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Healthcare – Education

University Medical Center Utrecht: refining education with Polycom[®]

What makes a good surgeon? Do a little research and you'll see that all studies on the subject will have at the top of their list amongst many other attributes: knowledge! There is no doubt, surgeons have to know their stuff. There is a lot to know about the anatomy, surgical techniques and procedures. And the education of a surgeonlasts their entire life, it is constant, a surgeon never stops learning. The University Medical Center Utrecht (*UMC Utrecht*) in the Netherlands is a place where great surgeons are taught, and one of the solutions used to teach these students is video conferencing.

Professor Grolman is the Head of the department of Otorhinolaryngology and Head and Neck Surgery at the UMC Utrecht. He specialises in Otology (ear surgery), with a special focus on Cochlear Implantation and Stapes surgery. At this teaching hospital, it is his responsibility to ensure the ENT (ear, nose and throat) interns and residents get the best on-the-job experience while under his supervision. Professor Grolman says, "To become a great surgeon, you have to watch the same operation being performed many times, preferably by different surgeons. You need to see different techniques. Two surgeries are rarely identical." He continues to say, "You need to watch and learn. And *videoconferencing* is great for that. It allows residents from anywhere to interact with the surgeons, and ask questions." Professor Grolman claims, "Videoconferencing is a great asset for medical and surgical education. It improves and facilitates the sharing of knowledge even from distant centers that is vital in the making of great surgeons."

The professor is constantly searching for ways to improve teaching and facilitate learning; he knew that being able to broadcast in stereoscopic 3D would make a difference. A big difference. He explains why, "the surgical field is not flat. The ear canal is not flat. It is a deep tunnel, with many tiny membranes, and giving the residents that feeling of depth or 3D orientation of the anatomy is revolutionary."

His vision came true on October 28th 2015. Using a *Polycom® RealPresence® Group Series* 5.0 with a 3D lab feature, he broadcast in 3D, via video conferencing, two stapedotomy surgeries. "This is a huge step forward for surgical education," says the professor. For the students watching the surgery with their 3D glasses, it is definately a game changer. One of the students stated, "I watched the same surgery being performed live last week, and this is so much better. You get a much better sense of the operation this way."



"With the Polycom RealPresence Group Series, the ability to broadcast 3D images is groundbreaking for medical education."

Professor Grolman, Head of the department of Otorhinolaryngology and Head and Neck Surgery, UMC Utrecht



This will also make it easier when a resident is performing the surgery under supervision. The supervisor will be able to guide him while looking at a 3D screen in the OR with a reliable representation of what the resident sees through the microscope.

The professor explains that in order to fine tune your art, you have to share and learn from others. This is why in 2006 a group of otologist created *LION*. LION is the Live Interactive Otolaryngology Network, dedicated to high quality continuing medical and surgical education programmes. The objective was to create a permanent interactive worldwide high-speed network, to promote distance learning using video conferencing. And it does. Annually, LION organises multiple live ear-surgery events, using video conferencing, that are publicly available and aimed at Otolaryngology residents and specialists. And its not only about surgeries, meetings are also organised to exchange ideas and experiences. "Videoconferencing allows us to meet regularly and be cost efficient. It has been essential in creating the global otolaryngological community," says Professor Grolman.

And now any surgery performed with a microscope, and not limited to, will be better apprehended by students. The professor is already planning many other surgeries and sharing the solution with other disciplines to improve education. He concludes by saying, "Using the Polycom RealPresence Group Series, the ability to broadcast 3D images is groundbreaking for medical education."

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