

Telemedicine: A Proposal for an Ethical Code

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Telemedicine encompasses medical practice, teaching, and research with real-time interactions over distances too great for unaided communication. It includes audio and video transmissions, either separately or combined, and can be done through mechanical (e.g., signal flags or lights) or electronic means (e.g., telecommunications). In many ways, telemedicine is a subset of medical informatics, itself a rapidly developing field. Prior definitions have been broader, including not only medical practice over distance, but also simple information transfer.

As with many other new medical technologies, telemedicine has been put into service while it is still being evaluated for efficacy and safety. Its most common use at present is still consultation via telephone and the emergency medical system radios. By the time we understand many of the benefits and problems associated with telemedicine, technology will have stretched its reach far beyond current expectations and telemedicine practice will have become, for better or worse, an integral part of biomedicine.

Over the next decade, telemedicine promises to be one of the fastest growing medical areas. Many physicians, nurse practitioners, physician assistants, and technical experts will soon devote most or all of their time to delivering telemedical services. Yet little has been written about the ethical impli-

cations of this powerful and dynamic technology.¹⁻⁴

While telemedicine's exact future still remains partially obscured behind the hazy mists of future developments, we must look at the ethical implications of using the technology now. By doing this, we attain three goals: (1) we can have reasoned discussions before the technology is so entrenched that it cannot be easily changed and before the vested interests are so strong that finance outweighs reason; (2) we can seek the optimal ways to attain telemedicine's benefits for patients and practitioners; and (3) we can find ways to advance the technology while avoiding potential pitfalls that may corrupt and diminish our profession and our society.⁵ In the past, we have made the mistake of rushing to adopt technologies without thinking through their moral implications. This time, we have the time to reflect—but not much time.

One way to examine telemedicine's ethical implications is to propose specific virtues for the telemedicine practitioner, teacher, or researcher. The following proposed oath for telemedicine practitioners is based on the ethics of personal virtues, best known through Aristotle's *Nicomachean Ethics*. While the virtues included are specific, the oath is not only applicable for current technology and practices, but also for those that have not yet been implemented, developed, or even foreseen.

Proposal for a Telemedicine Practitioner's Oath

As a telemedicine practitioner and user, I commit myself to:

DOING GOOD. I will . . .

- Advance the responsible use of telemedicine to benefit patients and society.
- Respond to consult requests in a timely manner.
- Make telemedicine information available to others caring for the telemedicine patient.
- Encourage appropriate oversight, credentialing, and licensing of telemedicine practitioners.
- Ensure that all personnel, including nonphysician providers and technicians, are adequately supervised and have the competence and qualifications to work in a telemedicine system.
- Assure that information and data transmissions consistently are of the highest possible quality.

BEING FAIR. I will . . .

- Work with medical societies, government organizations, and health-care systems to promote wide access to telemedicine services for those areas in need of them.
- Give telemedicine patients at least the same priority as the same patients would get in more traditional treatment systems.
- Provide telemedicine services without charge to those who cannot pay.
- Provide telemedicine services and information without regard for a receiving practitioner's or patient's race, creed, or nationality.

MAINTAINING INTEGRITY. I will . . .

- Deal honestly with patients, colleagues, technical personnel, and

others involved in the telemedicine community.

- Only promote telemedical services to those who need them.
- Not use telemedicine services to promote unnecessary transfers to the base institution.
- Transmit patient treatment information only to those who have the capability of carrying out the necessary interventions or assuring safe and reliable patient transfers.
- Reject exorbitant reimbursement for telemedicine services or any kickbacks for getting or giving referrals.

RESPECTING OTHERS. I will . . .

- Preserve patients' rights to privacy.
- Guarantee that except in emergencies, patients will be given adequate information before and will be able to voluntarily participate in, telemedical consultations. (Practitioners may independently ask for assistance without disclosing identifying patient information.)
- Recognize that physician-patient relationships exist when doing a telemedicine consultation for specific patients.
- Protect patients' confidentiality during the consultation; of any records made, transmitted or stored; and in subsequent interactions.

DOING NO INTENTIONAL HARM. I will . . .

- Not use knowledge or capabilities of telemedicine to cause harm.
- Give only advice of which I am certain, admit when I lack sufficient knowledge or information, and be willing to direct recipients to other sources if necessary.
- Use the information provided to me from telemedicine practition-

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ers in a responsible manner, not overstating my capabilities or my understanding of the facts.

- Not abuse my position of power and authority as a telemedical practitioner.
- Interact responsibly with my patients and colleagues.
- Work with medical societies, government organizations, and health-care systems to provide methods for preserving and maintaining the integrity and availability of patient data, despite future system changes.

TEACHING OTHERS AND ADVANCING THE SCIENCE. I will . . .

- Use telemedical resources to help other practitioners acquire new knowledge, learn new skills, and maintain their levels of expertise.
- Teach others the art and science of telemedicine.
- Encourage the development of new beneficial uses and techniques in telemedicine.

INSURING APPROPRIATE OVERSIGHT. I will . . .

- Personally use and encourage medical societies and professional oversight boards to enforce a recognized standard of telemedical care.
- Promptly report any misuse of telemedical services.
- Help assure that the safety and efficacy of new telemedical systems are evaluated before they are widely used.

HAVING COMPASSION. I will . . .

- Have understanding for the plight of patients and practitioners with whom I come in contact.

Examining this ethical code allows us to better answer the following questions: Are these the standards we need to use telemedicine to practice and teach? Would we want to subscribe to these virtues? Are they the safeguards our profession and patients will need as we continue to pursue and implement this technology?

We have opened the genie's bottle (or the Pandora's box) of telemedicine. Before we proceed further, we owe it to ourselves, our professions, and our patients to set ethical standards to guide our future as we use this powerful technology. Doing so may enable us to answer, for telemedicine, a basic question of modern bioethics: *Just because we can, should we?*

Notes

1. Goodman KW: Bioethics and health informatics: an introduction. In: Goodman KW, ed. *Ethics, Computing, and Medicine: Informatics and the Transformation of Health Care*. New York: Cambridge University Press, 1998:1-31.
2. Norton SA, Lindborg CE, Delaplain CB. Consent and privacy in telemedicine. *Hawaii Medical Journal* 1993;52(12):340-1.
3. Mandl KD, Kohane IS, Brandt AM. Electronic patient-physician communication: problems and promise. *Annals of Internal Medicine* 1998;129:495-500.
4. Stanberry B. The legal and ethical aspects of telemedicine. *Journal of Telemedicine and Telecare* 1998;4(Suppl. 1):95-7.
5. Iserson KV, Adams J, Cordell WH, Graff L, Halamka J, Ling L, et al. Academic emergency medicine's future. *Academic Emergency Medicine* 1999;6(2):137-44.