

# Bioethics for clinicians: 25. Teaching bioethics in the clinical setting

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## Abstract

BIOETHICS IS NOW TAUGHT IN EVERY CANADIAN MEDICAL SCHOOL. Canada needs a cadre of teachers who can help clinicians learn bioethics. Our purpose is to encourage clinician teachers to accept this important responsibility and to provide practical advice about teaching bioethics to clinicians as an integral part of good clinical medicine. We use 5 questions to focus the discussion: Why should I teach? What should I teach? How should I teach? How should I evaluate? How should I learn?

As he reviews the curriculum for his surgical residency training program, Dr. B is concerned about how to prepare his residents to “gain understanding ... of biomedical ethics as it relates to the specialty,”<sup>1</sup> and to use their understanding to improve patient care. Last year he invited a moral philosopher to give a guest lecture, but the residents’ evaluations were unfavourable: “a waste of our time,” “not relevant to the problems we face.” Recently, the residents and nurses were troubled by a difficult situation on the ward: Mr. J, a 46-year-old patient, was found to have unresectable pancreatic cancer, but his wife insisted that the staff withhold the diagnosis from him because he is prone to depression. Dr. B wonders whether this situation could serve as a learning opportunity for the residents and staff and whether he should try to lead a seminar about this problem. He pages the chief resident.

Bioethics is now taught in every Canadian medical school. The College of Family Physicians of Canada and the Royal College of Physicians and Surgeons of Canada require residency training programs to teach bioethics as a condition of accreditation,<sup>1</sup> and there is increasing interest in bioethics in continuing medical education. Canada needs a cadre of teachers who can help clinicians learn bioethics, which is an inherent aspect of good clinical medicine.<sup>2</sup> Our purpose here is to encourage clinician teachers to accept this important responsibility and to provide them with practical advice. Teaching bioethics to clinicians such as nurses, physiotherapists, physicians, residents and medical students is facilitated by using a clinical approach. Working with physicians in training and with their clinical teachers, we have developed a practical approach that we outline here by answering 5 questions: Why should I teach? What should I teach? How should I teach? How should I evaluate? How should I learn?

## Why should I teach?

The primary goal of teaching ethics to clinicians is to enhance their ability to care for patients and families at the bedside and in other clinical settings. The goal is not to build character or instil virtues, although reinforcement in these areas may occur as a secondary benefit. Dealing effectively with an ethical problem depends on recognizing the ethical issue, applying relevant knowledge, analyzing the problem, deciding on a course of action and implementing the necessary steps to improve the situation.<sup>2</sup> Clinicians confront ethical problems in a charged public setting, where their values and beliefs and those of their patients may not be congruent.<sup>3</sup> Enhancing clinicians’ knowledge and skills in resolving ethical quandaries can increase their ability to deal with issues that cause moral distress and thus enable better team and institutional performance in caring for patients.

We favour enlisting interested and respected clinicians as primary teachers of

## Review

## Synthèse

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bioethics and encouraging them to pursue additional training in ethics. Their expressed values and approach to ethical problems will penetrate widely as part of the informal but powerful cultural network that has been described as the hidden<sup>4</sup> or informal<sup>5</sup> curriculum. Bioethicists, moral philosophers, chaplains and other non-clinicians are valuable collaborators in presenting the clinical ethics curriculum, who enrich and illuminate the educational experience; however, in our view, they should not displace the clinical teacher.<sup>6,7</sup> Unlike other students of ethics, clinician learners are “doers” who acquire knowledge for its usefulness in their active work with patients; in our experience, they respond better to clinician role models as teachers than to those whose understanding of ethical issues is based on more abstract knowledge. Clinician teachers’ credibility in the biomedical aspects of care and their unchallenged passport into the clinical domain make them ideal communicators of the ethics curriculum.

## What should I teach?

Clinicians in most disciplines regularly deal with a common set of ethical issues such as truth telling, consent, capacity, substitute decision-making, confidentiality, conflict of interest, end-of-life issues, resource allocation and research ethics. These topics are well suited to an introductory bioethics teaching program. Lesson plans for teaching these topics, including teaching cases, discussion questions, suggested answers, summaries and references, are included in the curricular modules prepared for the Royal College of Physicians and Surgeons of Canada Bioethics Education Project ([rcpsc.medical.org/english/ethics](http://rcpsc.medical.org/english/ethics)). We use these modules for introductory teaching of bioethics in the first and second years of residency training at the University of Toronto. Cases that focus on the management of problems that are specific to a particular clinical discipline are effective in specialty conferences. For example, psychiatrists will be attracted to an analysis of the issue of justice in the treatment of disabled people. Urologists may find more salience in the case in which a family demanded postmortem sperm aspiration and in vitro fertilization of a surviving partner as a condition for organ donation.<sup>8</sup>

Discussion of these topics offers an opportunity to deepen the discourse with clinicians about the humanistic and holistic aspects of medicine that are an important part of a well-rounded medical education.

