

# Focused laminar flow for ophthalmology

The focused laminar flow acts directly on the surgical site and instrument table without being impeded, thus reducing by up to 95% the bacterial load on the surgical site and instrument table



Operio is a focused laminar flow unit positioned in the perioperative area directly on the surgical wound, without introducing obstacles into the zone. This technology continuously produces sterile air, removing airborne particles and microorganisms from the critical zone of the surgical site and instruments.



Operio focused laminar flow is the ideal solution for ophthalmology and intravitreal injections. The flow does not pass obstacles such as the surgical microscope and the head-neck area of the operating surgeon maintaining an extreme high degree of asepsis. Intravitreal injections can also be prepared outside the normal operating room in combination with operio. Operio creates a higher degree of asepsis than any conventional operating room for two reasons:

1. The instruments can already be prepared in the protection zone of operio
2. The flow is not hindered by any obstacles such as heads of operating personal, O.R. lights etc..

The focused laminar air flow system provides a flow of ultra-clean air for operating rooms at a fraction of the cost of conventional, ceiling-mounted units, enabling operating rooms to be upgraded and meet the ISO 5 standards.

# Up to 95 % reduction of contamination



**Operio:** the air is filtered through Hepa filters free of microorganisms and then directed immediately on to the surgical instruments and surgical site. It is only then distributed throughout the operating theatre. This protects the critical area of the operating theatre, i.e. the instruments and the surgical site. With this system, the **bacterial load on the instruments and surgical site is reduced by 95%** compared with conventional ventilation systems. The fewer the bacteria that enter the patient's body via the instruments or surgical wound, the less antibiotics are needed to combat them.



The rapid succession of numerous patients in ophthalmology rooms creates a favourable environment for the transmission of infection agents, essentially through the use of medical instruments. A conventional ventilation system is not capable of sterilising the operating theatre in the short time between one operation and the next, thus promoting infections that can be transmitted from one patient to the next.

## Preparation of instruments



Instruments can always be prepared in the zone protected by the focused laminar air flow unit, thus maintaining their sterility even during long operations. At the start of surgery, the instrument table prepared under focused laminar air flow is simply moved towards the surgical site and the focused laminar flow also protects the surgical wound area.

## Conventional operating room



**Air filtered through conventional ventilation systems is first directed towards the floor and then distributed homogeneously throughout the operating theatre. Despite all measure to maintain asepsis, the floor of the operating theatre is always contaminated. Thus bacteria can be transmitted to the patient through the instruments and surgical wound.**

**Operio is a focused laminar flow unit positioned in the perioperative area directly on the surgical wound, without introducing obstacles into the zone. This technology continuously produces sterile air, removing airborne particles and microorganisms from the critical zone of the surgical site and instruments. The Operio focused laminar flow unit sucks in the air around the operating theatre and filters it through Hepa filters, cleaning the air of 99.99% of bacteria and microorganisms. The focused laminar flow acts directly on the surgical site and instrument table without being impeded, thus reducing by up to 95% the bacterial load on the surgical site and instrument table. Operio focused laminar flow is the ideal solution for ophthalmology and intravitreal injections.**



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