Television Serving Veterinary Medicine

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As he completes his third suture, the surgeon continues his commentary on the procedure, a canine gastrotomy. "We're using a standard two layer inverting closure, so we'll fade out now and come back after we've finished." He continues working until a voice comes from the loudspeaker.

"Okay, cut. That looked good. Doctor, would you like to see a playback now, or just continue?"

"I'm satisfied if it looked okay to you. Let's just go on with the closure."

"Fine... we'll break for five minutes. Your mike is still live, so just let us know a minute or so before you're ready to begin again."

"Alright." As the cameras around him are locked in place, the videotape in the next room begins rewinding to check the picture and sound quality during playback.

Dr. David Merkley is completing his second surgical videotape of the day in room 1485 of the I.S.U. Veterinary Medical Complex. It will be his nineteenth for the year in the Biomedical Communications TV Studio. Upstairs, in a BMC study room, four junior surgery students watch as he performs a canine splenectomy, using a videotape produced six months earlier. In the adjoining study room, another group of students has just begun viewing a feline castration and declaw performed eight months ago.

All this is fairly routine now, and typical of modern biomedical media units. But ten or fifteen years ago, things weren't so simple. All videotape recording was done at WOI-TV and everything required—equipment, animals and personnel—had to be transported from the Quadrangle on the day scheduled for production, regardless of the weather. The WOI-TV staff was extremely cooperative, even to the point of covering the studio floor with sheet plastic to perform bovine and equine necropsies.

The first of these videotapes were black and white, and were played back on a scheduled basis from machines at WOI-TV via coaxial cables running to the Vet Quad. Color recording added a vital dimension to veterinary videotape programs in the late 1960's, and the acquisition of relatively small color videotape decks by the Veterinary College made the scheduling of the playbacks within the Quadrangle fairly simple and routine. But the most important change in instructional video was the development of the videotape cassette in the early 1970's. These machines, in the original ¾-inch variety, made videotape as easy to use in the classroom as slide projectors. The fast, simple loading and automatic threading of the cassettes also made it possible to set up a videotape library for checkout to individual veterinary students.

Until the late 1970's, television production was tied to the studio by the weight and bulk of the cameras and recorders which were used. To capture subjects in motion anywhere else, it was mandatory to use a 16 mm film camera, and edit the film footage into the videotape recorded in the studio. While mobility is assured in the field with a film camera, sound recording is complicated and it's impossible to see the result immediately, as is possible with videotape.
Dr. David Merkley performs surgery during production of a "Soft Tissue Surgery Techniques" videotape program in the BMC studio. Both BMC and Media Resources personnel operate the video equipment during these sessions.

In 1976, Biomedical Communications moved into its present facilities in the new Veterinary Medicine complex, including a TV studio designed to support veterinary instruction. A system of color videocassette decks and ceiling-mounted color monitors has been installed in each major lecture room and teaching lab. Two video microscope systems are also in operation, and a cable distribution system is in place in the building.

The list of equipment which makes up the BMC television system continues, but the most important element is the people who run it. First, there's Dave White, the BMC TV/Audiovisual Engineer, who has been with the section for four years. He worked at the Administrative Data Processing center on campus and at WOI-AM and FM before joining BMC, and has lived in Ames for 20 years. He is married and has a son and a daughter.

Dave has seen much of the development of the television system within the new facilities. "One of the biggest changes I've seen here is the improvement in video equipment in general, and cameras in particular," he observed. "When I started here, the standard
type of TV camera available for this kind of work was a 70-pounder, always mounted on a rolling tripod, and usually limited to use in a studio. Today, we have cameras that weight about twelve pounds and can outperform the older types in both picture quality and reliability. And they cost about half as much."

Since he is responsible for the maintenance of all television and audiovisual equipment in the College, as well as many public address and paging systems, Dave is well acquainted with the internal workings of most of this gear. "We try to maintain a file of manuals for all of our major equipment. It's an important part of this job just to stay aware of how it all works and how it should be maintained. And the use of solid-state 'chip' circuitry really helps with the reliability of these machines," he said. "Also, the manufacturers are improving their mechanical parts, so they'll stand up better in use."

What makes Dave's job different from most TV engineering jobs is the variety of things he gets involved in on a day-to-day basis. He has a major role in all scheduled videotape production, adjusting the cameras and other equipment before taping begins, and operating audio and video controls, as well as the recorder itself. He also sets up live-camera demonstrations in classrooms and labs, as well as special projection and recording setups, and does mobile-location videotape recordings to document unusual cases or other subjects which can't be brought to the studio. And he often edits the videotape recorded in earlier sessions.

