Brief Opinion

Ethical Issues in Radiation Oncology During a Pandemic

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Abstract

Medicine in the United States has generally followed ethical principles espoused by Immanuel Kant where the individual patient takes priority in decision-making. With the advent of coronavirus disease 2019 as a major health event, radiation oncologists in some situations need to alter the manner in which they act with individual patients. The well-being of health care workers and society as a whole needs to be considered in management decisions. During the time of a pandemic, ethics principles may be based more on a utilitarian approach that emphasizes the common good. Thus, at times treatment decisions might result in delays in initiating therapy, modifying the radiation treatment course (such as to a short course rather than a long course of therapy), and the sequence of therapies, all to minimize viral exposure. It is important that altered therapy is based as much as possible on institutional or departmental decisions and, to the extent possible, not on a case-by-case basis. However, in all situations, we need to still respect the individual’s autonomy and fully inform patients of our decisions and the reasons for those decisions.

The longstanding general ethical principles followed in the United States are based largely on concepts elucidated by Immanuel Kant, and they emphasize individual autonomy. Beauchamp and Childress have put forth commonly used principles for approaching ethical questions, including:

1. Respect for autonomy: the patient’s right to choose or refuse treatment, which underpins the concept of informed consent.
2. Beneficence: practitioners should act in the patient’s best interest.
3. Nonmaleficence: do no harm.
4. Justice: this concerns the distribution of scarce health resources and the decision of who is offered what treatment. This might also be referred to as “social justice” because it goes beyond dealing with the individual patient.

An alternative utilitarian ethical formulation (as put forth by Jeremey Bentham and subsequently by John Stuart Mill) suggests that decisions should be made to produce benefit to the greatest number of people. The benefit can be described in terms of “well-being” or sometimes “utility,” but reflects some parameter of meaning to the potentially affected individuals, with all affected individuals being viewed equally.

The utilitarian approach is not the approach that has been taken within U.S. health care; that is, it has an emphasis on private payers and a lack of responsibility of the public at large for the health care of noninsured individuals. There has generally been little regard for distribution of resources in the United States because for many segments of the population (the insured), resources...
have been available for most “standard” clinical care. This is, however, the luxury of a rich nation with the individual at the center of health care decisions.

In certain situations, however, the situation changes. In emergencies, triage is the norm and decisions aim to produce the most benefit for the most people and for the broader society. Our U.S. radiation oncology community fortunately rarely faces such emergency situations, but the present coronavirus disease 2019 (COVID-19) pandemic is forcing us to address serious ethical issues.

Some of the ethical issues related to COVID-19 have recently been addressed by others. Schrag et al suggest that care plans can be safely modified for care that is not time sensitive, can be delivered remotely (eg, follow-up visits), or where management omission/ delay would have minimal patient effect. Conversely, care plan modifications/delays should be avoided in situations in which this could have a meaningful effect on patient survival duration, quality of life, or cure rate. Of course, any action must be taken with consideration of the resources that are available (both medical and patient) in each specific environment.

Representing the American Society of Clinical Oncology Ethics Committee, Marron et al raise principles including: (1) maximizing overall health benefits from the available resources; (2) decisions regarding allocation of scarce resources should not be made by the treating physician; (3) coordination with the institution in the use of scarce resources; 4) decisions about allocating scarce resources (eg, ventilators) should be made early in the pandemic, and a cancer diagnosis should not alone prevent patient access to those resources; and (5) policies should be implemented consistently and transparently (to both health care workers and patients).

These issues have also been discussed by groups such as the Hastings Center’s “Ethical Framework for Health Care Institutions & Guidelines for Institutional Ethics Services Responding to the Coronavirus Pandemic.” This document emphasizes the health care leader’s duty to plan for ethical challenges during an emergency and safeguard workers and vulnerable populations, and it serves as a guide for contingency levels of care and crisis standards of care.

I herein aim to consider how these concepts/recommendations should be applied by a practicing radiation oncologist. We must acknowledge that our mindset needs to change from the usual Kantian approach, where the patient sitting in front of you (physically or virtually) is paramount, to the utilitarian approach where the larger societal issues become predominant. It also means that a patient’s wishes regarding treatment should not always be followed. We need to consider not just the effect of radiation therapy on that patient, but also the effect on other patients, health care workers, and society at large.

