A coronavirus that normally occurs in some nonhuman animals infected humans and caused what came to be called severe acute respiratory syndrome (SARS). In 2003, not long after the initial infections occurred in Guandong, China, SARS spread to almost thirty countries. By the time the disease was contained, about eight thousand people had contracted the virus, and approximately eight hundred had died.

The course of the disease in Taiwan was typical. The first cases were people who returned to Taiwan from China. Health care professionals tried to identify and isolate these people to prevent transmission, and for two months this seemed to work. Then a series of outbreaks originating in seven different hospitals led to many more infections. By the end of the epidemic, Taiwan had about four hundred confirmed cases of SARS.

At the beginning of the outbreak, no one knew how infectious SARS was and what course the disease would take. The evidence at the time suggested a respiratory infection with a mortality rate of about 10 percent. Transmission of SARS appeared to be airborne, both through large droplets and tiny droplet nuclei, implying that incidental as well as close proximity to infected patients might result in transmission. The rate of infection in hospitals was high, and around 30 to 40 percent of reported cases were health care workers.

At this time, when knowledge was limited and fear was strong, the dean of each medical school in Taiwan had to consider the role of students during the epidemic. Many parents and even some politicians called to ask that medical students be excused from school or kept from contact with patients until the outbreak ended. Each dean listened to these requests, consulted with various people, and reviewed the facts before making a decision.

What should the dean decide? What is the ethically appropriate role for medical students during an epidemic?

More than twenty-five hundred years ago, Hippocrates declared, “The health and life of my patients will be my first consideration.” More than nine hundred years ago, the rabbi-physician Moses Maimonides said, “I have been appointed to watch over the life and death of my fellow human beings.” These principles, enduring today, mean that the physician’s obligation to the patient outweighs obligations to self, and the physician’s responsibility to the patient encompasses the full continuum of life, including death’s approach.

The ethical obligation of physicians to place the patient’s welfare before their own may be modified by particular circumstances. During past epidemics, some physicians have tried to suspend their obligations to care for patients presenting risks to their own health by invoking duty to self, family, or future patients. Also, physicians vary in their abilities to care for certain diseases—for example, the skills of emergency medicine physicians and specialists in infectious diseases would be more relevant in the care of patients with SARS than those of radiologists or pathologists.

However, the question here is not what the ethical and professional obligations of fully trained physicians competent to treat SARS patients are, but rather what the dean should require of students in this situation. To paraphrase Maimonides, the dean has been appointed to watch over the lives of her students, and arguably their welfare should be her primary consideration.

What applies to fully trained, competent physicians may help inform the dean’s decision but must be modified by several pragmatic considerations. She should ask, How are medical students similar to fully trained physicians, and how do they differ? Certainly we expect students to be committed to the medical profession and to behave in accordance with its ethical principles. In fact, as students enter many medical schools...
in the United States, they take an oath that declares their patients’ welfare will be their primary concern.

Yet I believe there is an important difference between medical students and physicians: students do not yet have the requisite knowledge, skills, and experience to be of meaningful use in the care of patients with SARS. Further, participation in the care of patients by medical students is primarily for the students’ educational benefit, not the patients’. The dean should ask, Will the educational experience that my students have in helping to care for SARS patients outweigh the risk to their health and lives? I doubt it.

What are the dean’s options? She could have the students carry out all clinical duties, but the risk to students, despite instruction in dealing with SARS patients, is still unacceptably high. She could suspend all clinical rotations and remove the students from all patient contact, but there is no compelling reason to take such a drastic measure and interrupt all forms of clinical education. She could allow the students to make individual choices or a collective decision about whether to care for SARS patients, but by doing so, she would surrender her ethical, professional, and supervisory responsibilities.

The best option is to have the students carry on with their clinical duties, but not to allow them in the vicinity of patients with possible or probable SARS. It is highly likely that some students will acquire SARS if they are exposed to SARS patients, and the risk to the students of severe illness or death outweighs any educational benefit to the students or clinical benefit to the patients.

**commentary**

By Daniel Fu-Chang Tsai and Ding-Shinn Chen

The SARS epidemic in Taiwan took the lives of four senior nurses, one laboratory technician, and two first-year residents. These deaths—especially those of the two inexperienced doctors—shocked Taiwan. Parents of many medical students, concerned about their children’s safety, asked that they be excused from all clinical duties. Since the Ministry of Education cautioned teaching hospitals against letting medical students participate in the direct care of SARS patients, some schools called back their students from teaching hospitals or allowed them to make individual choices about whether to remain in clinical settings.

Our medical school, National Taiwan University College of Medicine, took a nuanced but principled course. After graduating high school, medical students in Taiwan spend seven years finishing their degree. The fifth and sixth years are devoted to clerkships, and the seventh year is devoted to internships. (To avoid confusion with the U.S. system, we will refer to seventh year students as acting interns or senior students, not as interns.) Although clerks and acting interns are both medical students, their clinical responsibilities vary greatly. We decided to give clerks assignments that took them off the wards, but to require acting interns to carry out their clinical duties with some modifications. Of course, all acting interns received special training in infection control, sterile technique, and use of protective equipment.