The other member of the Biomedical Communications staff who is regularly involved in television production is Steve Pendry, the Coordinator of BMC. He lives in Ames with his wife and two young sons.

With a background in advertising, photography, film (at Iowa State) and instructional television (in the U.S. Army), he joined BMC in 1973, as a photographer/filmmaker and occasional TV producer, working with the staff and facilities of WOI-TV. His predecessor in the job, Gary Krull, was active in these activities for the previous two years.

Steve is generally involved with the preproduction planning, directing, and often the editing of videotape programs. "When I started here," he recalls, "it wasn't certain whether there would be a television studio in this building or not. The space was there, but it could easily have been converted into a big storeroom." Steve and Dr. Norman Hutton, the Assistant Dean, decided it was feasible to go ahead with the studio, "... and the result of that decision, with the help of a lot of people, is what you see downstairs."

He feels that the design of the BMC video equipment systems reflects the kinds of work a veterinary college requires. "We've selected our equipment with specific applications in mind, and often we've built what we needed, if it wasn't available off the shelf." An example of this is the collection of pipes and fittings, dubbed "Igor", which hangs from the lighting grid above the studio; it provides a stable mounting position for motor-driven remote control units, which aim the camera and adjust its lens. "Before we built that contraption, it was almost impossible to get a good high angle for the closeup shots during surgery programs. We had a similar problem with shots of the Beckman physiographic chart recorders... a tripod just wouldn't do it. Now it's really simple for everyone."

"Our teleprompter is another example," he continued. "Everyone who watches a videotape expects good eye contact while an instructor is on camera. We built a prompter to allow people without TV experience to accomplish that, without a lot of rehearsal or awkwardness."

Television is a team activity, and several people are required whenever a studio production is scheduled. During the first few years in the new complex, camera operators and other crew members were "drafted" from Dave White at the controls of the videocassette editing system.
other areas of BMC. While this method got the job done, it temporarily left the section without a secretary or graphic artist.

In late 1980, BMC entered into a cooperative agreement with the I.S.U. Media Resources Center, to better meet the needs of each organization. Since then, Media Resources has provided TV production personnel on a scheduled basis for veterinary television projects. In turn, MRC has gained access to the BMC studio facilities, and has received some assistance with equipment maintenance. Also, there has been a continuing effort to maintain equipment compatibility, so each unit can provide the other with backup in emergencies.

Much of the credit for this arrangement goes to Terry Henderson, who worked as a BMC part-timer before joining Media Resources four years ago. “The agreement gives both BMC and MRC what they need the most,” he explained. “Besides, it gives us all a chance to share production know how, and generally stay in touch.”

Steve Pendry agreed. “There’s just no way a veterinary college can afford to keep a television studio in continuous use, or hire enough people to fully staff a facility like ours. Most other veterinary schools which successfully produce videotape programs are working with their central campus media unit in one way or another. I think our arrangement with MRC is a good one.”

What’s in the future for veterinary television at Iowa State? “Smaller, lighter, more reliable cameras and recorders are certain to come,” Dave ventured, “and probably at a lower cost. The whole video field is growing so fast, it’s hard to predict what’s coming next . . . it’s just amazing what’s happening in technology.”

“I think the interaction between video equipment and computers has fantastic potential for education,” Steve remarked. “Getting away from the simple ‘start it and run it til it ends’ approach will really give students a chance to learn efficiently, on their own schedule, at their own pace. It’s really an exciting prospect.”

A trip through the College of Veterinary Medicine ten years from now will probably include a look at television systems unlike anything available today. But their purpose will be the same as those awkward black and white programs of the sixties: to provide students with a better understanding of some aspect of veterinary medicine.

STUDENT—FACULTY

Class of 1982

Ed and Mary Briles became the proud parents of Tyler Louis, born December 13, 1981.

A 9½ lb. baby boy, William Vincent, was born to Niles and Vicky Jennet in January, 1982.

Linda Shaw and Dr. James Thompson exchanged marriage vows on March 6, 1982 in Wayzata, Minnesota.

Tony Wendler and Becky Benjegerdes were married April 24, 1982 in Mason City, Iowa.

Class of 1983

Larry Elsken married Deb Gochenour on January 31, 1982.

Class of 1984

Jane Clark married Trace Soper on January 2, 1982.

Class of 1985

Jeffrey and Kathy Dietrich were the parents of a baby boy born September 25, 1981.