

EDITORIAL COMMENT

Ethical Considerations of Live Case Transmissions*

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Live cases are the heart of teaching surgical and interventional techniques and advancing the practice and science of medicine. Today, the venue has changed because of developments in communication technology. We now have at our command real-time global access to live cases for both professional and lay audiences alike. New avenues are opened to expand training, to accelerate the diffusion of advances, to promote adoptions of innovations, to improve the quality of care (1) and to raise public awareness of newly available interventions.

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Nonetheless, professional groups and leaders have expressed reservations and even opposition to broadcasts of live cases, citing various ethical objections. The most substantive ethical objection has been the prospect of increased risk of harm to patients. The report of Franke et al. (2) in this issue of *JACC: Cardiovascular Interventions* addresses this consideration with strong data from a large number of cases of carotid stenting that show in selected situations outcomes similar to published results. Their findings run counter to an earlier published report of Chatelain et al. (3) and provide evidence to bolster a different perspective on the potential harms to patients in broadcast of live cases. The perspective represented in the report of Franke et al. responds to the objection that patient harm looms as a decisive objection to broadcast of live cases.

Focusing on this perspective is critical to reconciling 2 paramount imperatives of medicine: putting patient wellbeing above all other considerations; and furthering the art and science of medicine. Franke et al. (2) have assembled evidence supporting the view that patient wellbeing is not invariably jeopardized by the potential gains of using communication technology to achieve efficiencies in diffusion of innovations and advances in patient care. Risks specific to

the intrusive situation remain. Precautions are necessary to ensure that patient welfare and interests are not compromised, but putting a chill on using communication technology is unduly restrictive. The outcomes reported do not warrant prohibitions against pursuing responsible use of advances in communications to present live cases to broader audiences. Although some contend that the pressures on the operator in a live broadcast might provide a tension with a potential for negative effects on the conduct of the procedure, the report of Franke et al. (2) does not support that concern. It might as easily be argued that the live broadcast situation has the opposite effect on performance. Whether the drama of live broadcasts has an educational or other advantage over staged recording of procedures is still to be determined.

However, the results of the cases of carotid stenting reported ought not to be generalized as supporting live case broadcasts of interventions without qualification. News reports and press releases highlight examples of web transmission of live procedures designed to display hospital and clinic specialties as a means of attracting patients. A niche market has been identified to package productions for web transmissions of live procedures with no oversight as to qualifications of the performer, type of procedure, complexity of the case, or other clinical standards. Many of these transmissions might serve a purpose of some social benefit. But an obvious concern arises about the actual benefits to the patients involved and their valid long-term clinical and scientific value. Additionally, the potential audiences are not likely to appreciate the complexity and difficulty of what is presented, even if accompanied by informed commentary. Of course, freedom of speech makes it unlikely that effective oversight of content of these web live transmissions will ever be achieved. Still another set of issues is presented when the intervention might involve “off-label” use of a Food and Drug Administration–approved device or the demonstration uses an investigational device.

There is a widely accepted framework for ensuring ethical standards as we attempt to assimilate new technologies into the practice and science of medicine. *The Belmont Report* (4), issued in 1978 by the National Commission for the Protection of Human Subjects, articulated 3 basic principles that not only guide research activities but are also invaluable in addressing related issues in the field of medicine and health. The principles are: Respect for Persons; Beneficence; and Justice. As applied to the questions raised by the use of new communication technologies to achieve the aims of medicine, the principles direct us to 3 necessary systemic considerations: the patient; the process; and oversight of the activity.

The principle of justice calls for systemic oversight, whether by consensus of professional and specialist societies on standards for live case broadcast or recording or by authoritative independent bodies, such as the Institute of

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Medicine, charged with setting standards for these productions. At present, the prevailing *laissez-faire* approach fails to achieve accountability of the health care and medical fields to consistency with the aims of medicine. This is not to argue for controlling the legitimate and effective opportunities but to measure them against the conduct that professionals and health care organizations maintain in their fiduciary roles. Of course, the matter of the financial interests of the performing operator, the hospital, and the sponsors also needs to be scrutinized and any potential conflicts of interest disclosed and managed.

Respect for persons obliges us to weigh the effects on the patient of taking part in a live broadcast. The interventions to be selected for live transmissions should not be those of the highest risk or entirely novel. One must not use the opportunity to display outstanding skills or to exhibit untried techniques. Such an approach is not consistent with the fiduciary duties of the operator or with the aim of educating colleagues about interventions they can adopt in their own practices. A degree of risk remains in any procedure, but in expert and experienced hands, the risk is manageable and the difficulties of the procedures can be anticipated. Patients need to be informed if extra time or even exposure to possibility of infection or disruption exist with the addition of non-health care-trained individuals in the operating suite. The publicity attached to the event must be disclosed to the patient who needs to be informed that their case will be discussed and explained to others, even if their own identity is not revealed. Patients also need to be informed of the total plan for their care, both in preparation for the intervention and in follow-up.

The issues of informed consent pose special difficulties. Patients might feel they owe it to their physician to agree. In some cases, inducements have been offered to patients, such as lower cost or even—to those uninsured—the opportunity for needed care. How much of the process of transmission to an audience is appreciated by the patient is unclear.

The principle of beneficence in this application requires us to have independent review of the selection of the procedure, the patient selection process, the qualifications of the operator, and the timing and setting of the procedure. The organization sponsoring the transmission should have internal controls in accordance with established standards for sanctioning the transmission of the intervention. More

importantly, it is the clinical care of the patient that requires careful oversight of the process. Many specialists have insisted that follow-up care and monitoring of the patient involved in the procedure be disclosed, so that more than just a brief demonstration of technique or perioperative success is presented.

For the last 60 years the field of clinical and research bioethics has engaged the issues raised by these imperatives. The exploration has brought us to see that an acceptable risk/benefit ratio is a necessary but not sufficient criterion in assessing the ethics of science and medicine. Properly guided, new communication technologies offer unprecedented opportunities to expand training, to accelerate the diffusion of advances in surgery, to promote adoptions of innovations, to improve the quality of care, and to raise public awareness of newly available interventions. Whether the audiences are specialists hoping to acquire greater skills and learn of new ways to care for their patients or are members of the public hoping to keep abreast of medical advances and their benefits, properly managed live broadcasts have a significant role in furthering the aims of medicine.

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