What *not* to teach: Resist the temptation to teach theory unrelated to cases, particularly at the start. Clinicians want to learn the right thing to do and how to do it; they will learn the theoretical background that guides the ethical decision-making process when they see its applicability to making good decisions.

## How should I teach?

Because it is most closely linked to patient care, bioethics should ideally be taught at the bedside or in the

clinic. We are unaware of models for bedside teaching of bioethics or systematic evaluation of its effectiveness, and the uneven and hectic pattern of clinical medicine limits the predictability of bedside and clinic teaching. Nevertheless, we encourage clinician teachers to innovate and expand on this potent pedagogical experience.

Case-based conferences provide an alternative method that is also closely linked to clinical care. Clinicians learn well when they are actively involved in case discussions.<sup>9</sup> We recommend taking advantage of this in teaching both the practical and theoretical aspects of bioethics. A problem case captures the interest of the clinical audience. The discussion that follows the case presentation provides a broader exposition of pertinent theory and empirical evidence. It closes with a return to the case. Resolution is achieved by using the definitions, principles and reasoning introduced during the discussion to clarify the best options for management. This time-honoured format is followed in the Royal College of Physicians and Surgeons of Canada Bioethics Curricula ([rcpsc.medical.org/english/ethics](http://rcpsc.medical.org/english/ethics)) and the *CMAJ* Bioethics for Clinicians series ([www.cma.ca/cmaj/series/bioethic.htm](http://www.cma.ca/cmaj/series/bioethic.htm)).

When presenting clinical cases, whether on paper or in video format, clinician teachers can use interactive techniques by asking participants to tell how they would manage the case, explain the reasoning that led them to their position and describe their approach to mediating the conflicts inherent in the case. Standardized patients or role-playing intensifies the experience for medical students and junior residents; more experienced clinician learners are less engaged by this approach. Cases that have caused some measure of moral anguish to the clinicians are especially effective. The strong feelings revived at morbidity and mortality conferences make this a powerful, formative learning experience, vividly remembered by residents and other clinicians exposed to this tradition.<sup>10</sup>

Many clinical medical ethicists recommend the presentation of clinical cases using 4 main headings: medical indications, patient preferences, quality-of-life issues and contextual features.<sup>2</sup> This analytic framework is helpful for identifying issues that require ethical analysis and resolution. Like the “review of systems” in an Oslerian clinical history, it provides structure and reminds students of important but less bioscientific aspects of the case that should be considered in the ethical analysis. One of us (M.F.M.) uses a modified form of this analytic tool for case-based teaching (Fig. 1).

If Dr. B chooses to use this approach in a facilitated discussion of the case of Mr. J, he might first ask the residents to provide information on the following:

- *Medical factors:* How do we make the diagnosis of pancreatic cancer preoperatively? What intraoperative findings preclude resection? What are the treatment alternatives? What is the survival rate and prognosis?
- *Preferences:* Do patients really want detailed scientific explanations of the extent of their disease? Do family members feel that they can protect the patient from de-

spair or disappointment by dissembling? Why do science-based medical team members insist on disclosure?

- *Quality of life:* Discussion might focus on the quality of residual life, the psychological harm from deception, loss of confidence in physicians who mislead, and deprivation of the patient's opportunity to settle emotional as well as financial accounts, or to realize deferred personal goals.
- *Contextual features:* What are the unique psychological or social factors particular to the patient that might justify an exception to the general recommendation that truth telling is the best policy? Cultural beliefs about the harm from disclosure of a diagnosis of terminal illness might be elicited from the residents.

