

Europe's collective knowledge

ExMEx Forum, Berlin, March 26 to 28, on the subject of minimal invasive orthopedic therapy

A special attraction in Berlin awaits hip and knee surgeons from throughout Europe this coming March: The EFORT-ExMEx will gather and discuss experiences from across the continent relating to state-of-the art, minimal invasive orthopedic therapy. The participants can expect best-practice models as well as future trends and time frames for work-in-progress solutions to the common incision site problem.



Prof. Dr. Fritz Uwe Niethard

For orthopedic and trauma surgeons, Berlin most certainly will be a worthwhile visit this coming spring. From the 26th to the 28th of March, 2010, the cosmopolitan capital between the rivers Spree and Havel will host the EFORT ExMEx (“Experts meet Experts”) Forum on the theme of minimally invasive hip and knee joint operations. In all likelihood, participants will only have time to absorb the loveliness of the German capital on the fringes of the discussions, given the exciting themes and opulence of information.

“The ExMEx Fora constitute the highest and most demanding level of EFORT’s advanced training programs,” explained Professor Fritz Uwe Niethard, Director of the University Clinic for Orthopedics and Traumatology in Aachen (Germany). “Experienced orthopedists and traumatologists are offered a podium here both for the exchange of knowledge and for thoroughly controversial discussions of their experiences, from which the lecturers as well as the audience of specialists can profit enormously. Knowledge from throughout Europe, accumulated among the most diverse countries and health systems, will be quasi synchronized this way. When we disband, each will be aware of the current status in the various regions. Best-practice-models will crystallize out of this and it will become clear as to which of the potentially very different approaches to solutions will be best for what healthcare system.”

Minimal invasive hip and knee joint surgery for exploratory-worthy reasons has established itself in some areas but not in others. “Ambiguity exists not only with respect to indications, but also in regard to general economic conditions, so that navigation and robotics within the EU are implemented far differently,” according to Professor Niethard. “It will be very worthwhile to find out how this is viewed and is being dealt with elsewhere. Medically as well as economically, if it is a question about whether the acquisition of expensive navigation technology is reasonable, or rather, which modifications might at best make them commercially sustainable.”

That ExMEx is now invited to Berlin for this is a tribute to one of the most exciting projects in the field of navigation. “OrthoMIT -- the orthopedic operating room of the future” is being developed at a number of German universities under the direction of Professor Niethard. “The acronym stands for “minimal-invasive orthopedic therapy” and is a joint research project, under German public research sponsorship, whose goal is to develop an integrated platform for minimal invasive interventions. Flexible modules for hip, knee and spinal surgery should make it possible to adapt therapeutic procedures to individual situations.”

At the beginning of the ExMEx Forum, previous orthoMIT results will be introduced in three subgroups:

- *Smart Intraoperative Imaging* (themes, inter alia: Zero-Dose-C-Arm-Navigation, robot supported C-arm X-ray imaging, 3D ultrasonic imaging and referencing of MRT data for the completion and updating of intraoperative information)
- *Smart Knee and Hip Surgery* (themes, inter alia: marker-and-tracking free knee endoprosthesis; ultrasonic-based identification of landmarks for individual biomechanical planning models; modular sterilizable 5DOF-minirobot for minimally invasive hip-revision prosthesis, knee endoprosthesis and endoscopy spinal surgery)
- *Smart Integration* (themes, inter alia: OP table steering for the reduction of performance limiting body posture; innovative operating concept through remote pointer)

“The heading over this could read ‘optimization through integration’,” Professor Niethard suggested. “It is a matter not just of an ultramodern OP table itself, but rather of all the encompassing processes that unfold prior to the operating room as well. Technically it is one of the greatest challenges – and concurrently one of the greatest expected advancements – to create optimized interfaces. Previously, for instance, equipment for knee endoprosthesis and for hip endoprosthesis were not compatible; the circuit points and formats for imaging devices were incompatible, as was much else. Because of that, we are working together with the engineering branch in making far-reaching progress toward creating a common basis – a theme that has to be resolved if we are to integrate further technical advancement in an economically supportable way.”

The ExMEx-Meeting could therefore appeal not just to surgeons, but quite similarly to one or another budget conscientious hospital manager. The latter will be able to find out when integrated – and therefore cost-synergetic – navigation systems will be ready for action. “They could significantly lower the threshold from which the newest and patient-friendly state of orthopedic surgery also becomes economically feasible,” Professor Niethard emphasizes.