclei may still contain virus particles and may remain suspended in air for prolonged periods of time. Therefore, as is the case with many other infectious agents that can reside on droplet nuclei, H5N1 virus can be transferred from patient to unprotected equipment such as breathing circuits and ventilators, and subsequently to the healthcare environment.



Pall Corporation has conducted extensive validation work to show that Pall Breathing System Filters act as barriers to non-pathogenic bacterial and viral surrogate organisms. Pall filters have been evaluated with bacterial (*Brevundimonas diminuta*¹) and viral (MS-2 bacteriophage¹) organisms that represent the filtration gold standard to test exclusion on the basis of size. These studies have shown that Pall Breathing System Filters present an effective barrier to these contaminated liquids, with airborne bacterial and viral removal efficiencies of at least 99.999%. It should be noted that MS-2 bacteriophage has an average viral particle size of 20-30 nanometers, while the untested H5N1 virus has an average viral particle size of 100 nanometers.

Size of Microorganisms



For additional information on pandemic preparedness and breathing system filters, please contact your Pall Medical Sales Representative, Pall Medical Customer Service at 1-866-347-3428, or the following website:

www.pall.com/pdf/Pandemic_Preparedness_Slides_11806.pdf