In contrast to the "review of systems" approach in the model by Jonsen, Siegler and Winslade,<sup>2</sup> experienced clinician teachers often use problem-specific frameworks to organize their thinking. Experienced clinicians have a specific approach to common clinical problems; for example, rather than a single framework (i.e., a type of Starling curve) to diagnose and treat all cardiology problems, they use individual frameworks for common paradigm cases such as heart failure, coronary artery disease and arrhythmias. Similarly, experienced bioethics teachers can use paradigmatic frameworks for analyzing truth telling, consent, end-of-life issues, priority setting and other common ethical problems. These frameworks are embedded in the Royal College's Bioethics Curricula ([rcpsc.medical.org/english/ethics](http://rcpsc.medical.org/english/ethics)) and the *CMAJ* Bioethics for Clinicians series ([www.cma.ca/cmaj/series/bioethic.htm](http://www.cma.ca/cmaj/series/bioethic.htm)). In the scenario faced by Dr. B, the paradigm would be truth telling.<sup>11</sup> There are specific arguments to use in conversations with patients and families about telling the truth, such as: Mr. J needs time to prepare for death; he may know anyway; when he finds out, he will lose faith in his care team; and he has the right to know. If these arguments fail to convince Mr. J's wife, an intermediate strategy between withholding the truth and burdening the patient with the truth is to "offer truth,"<sup>12</sup> that is, explicitly ask him if he would like his wife to handle all the medical information or to learn of the medical findings himself directly from his physician.

Small group conferences allow clinicians to develop their skills through active participation in discussion. The

<p><b>Medical factors</b></p> <p>Diagnosis Treatment Prognosis</p>	<p><b>Preferences</b></p> <p>Patient Family Team</p>
<p><b>Quality of life</b></p> <p>Before During After</p>	<p><b>Context</b></p> <p>Support system Cost, availability Special circumstances</p>

Fig. 1: An approach used for case-based teaching of clinical and ethical decision-making. Based on information in Jonsen et al.<sup>2</sup>

large group lecture is a less effective venue, although gifted teachers can be effective, even in this format, if they can evoke the emotional responses associated with important prior clinical experiences of the audience. Debates introduce humour, tension and active learning; they may increase the intensity of vicarious participation in the larger group format, if they focus on "what should we do?" The learning experience is most intense for the debaters, but requiring members of the audience to take a stand, vote and defend their position increases their participation and active learning. Well-informed individuals in the audience who have completed assigned reading can help to enliven the debate and stimulate other members of the larger group to become better informed. Residents respond well to this form of peer learning pressure.

## How should I evaluate?

In-training evaluation reports (ITERs), a well-established method of evaluation in residency training programs in Canada, record the discussion of performance between teachers and their clinician trainees. ITERs are a valuable source of feedback to residents about their clinical performance, and a reminder to program directors of the domains of performance that should be evaluated. Adding an ethics domain to the ITER emphasizes to both the teacher and the learner that ethics is important. Turnbull and colleagues<sup>13</sup> have provided helpful advice on how to use the ITER process effectively; their recommendations may be applied to bioethics. To our knowledge, the ITER has not been evaluated in relation to bioethics. Innovative methods to get feedback from patients and other members of the health care team may be particularly applicable to bioethics.

Chart audits can measure clinical performance. Many aspects of performance with respect to ethical issues may not be recorded in the chart because of the customary telegraphic recording of bioscientific aspects of patient care in hospital records. Despite this limitation, Sulmasy and colleagues<sup>14</sup> used chart audits as a method of evaluating the impact of bioethics teaching on residents' performance. Their study demonstrated that bioethics education improved clinician learners' performance in writing and clarifying do-not-resuscitate orders.

Objective structured clinical examinations (OSCEs), using standardized patients, are also used to evaluate clinical performance. We have conducted studies using OSCEs with standardized patients for evaluating bioethics performance.<sup>15,16</sup> This method is feasible and has adequate inter-rater reliability, content validity and construct validity. However, as with OSCEs for other specific topics, it shares the problem of low internal consistency; a reliable estimate of bioethics performance would require more OSCE stations than is feasible in most settings.

Multiple-choice written examinations, although limited in value, are accepted as reliable methods of evaluating clinical knowledge and judgement. However, they may be better

suited to evaluating bioscientific aspects of medicine than the value-based judgements and reasoning processes that characterize ethical discourse. Other evaluative formats such as short-answer or essay questions are commonly used in undergraduate and graduate bioethics teaching. A reasonable strategy would be to combine the reliability of these methods with the validity of some of the methods described earlier.

In addition to measuring learners' performance, process measures evaluating a bioethics teaching program also describe the number of teaching sessions, the topics, the teaching materials distributed, the number of participating clinicians, the clinicians' critique of the content and method, and the learners' evaluations of the session. This record will be helpful when accreditors ask, "How are you teaching bioethics?"

