



## Assisted Reproduction in the COVID-19 Era

**CASE STUDY**  
Masfiv Reproductive  
Medicine Centre,  
Spain

**How a new reproductive medicine centre safely maintained essential care services with the help of air dis-infection technology**

### PROBLEM



VIRUS

When Masfiv, a newly built medical centre specializing in reproductive medicine and gynaecological health in Donostia, Spain, opened its doors to the public in January 2020, little did they know they would soon be faced with a global health emergency. The new assisted reproduction centre was purpose-built from scratch to become a 500 m<sup>2</sup>, state-of-the-art establishment. The “facility of dreams” was equipped with laboratories, an operating room, and the most innovative medical technology solutions.

However, as COVID-19 rapidly spread across the globe, healthcare facilities around the world had to adapt and prepare for a pandemic. Stringent infection prevention protocols were implemented and reinforced, and non-essential procedures were temporarily postponed to control the spread of the virus.

For Masfiv, this meant maintaining minimal essential reproductive care services while containing the spread of coronavirus. In line with public health guidelines, Masfiv established a range of COVID-19 protocols. One of these protocols; 24/7 air dis-infection technology by Novaerus.

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### SOLUTION

From the design phase of the new centre, Masfiv understood the importance of clean, disinfected air in IVF settings. Even when facilities follow strict laboratory practices, airborne pathogens can negatively affect embryonic development. Indoor contaminants such as VOCs and microbes, and outside air pollution from road work, traffic, construction and insecticides, can all lead to fluctuations in IVF success. Pollutants can settle on surfaces and dissolve into the aqueous solutions and oil overlays where fragile embryos are cultured. Because of this, Masfiv deployed a Novaerus Defend 1050 within their facility, the company's most powerful air dis-infection device.

The Defend 1050 is designed for continuous cleaning of the air in large populated spaces and rapid remediation of indoor air in situations with a high risk of infection. The portable device combines Novaerus patented ultra-low energy plasma technology with a multi-stage high-performance filtration system from Camfil®. In IVF settings, this allows for the safe and gentle reduction of airborne viruses, bacteria, mould spores, VOCs, particulate matter and odours.

In the COVID-19 era, Novaerus provides an additional layer of protection against the spread of airborne viruses. The Defend 1050 has been tested and shown to reduce airborne MS2 bacteriophage, a surrogate for SARS-CoV-2, the virus causing COVID-19, by 99.99% in just 15 minutes.



*“IVF settings demand a highly hygienic environment, one of the most vital components in our centre is the Defend 1050 from Novaerus”*

### RESULTS

There is mounting research to suggest that clean, disinfected air plays a vital role in preventing the spread of COVID-19. Recently, the World Health Organization (WHO) stated that short-range aerosol transmission, particularly in specific indoor locations, such as crowded and inadequately ventilated spaces over a prolonged period, with infected persons, cannot be ruled out.

Throughout the crisis, the Defend 1050 was moved throughout the clinic to improve the air quality and help keep it virus-free. By establishing comprehensive infection prevention protocols, Masfiv ensured that their centre could safely maintain essential health services. As the world continues to fight the spread of COVID-19, Masfiv will continue to deploy the Defend 1050 to protect the air.

Novaerus air dis-infection technology has been deployed in hundreds of hospitals around the world to help them reinforce their virus protection protocols. Masfiv are pioneers in the use of this technology in assisted reproduction facilities in Spain.