



Control and flexibility for greater surgical confidence

Working with the Philips Image Guided Therapy Mobile C-arm System 9000 – Zenition 90 Motorized

Location:

Bellvitge University Hospital (Hospital Universitari de Bellvitge), l’Hospitalet de Llobregat, Barcelona, Spain

Size/scope of hospital:

Tertiary hospital with approximately 750 beds, serving a community area of 300,000 inhabitants, plus high-complexity cases across the south of Catalonia (a region of over 2,000,000 inhabitants)

Solution:

Philips Image Guided Therapy Mobile C-arm System 9000 – Zenition 90 Motorized

Benefits:

Consistent user interface, high usability, smooth and fast motorization, simultaneous movement of 4 axes, high image quality and flexibility

Bellvitge University Hospital’s Angiology and Vascular Surgery department is eager to ensure that the institution – located in l’Hospitalet de Llobregat, within the metropolitan area of Barcelona, Spain – remains at the forefront of innovation. As head of department Dr. Elena Iborra explains, “Our team is young and has a lot of desire to work hard and break new ground. Our hospital performs a lot of surgical and diagnostic activities, and we have a very powerful diagnostic laboratory that acts as a reference site across Spain, if not even at a European level.”



The department performs a wide range of procedures using mobile C-arms, with almost 400 patients per year requiring lower limb revascularization, for example. In addition, as vascular surgeon Dr. Carlos Martínez-Rico highlights, “During all open surgeries, we perform angiographic checks using the mobile C-arm. We are perhaps one of the few centers in Spain, maybe even globally, that takes this step.”

“I believe that Automatic Vascular Outlining is one of the [Zenition 90 Motorized] system’s most important features. I have used it a lot.”

Dr. Dorelly Martínez, vascular surgeon, Bellvitge University Hospital

Taking mobile C-arm technology to the next level at Bellvitge – with Zenition 90 Motorized

Between June and October 2024, the hospital opted to trial the advanced Zenition 90 Motorized mobile C-arm system as a first-of-kind customer. During this time, the team performed over 60 surgeries in total while using the system.

As Dr. Martínez-Rico explains, “Surgeons, by nature, always want to have control over all situations – and in the past, we did not have complete control over the C-arc during surgery. We wanted to be able to control the procedure in every way, even the movement of the C-arc – and this is what the Zenition 90 Motorized brings to the table.”

An intuitive, familiar interface

The Bellvitge team immediately recognized the Zenition 90 Motorized system’s user interface, as the department already works with both Philips Azurion and the Zenition 70 systems. As vascular surgeon Dr. Dorelly Martínez observes, “The interface is very similar to that of the Azurion, and I can say that it is quite intuitive and therefore easy to use.”

And in terms of consistency with other Zenition Series systems, Dr. Martínez-Rico confirms: “It has been very easy to use, precisely because we were already users of the Zenition family. Within 5 to 10 minutes, you can already use it as if it has been yours forever.”

Flexibility and versatility

Dr. Iborra is quick to highlight the system’s flexible, adaptable design: “You can put the motorization and imaging controls wherever you want – either hooking it to the table, or by working with the mobile Pedestal Trolley. Users can adapt the configuration to fit different contexts, situations or spaces.”

Dr. Martínez-Rico shares his colleague’s positive impressions: “With other systems, you can only set up the operating room in a certain way. But with the Zenition 90 Motorized, you can think about the best way to configure it for yourself and for your patients – that’s what the system gives you.”

Independence and control with motorized movements

The system’s 4-axes motorization – controlled via the Table Side Operator – was of considerable interest to Bellvitge’s vascular surgery specialists. As Dr. Martínez-Rico reflects, “The motor gives you absolute control at the level of pathology. Compared to previous C-arcs, it is a great advance in proximal pathology and solves a wide range of challenges, with very little base movement.”

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Dr. Elena Iborra, Head of Angiography and Vascular Surgery, Bellvitge University Hospital

Vascular surgeon Dr. Begoña Gonzalo echoes her colleague’s sentiments: “The system enables more accurate, precise control of the angulations that the surgeon wants to make. It’s a great advance overall.”