## How should I learn?

Teaching bioethics to clinicians is a specialized skill, but one that is not difficult to learn for clinicians who are already effective teachers. The content material for learning bioethics is available to teachers and students on the World Wide Web and in journals, books, conferences and educational programs adapted to their needs. The following is a partial list of resources that may be helpful to clinicians who are interested in bioethics. We welcome suggestions of other programs and resources that may be helpful to readers in this evolving field.

### Resources

- The Royal College of Physicians and Surgeons Bioethics Education Project ([rcpsc.medical.org/english/ethics](http://rcpsc.medical.org/english/ethics)) provides curricular modules for teaching bioethics to residents in medicine, surgery, obstetrics and gynecology, psychiatry and pediatrics. The College of Family Physicians of Canada has prepared a bioethics curriculum that is available on its Web site ([www.cfpc.ca/biocur.htm](http://www.cfpc.ca/biocur.htm)).
- The Canadian Bioethics Society holds an annual meeting, which is a good place to meet other people interested in bioethics in Canada. Its Web site ([www.bioethics.ca](http://www.bioethics.ca)) details information about the meeting and provides links to university bioethics centres and bioethics organizations throughout Canada. The American Society for Bioethics and Humanities also hosts an annual meeting and offers multiple resource links on its Web site ([www.asbh.org](http://www.asbh.org)). Those with international interests may want to consult the International Association of Bioethics Web site ([www.uclan.ac.uk/facs/ethics/iab.htm](http://www.uclan.ac.uk/facs/ethics/iab.htm)); this association hosts a biannual meeting, which is a good venue for meeting colleagues from around the world.
- A number of short introductory intensive courses in bioethics and topic-specific conferences are announced on the various Web sites. These provide clinicians with an excellent opportunity to increase their knowledge, skills, and contacts in bioethics.
- More extensive educational programs that are accessible to clinicians while they continue their professional work include the Alberta Provincial Health Ethics Network Distance Education Course: Introduction to Bioethics ([www.phen.ab.ca/disted/main.html](http://www.phen.ab.ca/disted/main.html)) and the MHSc Bioethics Program at the University of Toronto Joint Centre for Bioethics ([www.utoronto.ca/jcb/Education/mhsc.htm](http://www.utoronto.ca/jcb/Education/mhsc.htm)), which provides formal graduate training to clinician teachers.
- Most Canadian universities offer, or are developing, educational programs in bioethics; these may be accessible through bioethics centres or through the faculties of medicine, philosophy, theology or law.
- Canadian university bioethics Web sites accessible at the time this article was written include: Dalhousie University Department of Bioethics ([www.mcms.dal.ca/bioethics](http://www.mcms.dal.ca/bioethics)), Groupe de recherche en bioéthique et santé at the Université Laval ([www.ulaval.ca/vrr/rech/Regr/00087.html](http://www.ulaval.ca/vrr/rech/Regr/00087.html)), McGill University Master's Degree Specialization in Bioethics ([www.mcgill.ca/bioethics](http://www.mcgill.ca/bioethics)), University of Alberta John Dossetor Health Ethics Centre ([www.ualberta.ca/bioethics](http://www.ualberta.ca/bioethics)), University of British Columbia Centre for Applied Ethics ([www.ethics.ubc.ca](http://www.ethics.ubc.ca)), University of Montreal Centre for Bioethics ([www.bioeth.umontreal.ca](http://www.bioeth.umontreal.ca)) and the University of Toronto Joint Centre for Bioethics ([www.utoronto.ca/jcb](http://www.utoronto.ca/jcb)). As an example of the information accessible in this format, the University of Toronto Joint Centre for Bioethics Web site has links to useful bioethics sources and topic-specific Web pages on consent, education (including reference materials for clinician teachers), end-of-life issues and genetics, among others.
- Useful US Web sites include the US National Institutes of Health Bioethics Resources on the Web ([www.nih.gov/signs/bioethics](http://www.nih.gov/signs/bioethics)), the Georgetown University Kennedy Institute of Ethics ([www.georgetown.edu/research/kie/](http://www.georgetown.edu/research/kie/)) and the Georgetown University National Reference Center for Bioethics Literature ([www.georgetown.edu/research/nrcbl](http://www.georgetown.edu/research/nrcbl)), which holds the centre's database of bioethics organizations and provides assistance for using BIOETHICSLINE, an online medical ethics database available through Internet Grateful Med ([igm.nlm.nih.gov](http://igm.nlm.nih.gov)).
- The *CMAJ* Bioethics for Clinicians series ([www.cma.ca/cmaj/series/bioethic.htm](http://www.cma.ca/cmaj/series/bioethic.htm)) elucidates key concepts in bioethics and helps clinicians integrate bioethical knowledge into daily practice.

