Live telecast and cardiac surgery - A note of caution

One of the most important methods of teaching surgical procedures has been live demonstration. A practice that is as old the profession itself. It is usually confined to one or two students, generally assistants at surgery who are trainees. Live demonstration may also be used when it is to a small gathering of professionals such as in a workshop. However there is usually no restriction of audience at such meetings and lay persons may be privileged to see heart operations as they are performed.

With improvements in communication technology and with the satellites such live images can be beamed across continents in real time. Most often such efforts are deliberately covered by the media. The hospital / surgeon in such cases attempts to showcase facilities / skills etc with the primary purpose of obtaining necessary publicity as also to attract patients. In recent times such live demonstrations have become very common. Major industrial partners join in to fund such live demonstration especially if their product is showcased. This trend has extended to major scientific conferences where under the banner of continuing medical education live demonstrations are brought to the halls from remote sites.

While all these developments are rapidly spreading and becoming an important inclusion to attract delegates and participants, it has also resulted in serious discussions on the ethical issues. There are many issues pertaining to live demonstrations and this editorial attempts to highlight these for the readers.

Live demonstrations generally introduce additional equipment, personnel into the operating room, raising the possibility of contamination. Modern operating rooms are equipped with cameras and monitors for live training for the staff. Connection of such outputs from the camera to an external location still needs equipment and personnel.

The surgical team is subject to a higher level of anxiety. Since the procedure and conversation are continuously recorded and beamed to other locations the surgical team necessarily becomes more cautious, alert and perhaps even quiet. Communication becomes restrained or restricted. The team's reactions to surgical emergencies, mishaps etc become blunted or improper. What is more important is that such mishaps are recorded and relayed to the audience who sometimes are horrified to see the scene.

Patients are not always aware that their surgery is being telecast live, no special consent is obtained, risks are not explained. Patients are also not always made aware of the operating surgeons reputation, abilities and results.

These and other ethical issues have been extensively discussed and the AATS/STS joint committee guidelines are reproduced here¹.

Guidelines for using the cardiothoracic operation as a teaching instrument (Reprinted with permission from Society of Thoracic Surgeons Ann. Thorac. Surg, august 2008; 86: 357-61)

1. When planning to record or broadcast an operation, surgeons must pay special attention to the needs and rights of the potential patient-subject.
 - a. A patient's informed consent for participating as a subject in a live or taped broadcast must be obtained directly by the operating surgeon.
 - b. The surgeon must disclose the fact of increased risks of harm to the patient and the uncertainty of the degree of such risks, as well as the composition and size of the audience and estimates of the potential educational benefits to participating surgeons.
 - c. The attending surgeon must take all necessary steps to protect the patient's privacy and to ensure confidentiality of all medical information.
2. Generally, recorded broadcasts, either edited or unedited, are preferable to live surgery broadcasts because recordings intended for later broadcast pose fewer risks of harm to patients.
3. Teaching surgical techniques by live surgery observation in the surgeon's home operating room is a time-honored, acceptable practice.
4. Surgeons should not participate in live surgery broadcasts to the public using any medium, including television and the Internet.
5. National and international cardiothoracic societies should consider prohibiting live surgery broadcasts to large audiences at their annual meetings.
6. Live surgery broadcasts to professional audiences of any size become progressively less acceptable with more rigid scheduling constraints, increasing complexity of the operation, decreasing educational value of the procedure, greater intensity of the surgeon's interaction with the audience, and less familiarity of the surgeon with the operating room environment. On these grounds, live surgery broadcasts are subject to the following conditions:

- a. Cardiothoracic surgeons should not participate in live surgery broadcasts when rigid broadcast schedules constrain the operation's starting time or duration or when a specific predetermined operation must be fit into a specific time frame. Operations selected for live surgery broadcasts are most acceptable when the operation focuses solely on a particular patient who has a condition that warrants live broadcast.
- b. Operations of greater educational value to the surgeons in the audience, relative to their clinical needs, should be chosen over operations of lesser educational value. Operations are inappropriate for live broadcast if intended to show that an operation *can be done* rather to demonstrate to others *how to do it*.
- c. Cardiothoracic surgeons should not participate in broadcasts of operations that have a major purpose of aggrandizement of the surgeon or of the surgeon's operating facility.
- d. The operating surgeon should be thoroughly familiar with and experienced in the procedure being broadcast and with the specific medical devices and tools being demonstrated.

Innovative operations and rare procedures that the surgeon has never or only occasionally performed previously should not be broadcast because they lack educational value and increase the need for the surgeon's undivided attention.

- e. Whenever possible, surgery should be broadcast from the surgeon's home operating room. When this is not possible, the operative facility should be configured as closely as possible to the surgeon's home operating room environment. Only highly experienced operating room staff who are fluent in the surgeon's preferred language should participate, preferably the surgeon's own staff. The surgeon must ensure that the video crew does not interfere with the progress of the operation, whether filming is intended for live or recorded broadcast.

- f. Because discussion with a remote audience during an operation may distract the surgeon, discussions should be one-way, from surgeon to audience. If a two-way discussion is demonstrably essential to the educational value, questions and comments from the audience should be controlled, for example, relayed through a moderator who alone can communicate with the surgeon.
 - g. Cardiothoracic surgeons should not participate in any capacity in live surgery programs that violate these guidelines.
 - h. The operating surgeon has a responsibility to ensure completion of the following requirements before each broadcast:
 - i. The operating facility, if not in the surgeon's home institution, should be suitable for the conduct of the operation to be broadcast.
 - ii. A preoperative conference should be held with the principal parties, including the operating surgeon and key medical and technical (filming) staff, to review the ethical guidelines and safety standards under which the operation will be performed.
 - iii. A reliable mechanism should be in place for the audience to receive follow-up reports on the outcome of the operation within 24 hours and the status of the patient 30 days after the broadcast.
7. Violation of these guidelines may lead to disciplinary action by Association/Society.

It is necessary for all participating surgeons to view this matter with the utmost seriousness that it deserves. It is best to adhere to these guidelines, to ensure patient safety, privacy and to avoid all mishaps and litigation.

Reference

1. Broadcast of surgical procedures as a teaching instrument in cardiothoracic surgery, Robert M. Sade, MD
American Association for Thoracic Surgery Ethics Committee and The Society of Thoracic Surgeons Standards and Ethics Committee *Ann Thorac Surg* August 2008; 86: 357–61.

A Sampath Kumar