

# AMIA's Code of Professional and Ethical Conduct

Kenneth W Goodman,<sup>1</sup> Samantha Adams,<sup>2</sup> Eta S Berner,<sup>3</sup> Peter J Embi,<sup>4</sup> Robert Hsiung,<sup>5</sup> John Hurdle,<sup>6</sup> Dixie A Jones,<sup>7</sup> Christoph U Lehmann,<sup>8</sup> Sarah Maulden,<sup>9</sup> Carolyn Petersen,<sup>10</sup> Enrique Terrazas,<sup>11</sup> Peter Winkelstein<sup>12</sup>

<sup>1</sup>Ethics Programs, University of Miami, Miami, Florida, USA

<sup>2</sup>Department of Healthcare Policy and Management, Erasmus University Rotterdam, Rotterdam, The Netherlands

<sup>3</sup>Department of Health Services Administration, University of Alabama at Birmingham, Birmingham, Alabama, USA

<sup>4</sup>Biomedical Informatics, The Ohio State University, Columbus, Ohio, USA

<sup>5</sup>Chicago, USA

<sup>6</sup>Biomedical Informatics, University of Utah, Salt Lake City, Utah, USA

<sup>7</sup>Medical Library Science, Louisiana State University Health Sciences Center, Shreveport, Louisiana, USA

<sup>8</sup>Pediatrics, Johns Hopkins University School of Medicine, Baltimore, Maryland, USA

<sup>9</sup>Department of Veterans Affairs, Salt Lake City, Utah, USA

<sup>10</sup>Global Products & Services, Mayo Clinic, Rochester, Minnesota, USA

<sup>11</sup>Department of Laboratory Medicine, University of California, San Francisco, California, USA

<sup>12</sup>Department of Pediatrics, University at Buffalo, Buffalo, New York, USA

## Correspondence to

Professor Kenneth W Goodman, Ethics Programs, University of Miami, POB 016960 (M-825), Miami, FL 33101, USA; kgoodman@med.miami.edu

Received 16 April 2012

Accepted 16 May 2012

Published Online First

25 June 2012

## INTRODUCTION

AMIA, as other professional societies, has a long-standing interest in promoting a strong ethical framework for its membership. This white paper presents the latest AMIA Code of Professional and Ethical Conduct. It was approved in November of 2011 by the AMIA Board of Directors. This document constitutes a revision of, and update to, the first code, approved and published in *J Am Med Inform Assoc*<sup>1</sup> in 2007. In an effort to keep pace with the field's vitality, the code presented here is intended to be a dynamic document, and will continue to evolve as AMIA and the field itself evolve. AMIA will publish on its web site this version of the code as part of a process that seeks ongoing response from, and involvement by, AMIA members.

The code is meant to be practical and easily understood, so it is compact and uses general language. Unlike the ethics codes of some professional societies, the AMIA code is not intended to be prescriptive or legislative; it is aspirational, and as such, provides the broad strokes of a set of important ethical principles especially pertinent to the field of biomedical and health informatics. The code is organized around the common roles of AMIA members and the constituents they serve—including patients, students, and others—and with whom they interact. The AMIA Board and the AMIA Ethics Committee encourage members to offer suggestions for improvements and other changes. In this way, the code will continue to progress and best serve AMIA and the larger informatics community.

Codes of ethics for professionals present special challenges in conception and execution. The goal of this code is to lay out the core values of this profession in a way that inspires AMIA members to acknowledge and embrace these values. While the crafting of the code involved many hours of debate about content and scope, the intent is to produce a document which itself does not engender controversy.

The code's authors are aware that all professionals will, from time to time, find themselves in situations shaped by what has been called "dual agency" or "multiple agency." In these circumstances, a professional encounters conflicting duties or loyalties. An informatics professional may have conflicting duties to patients, to colleagues, to society, and to an employer. Few, if any, codes of ethics are nimble enough to provide guidance in such situations. AMIA members have an Ethics

Committee which can provide guidance in some circumstances.

AMIA members are professionally diverse,<sup>2</sup> and include those who are, or are in training to be, nurses, physicians, computer scientists, and others. In many cases, these professions have ethics codes.<sup>3–10</sup> The International Medical Informatics Association, an international federation for which AMIA serves as the US representative organization, also has a "Code of Ethics for Health Information Professionals."<sup>11</sup>

This document does not address—but explicitly incorporates—issues covered by other documents and laws bearing on ethics and professional conduct:

- ▶ AMIA's "Conflict of Interest Policy,"<sup>12</sup> which governs the organization's employees and leaders as regards some of their financial and other interactions with outside entities.
- ▶ The International Committee of Medical Journal Editors' "Uniform Requirements for Manuscripts Submitted to Biomedical Journals."<sup>13</sup> This document is widely accepted as identifying standards for publication and authorship, and is paralleled by the "editorial policies" for the publisher of *J Am Med Inform Assoc*, the BMJ Group.<sup>14</sup>
- ▶ Privacy laws. Several sections herein address patient privacy or the rights of patients to view, and control access to, their health information, and these are intended to parallel and make explicit duties under the law. In the USA, for instance, the Privacy Rule under the Health Insurance Portability and Accountability Act,<sup>15</sup> and as amended, lays out many duties for those who are entrusted with health information. Many other countries have similar laws to protect patient data. Informatics professionals are expected to be familiar with and follow the laws governing their practice.

