NHS Royal Free Hospital Clinical Trial, UK

Novaeurus wins prestigious Smart Solutions for HAIs award from the NHS in 2010. This trial was conducted in the Royal Free Hospital in London, by the UK Government Department of Health.
- Royal Free Hospital in London has 900 beds and treats 700,000 patients per year
- 16 week clinical trial - 8,500 air and surface samples - 21 locations around the hospital

Key Results:
- 97% reduction in MRSA
- 75% reduction in surface bacteria counts

Fresenius Dialysis Trial, Portugal

Novaeurus units installed in Fresenius 30 station dialysis centre over 6 weeks period.

Results:
- 87% reduction in airborne bacteria
- 93% reduction in VOCs
- Up to 67% reduction in moulds

These changes were achieved within 2 days after the start of the trial and subsequently maintained.

Manchester Manor, Florida, USA

The study analysed the impact of Novaeurus technology on the rates of Clostridium Difficile and respiratory infections in the 120 bed skilled nursing facility over an 11 month period.

Results:
- C. Diff Infections Down 50%
- Respiratory Infections Down 42.86%

Uzsoki Hospital, Budapest, Hungary

Trial carried out in an 870 bed leading teaching hospital in Budapest with accredited air sampling and analysis done by Wessling Laboratories Hungary.

Results:
- Significant reduction in all classes of airborne bacteria and fungi/moulds count was measured over the period of the test and subsequently maintained.
- 82% drop in CFU rates (T0 / T4 average)
- Average reduction bacteria count: 52%
- Average reduction fungi count: 93%
- The air quality now meets the Swiss Class III standard (500 CFU/m3 for general wards)

Rigshospitalet, Copenhagen, Denmark

A nine month study carried out at Rigshospitalet, a highly specialized hospital with 1100 beds. Testing by the Laboratory of Infection Hygiene and the Department of Clinical Microbiology.

Results:
- Significant reduction in bacterial loads on high surfaces and windows sills.
- In control section with no units, the number of infections of all kinds increased by 35% from 2013 to 2014.
  - The number of overall infections fell 23% in the section with Novaeurus units.
  - 58% point swing.
Novaerus is the first plasma system for airborne infection control. It uses a low energy patented plasma that is stable, reproducible, containable, and highly destructive to the microorganisms entering its field.

The plasma requires no maintenance and works 24 hours a day to eradicate airborne viruses, bacteria, mould, allergens and odours, essentially cleaning the air and creating a healthier environment.

The patented plasma technology is effective against even the most harmful bacteria and pathogens including MRSA, C.Diff, Norovirus and Influenza. By reducing the presence of these contaminants in the air, a healthcare facility can stand to significantly lower the risk of infectious outbreaks.

In-vitro results and field studies

Along with the continued testing within our own laboratories the Novaerus plasma technology has been independently trialled and proven to effectively destroy airborne bacteria, viruses, pathogens, odours and VOCs at an extremely high kill rate in a matter of milliseconds. The technology has been tested by a number of third party laboratories, including the NASA Ames Research laboratory in the US and Microsearch Laboratories in the UK.

The effects of the technology have also been monitored in many healthcare facilities across Europe and the US, showing major reductions in infectious outbreaks and bacteria surface counts.

Novaerus Plasma Treatment
Pathogen destruction in 2 milliseconds. Species are broken down into small, safe molecules.

“The Novaerus Plasma technology is rapid and the inactivation occurs immediately. Concrete evidence of the effect of plasma on airborne bacteria; strong chemical and structural changes are observed.”
Dr Ram Prasad Gandhiraman, Research Scientist, NASA