In December 2001, 30-year-old Matthew Whittington had a stroke at home. The skilled factory worker from Coshocton, Ohio was diagnosed with bacterial endocarditis — an infection of the heart valve that releases microscopic material to the brain, causing repeat strokes in 30 percent of patients. He was initially treated with antibiotics, but after a second stroke in January 2002, his neurologists added Heparin, a generic blood thinner, to his treatment.

Five days later an artery eroded, causing bleeding into his brain. Whittington now remains in a near-paralyzed state, and is not expected to improve. He can see, hear, and communicate by wiggling a toe or using an alphabet board, but is tube-fed, immobile, and bedridden.

Whittington's family engaged Columbus, Ohio attorney John Mahota of Mahota & Carter, who filed a medical malpractice suit in December 2002. Matthew Whittington, et al. v. Riverside Methodist Hospital, et al. , FCCP Case No. 02CVA-12-13803 alleges that the doctors who prescribed the Heparin were negligent. The suit argues that naturally occurring blood clots would have prevented further strokes, and the use of Heparin inflamed his condition. In May 2005, Mahota enlisted the assistance of Richard Topper, a solo practitioner in Columbus noted for his trial work.

Topper deposed two neurologist experts for the defense, and prepared for the depositions of his own experts: a neurologist, an economist, a life-care planner, and the plaintiff's treating physician.

Based on a life-care plan of approximately $14 million, the defendants were facing a potential multi-million dollar outcome. W. Frederick Fifner, an attorney in the Columbus office of 60-attorney Dayton-based Freund, Freeze & Arnold, was lead counsel for both defense team and HMU graphics artist Joshua Hoeppner assisted Topper.

Fifner's partner, assisted in the defense of one of the physicians.

Sharing Consultants

Due to the logistical problems associated with the size of the courtroom, Topper and Fifner agreed to use the same trial advisors, Henley & Unger Consulting Inc., based in Columbus, led by co-founder Paul Unger. They split the cost for use of the equipment and Unger setup secure locations on his internal server to create an ethical wall between the members of his team supporting each side. Unger led the defense team and HMU graphics artist Joshua Hoeppner assisted Topper.

"Prior to trial, Rick Topper and I sat down and shared with each other what we each had, so there would be no surprises," recalls Fifner.

**The Defense Animation**

The defense focused on the race against time as doctors attempted to determine the best course of action to treat Whittington — with clotting and surgery on either side of spectrum. The main argument was that the plaintiff's development of a major clot prior to the time his surgeon could operate caused his injury — not the Heparin prescription.

Unger enlisted the help of Stephen Boyd, a medical animator from Kennesaw, Ga.-based Medical Legal Art, to prepare an animation to more effectively explain the diagnosis to the jury. Boyd drafted a 15-image storyboard to ensure that the animation would be effective and medically accurate. He then spent three weeks creating virtual 3-D
polygonal models (three-dimensional pictures comprised of a series of triangles and rectangles set against a grid that provided a sense of depth), which were moved to create the animation using Cinema 4D, from Newbury Park, Calif.-based Maxon Computer Inc.

According to Boyd, the software animated the polygons by timing the movement of each frame, similar to turning the pages of pictures in an old flipbook, to give the illusion of motion.

"You can show things more effectively, such as the opening and closing of a heart valve, through animation than you could in a still image," he says.

The defense simulation portrayed the sequence of clot activity over the course of about one month. It depicted the clot formation, the course of travel, the process of lodging in the brain artery, and the resulting stroke. It also provided a vivid demonstration of the hemorrhaging that occurred.

"The imagery was very effective in helping the jury understand the issues and arguments," Fifner says.

The Plaintiff's Presentation

Topper's team created a slideshow using Microsoft Corp.'s PowerPoint for the opening and closing arguments that explained Whittington's medical records and CT scans. Hoeppner also spent about 10 days using Adobe Illustrator CS2 and Adobe Photoshop CS2 to create the graphics and illustrations incorporated into these presentations.

To display medical films, photographs, and documents, and to play videoclips of expert deposition testimony for cross-examination purposes, Hoeppner built a database using Sanction 2.8, a system created by Tempe, Az.-based Verdict Systems.

"If the jury just hears what is in a record, they feel left out. If you actually show them what you are referring to, that is very helpful," Topper notes. In addition to displaying expert testimony, Topper also planned to use a 12-minute "Day in the Life" montage, made by videographer Mike Alu on a DVD, to poignantly show jurors what the plaintiff was experiencing in his nursing home.

Simplifying the medicine

The trial commenced on May 8, 2006 in the Franklin County Common Pleas Court in Columbus before Judge Tommy Thompson, a retired jurist sitting by assignment. According to Topper, the complexity of the medical issues in the case warranted the use of sophisticated presentation technology.

"My experience with medical malpractice cases is that if a case can't be simplified, a jury will find for the physician or the hospital, regardless of the severity of the malpractice," he says.

Each side brought its own laptop and plugged into the shared 3,000 lumen NEC VT770 projector and Da-Lite 100-inch diagonal Deluxe Insta-Theater screen. The plaintiffs used two Dell Latitude D610s laptop computers (one was a back-up), with LaCie or Maxtor Corp. (recently acquired by Seagate Technology) firewire external hard drives for data and video storage. HMU maintained a Xerox DocuMate 262 scanner for last-minute imaging in the courtroom, as well as a Hewlett-Packard Co. Color Laserjet 3550 for printing.

After two weeks of testimony, the jury of six men and two women rendered its seven-to-one defense verdict in about six hours. Fifner believes that he was successful because "we were able to frame the issues so that the jury understood that when the patient presented, he was in a very bad situation."

He credits the animation as well.

"The use of this did, in my opinion, prompt more jury attention than the old way."

Ari Kaplan is an attorney and freelance writer, who frequently writes for ALM's Law.com. He is based in Milburn, N.J.
E-mail: arikaplan.net