Members of the Ethics Committee are unanimous in the view that those who work in informatics—much as in other health professions—are duty-bound to embrace a patient-centered approach to their work, even if that work does not involve direct patient care or human subjects research. As elsewhere in the health professions, vulnerable populations or those with special needs may be entitled to additional considerations.

The importance of professionalism and ethics has been recognized for millennia by health professionals and organizations, now including information technology professionals. This code of ethics makes clear AMIA's commitment.

## Principles of professional and ethical conduct for AMIA members

As a member of AMIA, I acknowledge my professional duty to uphold the following principles of, and guidelines for, ethical conduct.

I. Key ethical guidelines regarding patients, guardians and their authorized representatives (called here collectively “patients”).

A. Given that patients have the right to know about the existence and use of electronic records containing their personal healthcare information, AMIA members involved in patient care should:

1. Not mislead patients about the collection, use, or communication of their healthcare information;

2. Enable and—as appropriate, within reason and the scope of their position and in accord with independent ethical and legal standards—facilitate patients’ rights to access, review, and correct their electronic healthcare information. Further, they should:

B. Advocate and work as appropriate to ensure that health and biomedical information is acquired, stored, analyzed and communicated in a safe, reliable, secure and confidential manner, and that such information management is consistent with applicable laws, local policies, and accepted informatics processing standards.

C. Never knowingly disclose biomedical data in violation of legal requirements or accepted local confidentiality practises, or in ways that are inconsistent with the explanation of data disclosure and use previously given to the patient. AMIA members should understand that inappropriate disclosure of biomedical information can cause harm, and so should work to prevent such disclosures. Likewise, even if an action does not involve disclosure, one should not use patient data in ways inconsistent with the stated purposes, goals, or intentions of the organization responsible for these data—except as appropriate for approved research, public health or reporting as required under the law.

II. Key ethical guidelines regarding colleagues. AMIA members should:

A. Endeavor, as appropriate, to support and foster colleagues’ and/or team-members’ work in a timely, respectful, and conscientious way to support their roles in healthcare and/or research and education;

B. Advise colleagues and others, as appropriate, about actual or potential information or systems issues (including system flaws, bugs, etc) that affect patient safety or could hinder colleagues’ ability to discharge responsibilities to patients, other colleagues, involved institutions, or other stakeholders;

C. If a leader:

1. Be familiar with these guidelines and their applicability to your practise, unit or organization;

2. Communicate as appropriate about these ethical guidelines to those you lead;

3. Strive to promote familiarity with, and use of, these ethical guidelines.

III. Key ethical guidelines regarding institutions, employers, business partners and clients (called here collectively “employers”). AMIA members should:

A. Understand their duties and obligations to current and former employers and fulfill them to the best of their abilities within the bounds of ethical and legal norms.

B. Understand and appreciate that employers have legal and ethical rights and obligations, including those related to

intellectual property. Understand and respect the obligations of their employers, and comply with local policies and procedures to the extent that they do not violate ethical and legal norms.

C. Inform the employer and act in accordance with ethico-legal mandates and patient rights when employer actions, policies or procedures would violate ethical or legal obligations or agreements made with patients. AMIA’s Ethics Committee might be a resource in such cases.

IV. Key ethical guidelines regarding society and regarding research. AMIA members involved in research should:

A. Be mindful and respectful of the social or public-health implications of their work, ensuring that the greatest good for society is balanced by ethical obligations to individual patients. Seek the advice of institutional ethics committees, AMIA’s Ethics Committee or appropriate institutional review boards, as necessary.

B. Strive as appropriate in the context of one’s position to foster the generation of knowledge and biomedical advances through appropriate support for ethical and institutionally approved research efforts.

C. Know and abide by the applicable governmental regulations and local policies that define ethical research in their professional environment.

V. General professional and ethical guidelines. AMIA members should:

A. Maintain competence as informatics professionals;

1. Recognize technical and ethical limitations and seek consultation when needed;

2. Obtain applicable continuing education;

3. Contribute to the education and mentoring of students and others, as appropriate for job function.

B. Strive to encourage the adoption of informatics approaches supported by adequate evidence to improve health and health-care; and to encourage and support efforts to improve the amount and quality of such evidence.

