



OEC One CFD - A Biomedical Engineer's choice

Andreas Magnusson, biomedical Engineer

Andreas Magnusson is the biomedical engineer in charge of the mobile C-arms used in the operating rooms.

Mr. Magnusson explains what criteria he considered for the selection of OEC One CFD for trauma orthopedic surgeries.

"When we select new equipment, we consider the cost effectiveness, the ease of use, and the performance of the product. We work collectively with the physicists and the clinical staff to select the best C-arm for the activity. We asked the different manufacturers to come over for one week of demo with their C-arm so it could be tested by the different members of the team.

Our physicists were involved in the evaluation of the radiation dose. They concluded that the level of dose for OEC One CFD was low compared to other C-arms. This is one benefit from the CMOS detector: high image quality at low dose. It was one of the criteria of choice among the different brands of C-arms we tested.

From the technical standpoint of the biomedical engineer, we wanted to select the C-arm with the best compromise between image quality and ease of use. If the user interface of the C-arm is cumbersome, it doesn't matter how good the image quality is. The operating room is an increasingly complex environment, with an increasing amount of equipment to be used by the staff. New equipment should be very intuitive to use without additional stress.

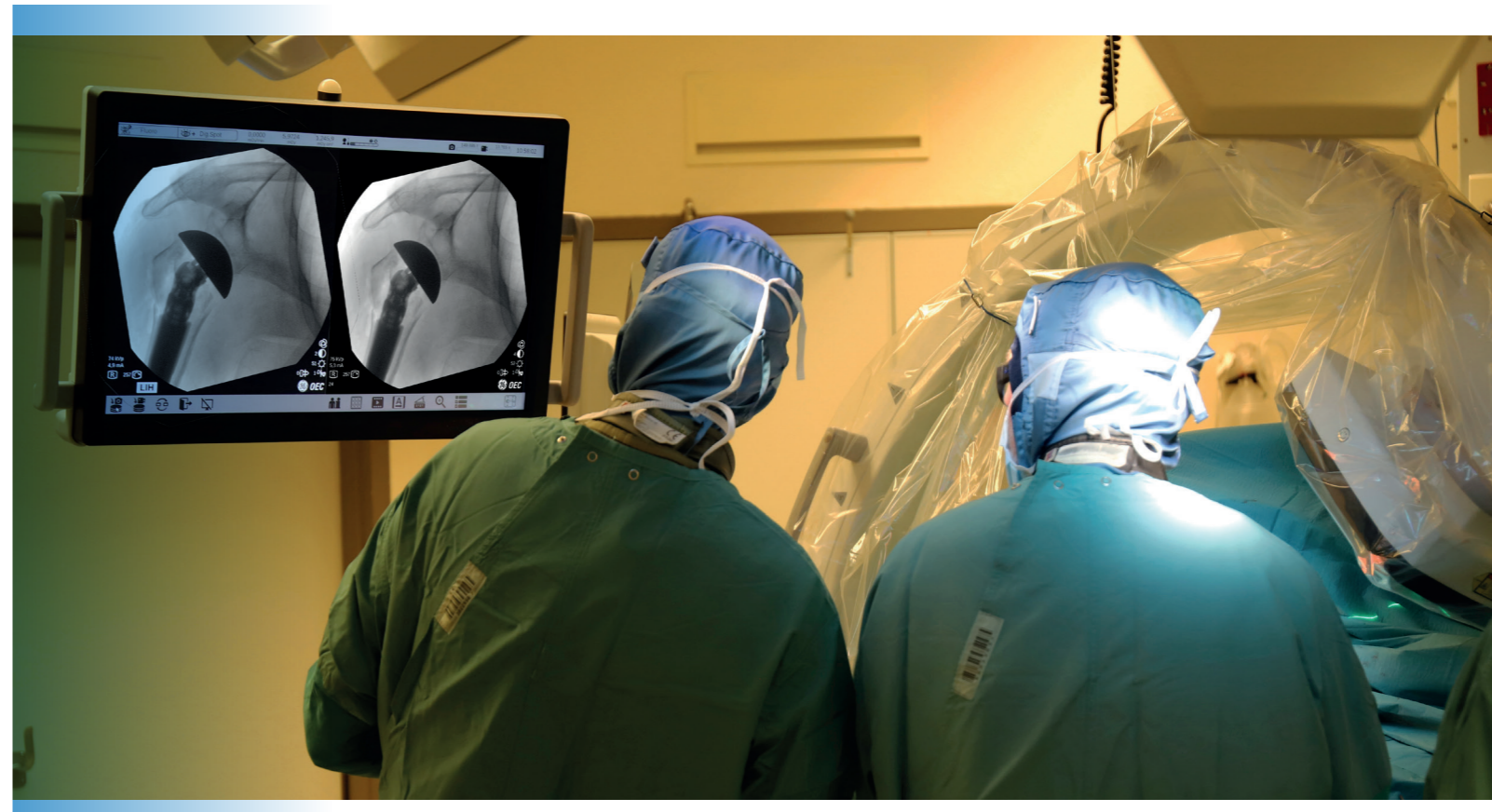
The OEC One CFD was convincing in that sense: the menus have large and easy-to-understand icons, and I was also able to set up the OEC One CFD C-arm quickly within the hospital network.

The 'All-in-One' compact design is important for us. It is an improvement not having the C-arm mainframe and a separate cart for the video monitor that has to be moved from one OR to the next. In our orthopedic activity, there is no need for the extra monitor cart because we can connect the C-arm to any external monitors in the OR. We like this configuration because it avoids the need to handle the monitor cart and reduces the congestion of the operating room with equipment and cables.

When we tested the image quality, I

knew that surgeons want to see fine details such as the cortical bone lines or the fracture lines. We knew that the enhancement of image quality is due to the CMOS digital detector that the team has already been using with the OEC Elite CFD C-arm. Compared to our older C-arms that don't have a CMOS flat detector, the improved image quality was immediately perceived by the surgeons. They say that they can see the very fine details in the bones and the surrounding tissues. This is something that was immediately highlighted by the clinical staff.

In the future, it will be difficult to go for anything other than a CMOS detector. The image quality increased significantly and we benefit from reduced dose."



The statements by GE's customers described here are based on their own opinions and on results that were achieved in the customer's unique setting. Since there is no "typical" hospital and many variables exist, i.e. hospital size, case mix, etc., there can be no guarantee that other customers will achieve the same results.