

An Alternative to the Conventional Operating Room

Bravis Hospital is a medical center that combines the Lievensberg Hospital in Bergen op Zoom and the Franciscus Hospital in Roosendaal, in the Netherlands. More than 10 years ago, the Franciscus Hospital acquired a SurgiCube® to replace their ageing operating room. Dr. Rogier Kramer, former Ophthalmologist at the Franciscus Hospital outlines how this improved sterility, enhanced efficiency and led to new surgical practices in Ophthalmology.

When the Franciscus Hospital in Roosendaal faced the dilemma of entirely upgrading its operating room or closing it down, they opted for a new solution, which was then in a relatively early stage of development – the SurgiCube®.

“We required better sterility in our operating room. It needed a significant upgrade or another alternative. We looked into the costs of creating a new OR, but these were prohibitive,” said Dr. Kramer. “I first became aware of the SurgiCube® at an ophthalmology congress. I must say that I was immediately enthusiastic about the idea. I found the SurgiCube® so ingenious. I didn’t know initially that the invention was from the well-known eye surgeon, Dr. Gerrit Melles. I discovered this later on. We read a lot of information on the SurgiCube® before deciding on it. I convinced my colleagues and the hospital administration that this was a good solution for our dilemma. It was relatively cheap and would mean there was no need for new operating room.”

A Perfect Solution

The SurgiCube® met the Ophthalmology Department’s need for sterility perfectly.

“The SurgiCube® provided a truly sterile work environment, providing that the patient was placed correctly within the SurgiCube®. We developed a sort of mapping technique to make this easier. It is also important to cover patients with sterile draping to guarantee complete sterility. The advantage of all this though, is that any microbes from the staff did not affect the sterility or harm the patient,” remarked Dr. Kramer. “We were able to perform cataract and glaucoma operations inside the unit and used room behind the SurgiCube® to carry out intraocular injections, as it also had a high level of flow and was a relatively clean environment for the patient.”

“In addition, the system brought many advantages for our patients,” he continued. “They arrive for their operation dressed in their day-clothes, which helps them feel more relaxed. As long as the draping is done correctly, so that it creates a sterile field, it doesn’t matter what the patient is wearing underneath.”

Increased Concentration

The surgical drapes cover patients, so that just their eye is visible for the surgery. This focuses the surgeon’s attention on the operating area.

“The surgical draping required aids the concentration of the surgeon and is very beneficial. Our level of concentration during operating went up with the SurgiCube®,” said Dr. Kramer.

New Techniques

The SurgiCube® also changed the way that the ophthalmic surgeons worked for certain procedures.

“With a small room, we purchased a relatively small SurgiCube® and had to develop a new way of working with limited space. Normally, cataract surgery is usually carried out on the lateral side - the surgeon and nurse sit at the side of the patient, however, we developed our skills in using the left hand in the operation also, by operating temporarily sitting at the head of the patient. We developed a fully bimanual surgical program. That evolved due to SurgiCube®.”

Ultimate Efficiency

With the SurgiCube®, the Ophthalmology Team at the Franciscus Hospital could accommodate a swift change in program, which enhanced workflows and enabled better efficiency. The Team was able to perform around 11 cataract operations on average during most mornings.

“The SurgiCube® forced us to think about how we managed the patients and surgery in the air flow, as well as how best to negotiate the limited space. This also meant that we looked closely at our workflow efficiencies,” explained Dr. Kramer. “We put tape on the floor to show exactly where patient chair had to be positioned, which saved some preparation time. The SurgiCube® was placed strategically with regards to the entrance to the room, so that we could drive the patients directly through and minimize any turns required with the patient to improve efficiency.”

“The SurgiCube® was perfect to work in for me and one nurse,” he continued. “The images from the microscope inside the SurgiCube® were beamed into the operating room, so people outside it knew what was happening and could tell what stage of the operation had been reached at any given time...how far along in the procedure the surgeon was. This also facilitated the swift change of patients.”

Brilliant

When Dr. Kramer worked at the Franciscus Hospital as an ophthalmic surgeon, the hospital used the same machine for over 10 years without incident. It was regularly maintained by SurgiCube® according to their annual service program.

“The SurgiCube® is just brilliant. It works perfectly and is also ideal for many other types of small surgery outside Ophthalmology, such as fine hand surgery and even orthopedic surgery,” concluded Dr. Kramer.

Quote

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Dr. Rogier Kramer, Ophthalmologist/Ophthalmic Surgeon, the Netherlands.

Dr. Rogier Kramer studied Medicine at Utrecht University in the Netherlands and specialized in Ophthalmology at Maastricht University, also in the Netherlands. He has been an Ophthalmologist/Ophthalmic Surgeon for more than 30 years. Dr. Kramer has extensive experience in cataract and implant surgery, oculoplastic-, cosmetic- and reconstructive surgery. In the past, he has also worked extensively in retinal- and vitreous surgery, scleral reinforcement for high myopia and orbital surgery. He worked as an Ophthalmic Surgeon at the Franciscus Hospital in Roosendaal, the Netherlands until 2014, and now freelances.