

Interventional cardiology training on modern simulation systems



During the 2006 World Congress of Cardiology in Barcelona, cardiologists could perform cardiovascular interventions on the vascular simulator (Cathi) at the Siemens booth. This simulation system is used in one of Siemens' educational training classes.

In cooperation with Prof. Voelker from the University of Würzburg, Germany, Siemens Medical Solutions offers the hands-on "Introductory Course in Interventional Cardiology" to train cardiologists who already have experience in invasive coronary diagnostics and now want to prepare for interventions.

Dr. Samo Granda and Dr. Gregor Kompara, two fellow cardiologists from the General Hospital in Slovenia, were among the customers in Barcelona. They noticed that there was always a big crowd of interested doctors around the Siemens booth with the simulation system. After handling the guide-wire themselves, they were fascinated by the unique simulation technique. During the following days, they visited the Siemens booth several times to do hands-on training with the cardiovascular simulator.

Both physicians were particularly interested in the "Introductory Course in Interventional Cardiology" and thus took part in the workshop. "It was great how Siemens presented their educational offerings at the

ESC/WCC in Barcelona. Hence, my colleague, Dr. Gregor Kompara, and I had spontaneously decided to take part in the training course, which took place two weeks later – and it turned out to be an educational highlight," said Dr. Granda.

During the workshop at the Siemens Medical Solutions training center in Forchheim, Germany, a lot of attention was paid to the simulation. "Practice makes perfect" – this saying goes for physicians as well as for pilots. And because only constant practice really makes perfect, airline pilots regularly have to complete training sessions in a flight simulator. "Simulator training has been an integral part of pilot training and pilot careers for decades. Studies show that repeated training in the simulator has statistically increased flight safety by the factor of 45," explains Prof. Voelker, assistant medical director of the Würzburg University Hospital. Meanwhile, it is not only pilots who have the chance to practice before doing the real thing. Thanks to new developments, physicians can now use simulators to try various diagnostic and interventional techniques or learn new procedures and thus optimize their learning curve.

The hands-on sessions on various simulation systems took place in very small groups, which tremendously increased the learning

effect. While the participants were performing interventions on the simulation system, there was always an experienced cardiologist at their side. Besides Prof. Voelker, a team of four experts in interventional cardiology from different schools shared their experience with the participants. "The teaching passion of the experienced cardiologists and the very limited group size enabled me to effectively interact and gain confidence through learning by doing," described Dr. Granda.

Life: Skills, productivity, and technology

The clinical workshop: "Introductory Course in Interventional Cardiology" is part of Siemens' customer care program "Life," a series of training courses and workshops to increase customers' skills, productivity, and technology. Continually enhancing know-how, Siemens Medical supports users in fully utilizing the potential of their systems. Based on the specific needs of the target group, Siemens Medical offers applications and clinical training tailored to individual requirements.

Dr. Kompara further underscored the particular advantages of the training concept: "The intensive hands-on sessions with the simulation systems not only allowed me to practice in an environment that tolerates mistakes, but also gave me the opportunity to discuss the procedures with experienced cardiologists without any time pressure."

Beyond the simulation sessions, the two-day course curriculum included seminars such as "optimized angiographic settings for diagnostics and intervention," "quality management in the cardiac cath lab," "basic principles of radiation reduction,"

and "complication management in the cardiac cath lab."

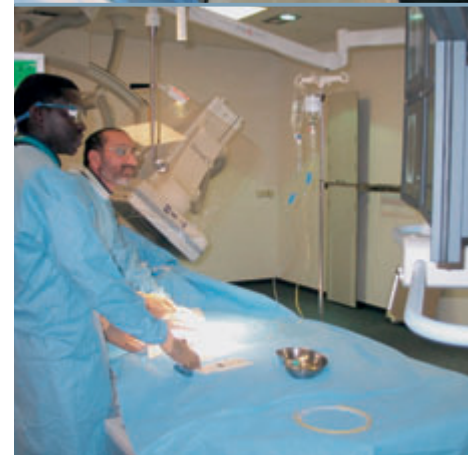
Dr. Granda and Dr. Kompara had the opportunity to exchange experience with cardiologists from all over the world. Participants came from Ireland, Bahrain, Senegal, Estonia, Bulgaria, and Germany. Peer-to-peer exchange on an international level in a mistake-tolerant and relaxed atmosphere proved very valuable to them.

At the end of the workshop, Dr. Bin Thani from Bahrain appeared entirely satisfied with the course concept: "To me, it was absolutely worthwhile coming from Bahrain to Forchheim to learn about interventional cardiology. The skills I obtained here really helped me to get up to speed in the clinical environment. In addition to my newly obtained knowledge, I benefited greatly from the valuable exchanges among the international participants."

At the end of the workshop, the two doctors from Slovenia were very pleased that they had so spontaneously decided to travel to Germany and take part: "The workshop exceeded my expectations. To me, the workshop is perfect for beginners in interventional cardiology," said Dr. Granda. "The workshop greatly increased my knowledge and skills in performing interventional procedures very quickly. Such knowledge augmentation would not be possible in the clinical routine," concluded Dr. Kompara.

**For more detailed information,
send your questions to:
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Interested cardiologists at the Siemens booth at the WCC in Barcelona



Dr. Ibrahim Bara Diop from CHU Fann, Bahrain, performing an intervention on the cardiac simulation system