After making this decision, the dean of our school (one of the authors of this commentary) received many phone calls from frightened parents who tried to persuade him to change the policy for senior students. He reassured them that precautions would be taken to keep students safe. About 60 percent of the parents accepted this; 20 percent recognized it very reluctantly; and 20 percent rejected it and pressured him to change his mind.

The dean resisted this pressure by explaining his view of medical professionalism. Acting interns have historically been part of the health care team at our school and have a duty to participate in clinical settings. Although they are still students needing skills and experience, they have taken an oath and committed themselves to the profession. To develop mature and reliable doctors, professional attitudes should be fostered as well as clinical skills. Acting interns abandoning all clinical duties in the face of the risk posed by SARS would be similar to soldiers fleeing the battlefield in the face of combat. Senior students might not be fully competent to fight the enemy, but they must contribute to the team and prepare themselves to treat patients with the SARS virus. In addition, to excuse residents and acting interns from duty would have a negative impact on nurses, lab technicians, and all other health care workers and trainees.

We decided to modify the obligations of acting interns by not requiring them to participate in the direct care of SARS patients. Medical schools have an interest in protecting their junior staff from the harm caused by a new and poorly understood disease. Therefore, sending in more experienced hands first and modifying the duties of acting interns is a sensible and justifiable way to prepare acting interns. When they are more competent to care for SARS patients, they can undertake standard responsibilities.

In reaching our decision, we tried not only to emphasize doctors’ responsibilities, but also to allow for some individual autonomy. By allowing acting interns to decide whether to engage in the direct care of SARS patients, we encouraged them to cultivate a genuine concern for patient welfare and a sense of responsibility and human compassion. According to Confucian ethics, this is the way to develop “humaneness” (jen) in doctors. As members of a profession that has promised “to cure, to care, to comfort,” acting interns should be encouraged, but not forced, to participate in the care of SARS patients.
We usually think of the dean’s office as a well-furnished room in the administration building. But as the etymology of the word suggests, an office is also a constellation of duties. In this case, three important duties stand out. First, the dean must see that students develop the knowledge, skills, habits, and attitudes they need to be excellent doctors. Second, she must protect their physical and psychological wellbeing. And third, she must ensure that students, residents, and faculty contribute to patient care. All the dean’s duties should be animated by a desire to make medicine more effective, accessible, and caring.

The problem in this case arises because various duties come into conflict. A recently emerged infectious illness like SARS provides a rich opportunity for students to study a new disease, develop clinical skills, cultivate appropriate habits, adopt compassionate attitudes, and contribute to patient care. But this opportunity also poses a danger—students may become sick and die.

My own view is that health care professionals have a special and important role to play in caring for the sick and dying. When people commit themselves to this social role, they have a duty to accept a reasonable level of occupational risk, even if what counts as reasonable is open to further discussion. Medical students have made a commitment and therefore share this duty. Although we need to take into account their skill level and to train and supervise them so that they are not exposed to unnecessary and unreasonable risks, we do not need to dilute the ethical duty.

If I were the dean, I would set aside three days for reflection and deliberation on the question, Should medical students carry out their usual clinical assignments during this outbreak? To decide, students would need to learn more about infectious diseases, study ethics, consult with various people, and discuss the matter in groups. I would speak to the class and express my views, but so would many others, such as experts in infectious diseases, philosophers, concerned parents, and doctors who have accepted the risks. Arguments and analysis are important, but so are narratives of those who have nobly served. Of course, the students could also listen to and respond to narratives of people who fled to avoid the risk of infectious disease. After a robust deliberation, I would let the students decide as a group; because this decision is more akin to a political decision than a consumer choice, it should be a collective one. If the students decide to retreat to the classroom, so be it. If they decide to stay and serve, good for them.

Most ethical decisions worth deliberating have both an analytical element and a creative one. We try to analyze the relevant features and norms to find the best decision, but we also fashion a creative response that expresses values and hopes for the future. My approach aims to help students realize and shape the meaning of their profession. Here the term “realize” has two important senses: to understand and to actualize. It is vitally important to understand the moral meaning of our social roles and undertakings. But it is equally important to shape those meanings and put them into practice. Realizing moral meaning is the deepest form of ethics education.

My approach also fosters an appropriate kind of participatory democracy. Many people will dismiss the idea that a dean would or should be concerned with participatory democracy, but I’m not so cynical. Part of the dean’s office is to listen to many voices, to enable people to contribute more fully to joint enterprises, and to encourage better responses to problems. Encouraging participation is one way for the dean to shape the future of medical practice—a future that will call upon us to respond in better ways to outbreaks of infectious diseases.