

A healthy amount of critical evaluation of any air purifier performance claims is very important and justified, in view of the fact that the vast majority household air cleaner brands shamelessly exaggerate their capabilities (especially with regard to virus removal), without providing relevant independent scientific evidence for their claims. The fact is that Airmid Healthgroup is an accredited test lab (<https://www.inab.ie/FileUpload/Testing/Airmid-Health-Group-Limited-284T-Cert.pdf>) and also that H1N1 is commonly used as surrogate for efficiency tests evaluating the suitability of filters in the fight against the coronavirus.

In any case, performing filter tests with highly infectious agents is in fact forbidden for biosafety reasons. In most countries the handling of known infectious agents is reserved to special medical research facilities that are equipped with the appropriate biohazard control measures, to protect the public from the spread of infectious diseases. Such facilities are not equipped to perform professional filter/respirator efficiency tests.

So, testing a filter's removal efficiency for a specific type of infectious microorganism is not necessary. As long as the size of a microorganism is known, a professional aerosol test lab can determine a mask's or filter's removal efficiency for particles of that specific size. The accepted scientific principle in connection with mechanical filters like hospital-grade HEPA filters (which remove aerosols physically), is that if the filter can remove airborne particles (e.g. H1N1 viruses) of 0.08 - 0.12 μm in size with 99.9% efficiency, then the same filter will remove other particles which are in the same size range (e.g. SARS-CoV-2 viruses), with the same efficiency. Here are two links that show that coronaviruses and swine flu viruses in fact cover the very same size range of 0.8 - 0.12 μm ([Size of H1N1](#); [Size of SARS-CoV-2](#)).

For that reason, virus surrogates in the same size range (e.g. H1N1) are accepted by research scientists around the world to establish the effectiveness of air cleaners in removing aerosolised coronaviruses from the air. (Note: The EN1822 test which we had completed on the HealthPro's HyperHEPA filter goes even one step further and tests the filters "worst case" efficiency for those particles which are most difficult to filter. Therefore, IQAir is able to state that the HyperHEPA filter used in the **HealthPro air purifiers have an absolute minimum efficiency of 99.5% irrespective of particle size or kind (including the coronavirus)**).

Evidence of Actual Use of IQAir in Hospitals for Covid-19 Infection Control

Hong Kong

In 2020, several hundred additional IQAir units have been ordered by HK hospitals to create additional isolation rooms in hospitals and healthcare centres. In Hong Kong alone, IQAir HealthPro systems are being used in well over 100 hospitals, clinics and health centres ever since the first SARS-crisis in 2003. Several hundred IQAir HealthPro systems were supplied to the HKHA over 16 years ago. These have been meticulously maintained and are still providing airborne infection control services today, as we know through the periodic filter replacements that are made on these units.

Although we are not allowed to publish a list of Hong Kong hospital names (... the HK Hospital Authority prohibits supplier's to mention hospital names for marketing purposes...), we can provide you with the following information and news footage about IQAir installations in several hospitals that show that IQAir systems are being used in different countries and in a wide variety of infection control applications to help in the fight against Covid-19:

Portugal

Many healthcare institutions have been (and still are) converting normal patient wards into isolation rooms to protect staff, because they lack single isolation rooms. Here is a video that shows a hospital ward in Portugal ([IQAir in Hospital de Santo António, Porto](#)).

South Korea

Single isolation rooms with negative pressure would be the ideal way to minimise the risk of spread to healthcare personnel, but such rooms are of course rare. So IQAir units with ducting attachments are often used by hospitals to convert normal patient rooms into negative pressure airborne infection isolation rooms (AIIR). Here is some CCTV-4 Chinese News [Video](#) footage showing how IQAir units are being deployed in South Korea to create negative pressure isolation rooms (IQAir is shown at 1.39 min).

In Korea IQAir units are also used to protect staff performing Covid-19 tests on patients ([video](#)).

United Kingdom

Here is a list of some of the hospitals in the UK that use IQAir high performance filtration to combat COVID-19:

Royal Berkshire NHS Foundation Trust, Reading, UK
Barts Health NHS Trust (The Royal London Hospital), London, UK
Southampton General Hospital, Hampshire, UK
United Lincolnshire Hospitals NHS Trust, Lincoln, UK
York Teaching Hospitals NHS Foundation Trust, York, UK
Mid Yorkshire Hospitals NHS Trust, Wakefield, UK
ASPH (Ashford and St. Peter's Hospitals) NHS Foundation Trust, Surrey, UK
County Durham & Darlington NHS Foundation Trust, Darlington, UK
Dewsbury and District Hospital, West Yorkshire, UK
Cardiff & Vale University Health Board, Cardiff, Wales, UK