

Surgery goes live

Online Webcasts let a worldwide audience watch live operations

In the spring of 2005, Children's Hospital Boston embarked on a new era of technology, becoming the first pediatric hospital in the country to broadcast a live surgical Webcast online. The Webcasts showcase Children's advanced care and technology to an audience of clinicians, while also giving patient families the opportunity to see the latest innovations in medical technology. Viewers also have the opportunity to ask the moderator questions and have them answered during the broadcast.

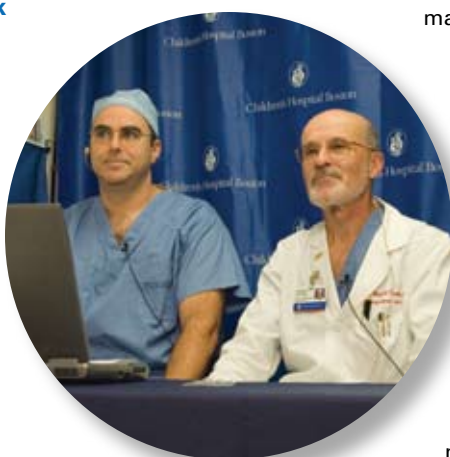
Each one is about one hour long (see bottom of page 5 for a list), and is streamed through the Internet unedited. During the last one this past October, Joseph Madsen, MD, associate in Neurosurgery, performed a brain tumor removal on a 13-year old boy in Children's Intraoperative Magnetic Resonance Operating Room (MR/OR). It was a raging success, earning the highest live viewership of all Children's Webcasts with over 5,000 people logging on.

The next surgical Webcast will be put on this spring by the Urology and Plastic Surgery departments. Two additional Webcasts are being planned.

To view any of Children's past Webcasts or for information on upcoming ones, visit www.childrenshospital.org/webcast. The slideshow for the Webcast can also be viewed on that page. Here, *Children's News* takes a behind-the-scenes look at how a typical broadcast is put together, featuring the MR/OR Webcast mentioned above.

Moderator/Commentators

The moderator, in this case **Mark Proctor, MD**, associate in Neurosurgery (pictured in scrubs, left), is the master of ceremonies. He is responsible for explaining what is going on in the OR, coordinating the PowerPoint slides (which provide information about the procedure as it unfolds) and keeping the program on schedule. The moderator, who is stationed outside of the OR so as not to disturb the surgical team, is often joined by commentators who specialize in areas relevant to the procedure being performed. Here, the commentator is **Michael Scott, MD**, neurosurgeon-in-chief.