Dr. Iborra witnessed the benefits of motorization first-hand during a case performed on a patient with a severe iliac aneurysm. She reports: “I believe the motorization helped us to move during the surgery, in such a way that we were able to make a direct puncture of the aneurysm at the percutaneous level from the abdomen, to be able to control a very severe bleeding. It allowed us to see clearly what we needed to see.”

To help users take full advantage of the system’s motorization, the Zenition 90 Motorized comes equipped with the BodyGuard collision prevention system. As Dr. Martínez explains, “This feature is a good way to prevent collisions with the patient and material – it’s sensitive enough.”

Automatic Vascular Outlining – a valuable tool for surgeons

The team was also impressed by the Automatic Vascular Outlining feature, which enables surgeons to quickly outline vascular edges on the subtraction image from anywhere in the OR. As Dr. Gonzalo reflects, “I see it as a remarkably interesting feature. By making a delimitation of the vasculature, the tool allows you to clearly see the location of the region of interest, with a simple fluoroscopy. Since you don’t have to make a roadmap, you see the real image of what you are doing.”



Dr. Dorelly Martínez

Having utilized Automatic Vascular Outlining during a procedure for a superficial femoral artery injury, Dr. Gonzalo adds, “It helped me to perform both the dilation and the deployment of the stent. The truth is that I really liked that tool.” As Dr. Martínez concludes, “I believe that Automatic Vascular Outlining is one of the system’s most important features. I have used it a lot.”



Dr. Carlos Martínez-Rico

“Zenition 90 Motorized gives greater control to the surgeon, and that control gives you confidence. And if you are confident, then you can perform increasingly complex procedures.”

Dr. Carlos Martínez-Rico, vascular surgeon, Bellvitge University Hospital

Powerful features, real-world benefits

Dr. Iborra emphasized the convenience introduced by the Touch Screen Module, highlighting its capability to control various imaging features directly from the table-side. She noted: “Being able to work with the screen and not depend on another person is a plus.”

The Bellvitge team utilized other valuable features of the Zenition 90 Motorized system. For example, the Timer feature was especially well received, as Dr. Gonzalo notes: “We love it, and we use it a lot. We have to time dilations during all endovascular procedures. In the past, we had to ask somebody to do this for us – so this is another tool that increases our independence and control during procedures.”

The system’s personalization capabilities also supported the team’s workflows. Describing the User Profile feature, Dr. Iborra comments, “The ability to organize the configuration to your liking is important, as is the ability to easily switch to a different profile. For example, if I work with Dr. Martínez-Rico’s profile one day and find it helpful, I can simply select that profile again next time. It’s a very interesting feature that saves both work and time.”

And in terms of image quality, the team particularly appreciated the Personalized IQ feature, which allows users to select their preferred image (look and feel). As Dr. Iborra comments, "It gives you the power to customize images to suit what you think is best."

Summing up

So, what advice would the Bellvitge team give to those who may be looking for a mobile C-arm system? As Dr. Iborra reflects, "If you're looking for a mobile C-arm, you need to make sure that from your position as a surgeon, you can control as many things as possible. As surgical spaces are sometimes tight, it is less complex to work with a system that is agile and easy to mobilize."

Dr. Gonzalo shares her colleague's view, adding: "Particularly in hospitals that do not have a hybrid room, it is important to work with a C-arm that allows for control and independence, because this will ensure an improvement in work capacity. In that respect, the Zenition 90 Motorized offers many features, such as Automated Vascular Outlining, precise motorized movements and the Touch Screen Module, which deliver great advantages compared to other systems."



Dr. Elena Iborra

Looking at the system as a whole, Dr. Martínez-Rico's conclusion is clear: "Zenition 90 Motorized gives greater control to the surgeon, and that control gives you confidence. And if you are confident, then you can perform increasingly complex procedures."



Dr. Begoña Gonzalo

"The [Zenition 90 Motorized] system enables more accurate, precise control of the angulations that the surgeon wants to make. It's a great advance overall."

Dr. Begoña Gonzalo, vascular surgeon, Bellvitge University Hospital

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