C. Be mindful that their work and actions reflect on the profession and on AMIA.

## CONCLUSION

As a matter of personal and professional integrity, adherence to the principles laid out here is expected of all who have the privilege of serving in the field of biomedical and health informatics. While the cornerstone values of professional integrity do not vary among the professions, those whose skills allow them to contribute in one way or another to the health of individuals and populations may be said to have additional responsibilities, and perhaps higher duties.

**Acknowledgments** The authors and the AMIA Ethics Committee would like to thank the AMIA Board of Directors for its continuing interest in refining and publishing these guidelines. Kristin Schelin, AMIA’s Director of Operations and Programs, provided invaluable support to the Ethics Committee in its work. Comments on the first version of the code were provided by Dan Stein and Kristina Thomas. Members of the AMIA Ethics Committee who contributed to the first version of the code in 2007 include Mureen Allen, MSBS, MS, MA, Joseph Catapano, MD, Oscar Gyde, MD, Carol Hope, PharmD, and Helga Rippen, MD, PhD, MPH. Also, Jane Brokel, PhD, RN, and Betty Chang, DNSc, RN, were authors of the 2007 version and are not otherwise listed here. This version of the code also owes much to members of AMIA’s Ethical, Legal and Social Issues (ELSI) Working Group, chaired during the code revision process by Bonnie Kaplan, PhD.

**Competing interests** None.

**Provenance and peer review** Not commissioned; internally peer reviewed.

## REFERENCES

1. **Hurdle JF**, Adams S, Brokel J, *et al*. White paper: a code of professional ethical conduct for the American Medical Informatics Association: an AMIA Board of Directors approved white paper. *J Am Med Inform Assoc* 2007;**14**:391–3.
2. **Hersh W**. Viewpoint paper: who are the informaticians? What we know and should know. *J Am Med Inform Assoc* 2006;**13**:166–70.
3. **American Nurses Association**. *Code of Ethics for Nurses*. 2001. <http://www.nursingworld.org/MainMenuCategories/EthicsStandards/CodeofEthicsforNurses.aspx> (accessed 31 Jul 2011).
4. **American College of Physicians**. *Ethics Manual*. 2005. [http://www.acponline.org/running\\_practice/ethics/manual/](http://www.acponline.org/running_practice/ethics/manual/) (accessed 31 Jul 2011).
5. **American Health Information Management Association**. *American Health Information Management Association Code of Ethics*. 2004; On-line version of the AHIMA Code of Ethics. [http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1\\_024277.hcsp?dDocName=bok1\\_024277](http://library.ahima.org/xpedio/groups/public/documents/ahima/bok1_024277.hcsp?dDocName=bok1_024277) (accessed 14 Aug 2011).
6. **Association of Computing Machinery**. *ACM Code of Ethics and Professional Conduct*. 1992. <http://www.acm.org/constitution/code.html> (accessed 14 Aug 2011).
7. **Healthcare Information and Management Systems Society**. *Code of Ethics*. 2002. [http://ethics.iit.edu/indexOfCodes-2.php?key=13\\_375\\_1324](http://ethics.iit.edu/indexOfCodes-2.php?key=13_375_1324) (accessed 14 Aug 2011).
8. **Association of Internet Researchers**. *Ethical decision-making and Internet Research*. 2002. <http://aoir.org/reports/ethics.pdf> (accessed 13 Aug 2011).
9. **Medical Library Association**. *Code of Ethics for Health Sciences Librarianship*. 2010. <http://www.mlanet.org/about/ethics.html> (accessed 15 Sep 2011).
10. **Illinois Institute of Technology**. *Codes of Ethics Online*. 2011. [http://ethics.iit.edu/codes/codes\\_index.html](http://ethics.iit.edu/codes/codes_index.html) (accessed 14 Aug 2011).
11. **International Medical Informatics Association**. *IMIA Code of Ethics for Health Information Professionals*. 2002; On-line version of the IMIA Code of Ethics. <http://www.imia-medinfo.org/new2/node/39> (accessed 16 Aug 2011).
12. **AMIA**. *Conflict of Interest Policy*. 2011. <http://www.amia.org/about-amia/bylaws-and-policies/conflict-interest-policy> (accessed 31 Jul 2011).
13. **International Committee of Medical Journal Editors**. Uniform requirements for manuscripts submitted to biomedical journals: writing and editing for biomedical publications. 2010. <http://www.icmje.org/> (accessed 31 Jul 2011).
14. **BMJ Group**. *Editorial Policies*. 2011. <http://group.bmj.com/products/journals/instructions-for-authors/editorial-policies/> (accessed 31 Jul 2011).
15. *Health Insurance Portability and Accountability Act of 1996 (Public Law 104–191)*. <http://aspe.hhs.gov/admsimp/pl104191.htm> (accessed 13 Aug 2011).