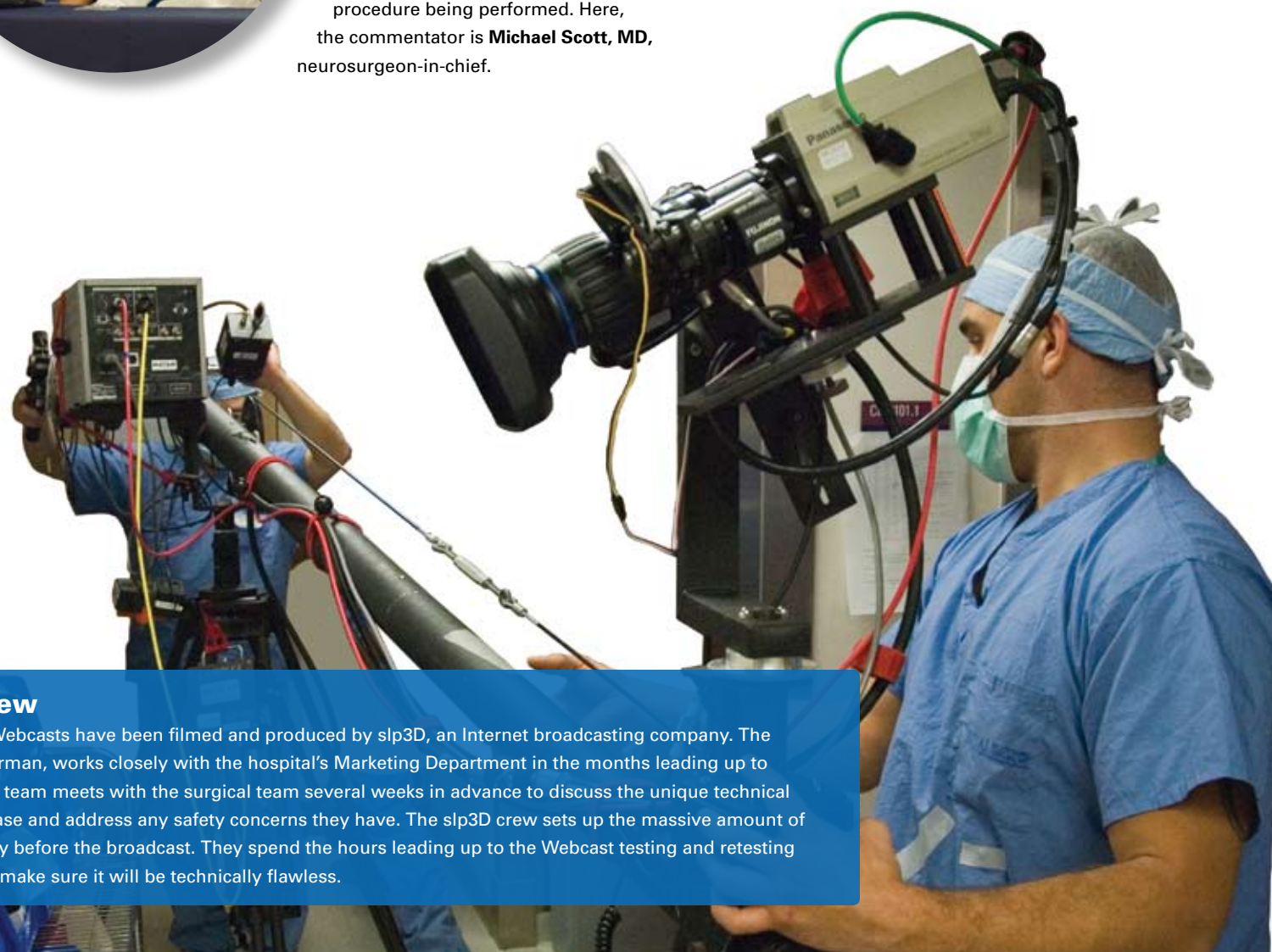
Nurses and technologists

The nurses, technologists and entire OR staff play a crucial role in the success of any Webcast. Their work is especially important in the MR/OR due to its strict safety guidelines and specialized equipment. The magnet/safety nurse, MR and EEG technicians advised the slp3D team on the best locations for the cameras and equipment and helped train the film crew. Prior to the Webcast, the team works together to have the room and equipment ready for the Webcast technicians to proceed. At right, scrub nurse **Rita Tulchinskaya, RN**, prepares surgical tools for the operation.



Surgeon

Doctor Madsen (pictured left), performed a craniotomy while speaking to the Webcast audience. He could hear the moderator, commentators and producer through an earpiece. With the assistance of **Edward Ahn, MD**, and the surgical team, he could take moments to speak to the camera before turning back to the important task at hand.

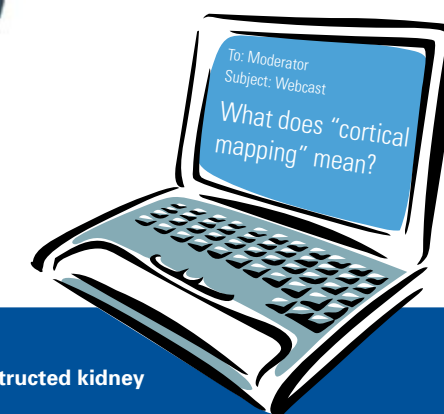


Camera crew

All of Children's Webcasts have been filmed and produced by slp3D, an Internet broadcasting company. The producer, Rich Furman, works closely with the hospital's Marketing Department in the months leading up to the Webcast. This team meets with the surgical team several weeks in advance to discuss the unique technical aspects of each case and address any safety concerns they have. The slp3D crew sets up the massive amount of equipment the day before the broadcast. They spend the hours leading up to the Webcast testing and retesting the equipment to make sure it will be technically flawless.

E-mails

During the Webcast, viewers can e-mail questions about the surgery. The e-mails are immediately reviewed by a member of the Marketing team, who reads over the questions and passes relevant ones to the moderator. The moderator then poses the question to a participating clinician.



DATA CENTER

5,418

viewed the live MR/OR Webcast

14

people on the slp3D Webcast camera crew

90

days to plan each live Webcast

22

different countries tuned into the MR/OR Webcast

42,000

viewers have watched Children's live and archived Webcasts so far

5

Children's Webcasts to date. Others include:

- Minimally Invasive Robotic Assisted Surgery to correct obstructed kidney
- Vertical Expandable Prosthetic Titanium Rib (VEPTR)
- Serial Transverse Enteroplasty (STEP)
- Children's Advanced Fetal Care Center's panel discussion on fetal cardiac interventions