**Should a Patient Be Treated?**

There are some situations in which standard therapy should not be given, or at least substantially deferred. A simple example is a patient with low-risk prostate cancer who is anxious about a delay in treatment. It is appropriate to tell the patient that he cannot receive treatment now. There clearly is no urgency for therapy and the patient is being put at increased risk of exposure to severe acute respiratory syndrome coronavirus—2 by coming to the hospital over multiple days, with resulting morbidity and mortality risks. In addition, and as important, having additional patients in the department increases the risk of infecting other patients and their family members, and of infecting health care personnel. Further, if the patient is being scheduled for multweek therapy, it is possible that the patient would not be able to come for all the treatments because of subsequent societal or personal reasons secondary to the virus, and that would endanger his long-term prospects for cure. Not treating this patient for an extended period of time is likely appropriate, despite the wishes of the patient. This is an approach that we would normally not condone as we would usually try to respect the patient’s autonomy, as described by Kant, and his right to make final decisions as to his care.

**Should a Patient Receive Long-Course Radiation Therapy?**

Another issue relates to duration of treatment. For several diseases there are shorter therapeutic courses (eg, mild to marked hypofractionation) with outcomes very similar to longer courses. It is appropriate in pandemic situations to refuse to deliver long-course radiation therapy in these situations (eg, preoperative therapy of rectal cancer, postoperative therapy of breast cancer, primary treatment of glioblastoma, prostate cancer, or palliative treatment of bone metastases). There may be situations, especially in palliation, where data for a shorter course are not strong, but where shorter course treatments might still be appropriate.

**Should Sequencing of Treatment Be Altered?**

Much cancer treatment is multimodality, combining radiation therapy with surgery, chemotherapy, or immunotherapy, but it may be appropriate to alter standard sequencing in some situations. We have a number of standardized regimens, some of which are based on hard data, but some are based on institutional conventions. Because radiation therapy entails multiple daily clinic visits, it might, even in curative situations, be appropriate to alter the sequencing of treatment and delay radiation therapy visits till the pandemic subsides.
At times it might work the other way. Radiation therapy is not as immunosuppressive as chemotherapy, generally has a low risk of producing side effects leading to hospitalization, and does not entail a prolonged hospitalization. Therefore, using radiation therapy first might be more appropriate in selected situations.

**How To Manage a Patient Who Develops COVID-19 During Therapy**

There are no clear answers as to how to deal with patients who develop COVID-19 during a course of therapy. It may be appropriate to modify therapy to account for the infection, as for any severe intercurrent disease. If significant lung tissue is being irradiated, terminating therapy (at least temporarily) might be essential for the patient’s benefit to reduce the risk of radiation-associated pulmonary injury. If treatment is continued, it is obvious that appropriate precautions must be taken to protect staff and other patients. It would be appropriate to treat the patient as the last patient of the day followed by thorough room cleaning.

**How Should Decisions Be Made?**

Decisions related to these issues are often subjective, and to the extent possible they should not be made ad hoc. Rather, one should strive to have institutional (eg, cancer hospital-based) and/or departmental policies that can be applied to most situations. However, all clinical scenarios cannot be predicted and analyzed ahead of time, so there needs to be flexibility. In addition, there will be substantial gray areas regarding patient-specific decisions.

If possible, for ambiguous situations in which standard policies may not be appropriate, it is advisable to obtain advice from other individuals in the department or the hospital. There is a risk that a physician may try to do something “special” for his/her patient, and this may not be in the overall societal, or the patient’s, best interest.

In a pandemic we may need to switch from an emphasis on the respect for patient’s autonomy (the first of the principles elucidated by Beauchamp and Childress) to an emphasis on social justice (the fourth principle). But, it is critically important that we follow Kant’s advice to respect the patient’s autonomy. The patient needs to know what is being done and for what reasons. If we are deviating from long-standing norms, this needs to be fully discussed with the patient so that the patient is fully informed. Kant emphasized the importance of the categorical imperative, “Act only according to the maxim whereby you can, at the same time, will that it should become a universal law.” This “golden rule” should still hold sway.

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