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Crane House Molly Millars Lane Wokingham Berkshire RG41 2RZ
T: +44 (0)118 9656 300 F: +44 (0)118 9656 356
www.intersurgical.com | info@intersurgical.com

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To whom it may concern

Ebola Virus Disease (EVD) - Intersurgical Breathing Filters

The Ebola Virus Disease (EVD) outbreak in West Africa was first reported in March 2014, and has rapidly become the deadliest occurrence of the disease since its discovery in 1976.

Up to 14 October, 4,555 people had been reported as having died from the disease in five countries: Liberia, Guinea, Sierra Leone, Nigeria and the United States. The total number of reported cases is in excess of 9,216.

The World Health Organisation (WHO) believes these figures are underestimates and fears that there could be as many as 20,000 cases by November if increased efforts to tackle the outbreak are not prioritised

EVD is a viral illness of which the initial symptoms can include a sudden fever, intense weakness, muscle pain and a sore throat. These initial symptoms develop into vomiting, diarrhoea, internal and external bleeding.

EVD spreads between humans by direct contact with infected blood, bodily fluids or organs, or indirectly through contact with contaminated environments.

There have been 20 reported cases of Ebola being imported by someone travelling from a country of widespread transmission.

In October, a nurse in Spain became the first person to contract the deadly virus outside of West Africa, after treating two Spanish missionaries who had eventually died of Ebola in Madrid.

In response to the Ebola Virus Disease outbreak in West Africa and the associated risk factors, the question has been raised concerning the suitability of Intersurgical breathing filters to provide an effective barrier against the passage of EVD in respiratory systems i.e. Intersurgical breathing filters against the Ebola Virus Disease (EVD).

The spread of Ebola between people occurs only by direct contact with the blood or body fluids of a person after symptoms have developed [1]. Body fluids that may contain Ebola viruses include saliva, mucus, vomit, faeces, sweat, tears, breast milk, urine, and semen[2]. Entry points include the nose, mouth, eyes, or open wounds, cuts and abrasions[3].

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In general, Ebola virions are 80 nm in width, but vary in length. In general, the median particle length of Ebola viruses ranges from 974 to 1,086 nm [4].

The range of Intersurgical breathing filters has been independently tested to be highly efficient at preventing the passage of a variety of viral species of varying particle sizes greater than 23nm2 including *MS-2 coliphage2, Phi-x174 bacteriophage3* and *Hepatitis C4*. The challenge presented in the viral test protocol (φ174 bacteriophage, 0.027 µm) will be at least as severe as that posed by the Ebola virus (width 80nm) because it is a smaller particle.

As such, it can be concluded that Intersurgical's range of breathing filters will provide at least the same level of quoted efficiency as reported in the independent microbiology tests if it were to be challenged with the Ebola virus. Copies of these test protocols for the individual products are available upon request.

Sean Duggan

Sean Duggan
Filter Product Manager
Intersurgical

e. sdu@intersurgical.co.uk
t. +44(0)1189 656300
w. www.intersurgical.com

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