## The case

Dr. B discusses his intentions for an education session with the chief resident. He decides against a lecture and helps the chief resident organize a case-based clinical conference about the issue of truth telling, using a debate or

discussion format. All of the residents are asked to read about cultural variations in the practice of truth telling about the diagnosis and extent of cancer spread<sup>17</sup> before attending the conference. Two opinion leaders among them are asked to read additional information about legal and ethical views on truth telling.<sup>11</sup> Enlisting opinion leaders is an effective strategy for implementing change.<sup>18</sup> One of the 2 residents is advised to consult with the psychiatry service, the other with the moral philosopher, inviting both to participate in the discussion of whether withholding the diagnosis is appropriate to forestall depression. Dr. B decides to use the truth-telling module of the Royal College of Physicians and Surgeons of Canada curriculum for his basic teaching plan and references. He prepares copies of the Bioethics Bottom Line component of the truth-telling module to distribute at the end of the session as a record of the main points of the discussion. To strengthen his effectiveness in teaching bioethics, Dr. B plans to explore available intensive courses, conferences and workshops. Participants in these programs have described the experience as intellectually engaging and personally rewarding.

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## References

1. *General standards of accreditation*. Ottawa: Royal College of Physicians and Surgeons of Canada; 1997. Standard B.V:3. Available: [rcpsc.medical.org/english/residency/accreditation/genstandards\\_e.html#B.V](http://rcpsc.medical.org/english/residency/accreditation/genstandards_e.html#B.V) (accessed 2001 Mar 14).
2. Jonsen AR, Siegler M, Winslade WJ. Introduction. In: *Clinical ethics*. 4th ed. New York: McGraw-Hill; 1998. p. 1-12.
3. Engelhardt HT Jr. *The Foundations of bioethics*. 2nd ed. New York: Oxford University Press; 1996. p. 74-84.
4. Hafferty FW, Franks R. The hidden curriculum, ethics teaching, and the structure of medical education. *Acad Med* 1994;69:861-71.
5. Hundert EM, Douglas-Steele D, Bickel J. Context in medical education: the informal ethics curriculum. *Med Educ* 1996;30:353-64.
6. Shalit R. When we were philosopher kings. *The New Republic*. 1997 Apr 28. Available: [www.tnr.com/archive/04/042897/shalit042897.html](http://www.tnr.com/archive/04/042897/shalit042897.html) (accessed 2001 Mar 14).
7. Siegler M. Cautionary advice for humanists. *Hastings Cent Rep* 1981;11(2):19-20.
8. Murphy TF. Sperm harvesting and post-mortem fatherhood. *Bioethics* 1995;9(5):380-98.
9. Davis D, O'Brien MA, Freemantle N, Wolf FM, Mazmanian P, Taylor-Vaisey A. Impact of formal continuing medical education: Do conferences, workshops, rounds, and other traditional continuing education activities change physician behavior or health care outcomes? *JAMA* 1999;282(9):867-74.
10. Bosk CL. *Forgive and remember*. Chicago: University of Chicago Press; 1979.
11. Hébert PC, Hoffmaster B, Glass KC, Singer PA. Bioethics for clinicians: 7. Truth telling. *CMAJ* 1997;156(2):225-8. Available: [www.cma.ca/cmaj/vol-156/issue-2/0225.htm](http://www.cma.ca/cmaj/vol-156/issue-2/0225.htm)
12. Freedman B. Offering truth: one ethical approach to the uninformed cancer patient. *Arch Intern Med* 1993;153:572-6.
13. Turnbull J, Gray J, MacFadyen J. Improving in-training evaluation programs. *J Gen Intern Med* 1998;13:317-23.
14. Sulmasy DP, Terry PB, Faden RR, Levine DM. Long-term effects of ethics education on the quality of care for patients who have do-not-resuscitate orders. *J Gen Intern Med* 1994;9:622-6.
15. Singer PA, Cohen R, Robb A, Rothman A. The ethics objective structured clinical examination. *J Gen Intern Med* 1993;8:23-8.
16. Singer PA, Robb A, Cohen R, Norman G, Turnbull J. Evaluation of a multi-center ethics objective structured clinical examination. *J Gen Intern Med* 1994;9:690-2.
17. Thomsen OO, Wulff HR, Martin A, Singer PA. What do gastroenterologists in Europe tell cancer patients? *Lancet* 1993;341:473-6.
18. Stross JK. The educationally influential physician. *J Contin Educ Health Prof* 1996;16:167-72.

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