

Preventing Complications in Orthopedic Surgery

Some years ago, the Vestre Viken Hospital, in Drammen, Norway, recognized the benefits of the Toul Meditech Operio® for orthopedic surgery. Dr. Lukas Mansson, Chief of Services for the Department of Orthopedic Surgery and Emergency Medicine and Orthopedic Surgeon at the Hospital, has used the system since it was installed in 2015, and values the contribution that it has made to infection control, as well as cost savings.

A Better Option for Clean Air

Orthopedic surgery is carried out in two different hospitals within the Vestre Viken Hospital Trust. As part of the planning of a major renovation of existing operation theaters in 2014, the orthopedic team investigated new clean air systems.

“With inconsistent data regarding the performance of LAF (Laminar Air Flow) ceilings, we looked for alternatives in the market and found out about Toul Meditech Operio®,” said Dr. Mansson. “It became a choice between a LAF ceiling and the Toul Meditech Operio®. Toul Meditech Operio® stood out for three main reasons. Firstly, there was good and consistent data published on its performance. Both preclinical and subclinical papers. Secondly, it appealed because it gives us better control of the clean air in the operation, that can be focused on the surgery site and on the instrument table. And the last point that was relevant was cost. On life-cycle cost, the Operio® offers savings.”

Infection Control System

The Toul Meditech Operio® has become a part of the Hospital's infection control system. “We have a very efficient or effective infection control program and have reduced the risk of many infections through this,” remarked Dr. Mansson. “It's hard to say which part has contributed to what in a complex system, but we have been able to achieve a relatively low incidence of circo synovial infection in the context of joint replacement that is class leading on a global scale. That, of course, is the main benefit of the Toul Meditech Operio®. It is part of a very good system.”

Since 2015, the Vestre Viken Hospital has used the Toul Meditech for more than 5,000 joint replacements and over 3,000 spinal surgeries, as well as other surgeries. It is now used for all joint replacements and spinal surgeries.

No Downtime

Firstly, the system was used in the Vestre Viken's minor hospital. While the main operation suite in this hospital was renovated in December 2019, the Toul Meditech Operio® enabled joint replacement surgery to be continued in the day surgery unit.

“Without the Toul Meditech Operio®, that would not have been possible, because that was an old (20 years old) day surgery unit, which was originally designed for non-ultraclean surgery” said Dr. Mansson. “With the Toul system, we were confident that we had a clean air system that we could employ to utilize all the space that we had.”

Adopting New Technology

Within a short space of time, the Toul Meditech® was easily integrated into the surgical processes of the orthopedic department.

“With Toul Meditech Operio®, you do have to look through your processes. You have to ensure that the nurses and surgeons that use the system really know and understand it,” emphasized Dr. Mansson. “However, if you accept it and learn how to use it, you can

maintain good efficiency, but you need to adapt it to your work level, or adapt your work-level to that kind of equipment.”

COVID-19 Pandemic

The COVID-19 pandemic has had an impact Norway, although so far not as severely as some other countries.

“Considering the effects of the pandemic on the world in general, we have a huge backlog on elective surgeries on a global scale. And of course, every technology that can reduce the risk of major surgery complications helps capacity in this context,” said Dr. Mansson. “Some orthopedic conditions already require enormous amounts of resources to treat, with long surgeries, and long stays at the hospital, but one of the biggest cause of waste in the healthcare environment is major complications, as well as over treatment. So everything we can do to reduce complications will free up capacity to address that backlog. I think it's extremely important that during the post-pandemic period we consider that we look at infection control and learn as much as possible from the pandemic experience. Infection control must be regarded as an essential system. And in infection control with regards to surgery, I would predict surgery with the Toul Meditech Operio®, can be a cost-efficient part of that.”

Dr. Lukas Mansson

Dr. Lukas Mansson is the Chief of Services for the Department of Orthopedic Surgery and Emergency Medicine at the Vestre Viken Hospital, Drammen, Norway. He is also an orthopedic surgeon, mainly in hip, shoulder and trauma surgery.

Dr. Mansson has worked at the Hospital for 16 years. He has worked as an orthopedic surgeon at several different hospitals before that, in both Norway and Sweden.