

Ethical Considerations for Emergency Care Providers during Pandemic Influenza—Ready or Not...

Margarita E. Pena, MD, FACEP;^{1,2} Charlene B. Irvin, MD, FACEP;^{1,2}
Robert B. Takla, MD, FACEP^{1,2}

1. St. John Hospital and Medical Center, Department of Emergency Medicine, Detroit, Michigan USA
2. Wayne State University School of Medicine, Department of Emergency Medicine, Detroit, Michigan USA

Correspondence:

Margarita E. Pena, MD, FACEP
St. John Hospital and Medical Center
Department of Emergency Medicine
22101 Moross Road
Detroit, Michigan 48236 USA
E-mail: margarita.pena@stjohn.org

Keywords: avian influenza; duty to care; emergency care provider, ethics; healthcare provider; infectious pandemic; resource allocation; restriction of liberty

Abbreviations:

AMA = American Medical Association
ECP = emergency care provider
SARS = Severe Acute Respiratory Syndrome
WHO = World Health Organization

Received: 10 June 2008

Accepted: 30 July 2008

Web publication: 29 April 2009

Abstract

When an infectious pandemic occurs in the United States, emergency care providers (ECPs) will be on the frontlines caring for infected, potentially infected, and non-infected patients. Logistically, the current emergency care system is not ready for a pandemic, but are the providers ethically ready? Some of the most difficult and challenging issues that will be raised during a pandemic will be ethical in nature. An ECP likely will be confronted with ethical values and value conflicts underlying restriction of liberty, duty to care, and resource allocation.

This report summarizes the ethical concerns and challenges that ECPs face during an infectious pandemic, and raises ethical questions that may arise related to the role of an ECP as a healthcare provider and stakeholder.

Pena ME; Irvin CB; Takla RB: Ethical considerations for emergency care providers during pandemic influenza—Ready or not... *Prehospital Disast Med* 2009;24(2):115–119.

Introduction

In 1918, a subtype of avian flu caused an estimated 50–100 million deaths, including 675,000 deaths in the United States.^{1–3} It is estimated that as many as 50% of the human population was infected, with a mortality rate of 2–5%.³ This is in gross contrast to inter-pandemic years when only 5–15% of the population is infected and the mortality rate is only 0.1%.^{3,4} In 1997, an avian flu strain of the H5N1 subtype was identified in a human patient.⁵ As of April 2008, there have been 382 reported human cases of H5N1 infections including 241 deaths.⁶ Although it is predicted that we will experience a pandemic influenza, it is unknown whether the current H5N1 avian influenza virus will be the inciting agent.⁷ What is known is that the logistical aspects of pandemic influenza planning still are incomplete.⁸ The US healthcare system and hospital emergency departments are not ready for the surge of patients in the event of a devastating pandemic.^{9,10} Additionally, the frontline of emergency medical care during a pandemic, i.e., emergency care providers (ECPs), may not be ready for the potentially daunting ethical dilemmas that will be encountered during such a mass-casualty incident.¹¹ Therefore, it is imperative that ECPs be as well versed in the ethical aspects of pandemic influenza planning as they are with its logistical aspects.

Infectious pandemics represent some of the most catastrophic events in human history. Serious and difficult questions that are ethically based will arise and will test the moral fabric of society.¹² Emergency care providers will need to balance the utilitarian goal of caring for the greatest number of people against the libertarian goal of protecting individual patient rights and privacy. Placing societal needs ahead of any one individual's needs is necessary during a catastrophic pandemic.¹¹ However, it is contrary to the everyday practice of ECPs, in which the focus is on the needs of each patient. Other personal ethical dilemmas will challenge the ECP's personal value system and force them to choose between competing values.

The purpose of this report is to summarize the ethical issues and challenges of current influenza pandemic planning as they relate to ECPs, and

raise ethical questions of specific importance to ECPs relative to their roles as healthcare providers and stakeholders.

Ethics in Pandemic Planning

The importance of incorporating ethics into pandemic planning was brought to light most recently by the severe acute respiratory syndrome (SARS) outbreak. Some of the most difficult decisions did not have to do with logistical or scientific issues, but rather with ethical issues that were raised by public health, government, and healthcare workers.^{13,14} Post-epidemic research of SARS found that the cost of not having prior agreed-upon ethical guidelines included a loss of public trust, low morale (especially seen in healthcare workers), confusion about roles and responsibilities, stigmatization of vulnerable individuals and communities, misinformation, and public fear.¹⁵ It also was found that those affected by decisions, i.e., stakeholders, would be more likely to cooperate if: (1) they were included in the decision-making process; (2) these processes were perceived to be open and transparent; and (3) the decisions made were perceived to be ethical and fair.^{15,16}

Four major ethical issues in pandemic influenza preparedness planning have been identified: (1) restriction of liberty in the interest of public health (e.g., quarantine); (2) healthcare workers' duty to provide care; (3) resource allocation; and (4) global governance implications (e.g., travel advisories).^{15,17} During an infectious pandemic, emergency care providers likely will be affected by decisions regarding the first three of these ethical issues and may be faced with having to make expeditious decisions with ethical undertones. The role of an ECP in decisions regarding global governance likely will be limited, as these decisions usually are made at the government level and involve the World Health Organization (WHO).

Restriction of Liberty

During a pandemic influenza crisis, public health measures such as isolation, quarantine, and social distancing may be necessary to contain the spread of disease.¹⁷ The extent to which this will impact an individual's liberty and privacy, as well as cause social or financial hardship, will vary from individual to individual. Middaugh states that social distancing measures could pose a threat to the social fabric of society and community resiliency.¹⁸ Although decisions to implement these measures may infringe upon individual or community rights, they are ethically acceptable and justified under these circumstances, if there is consensus that they are effective and for the common good.¹⁶

Isolation of those infected and the quarantine of exposed persons are considered by some to be the most complex and most legally and ethically controversial public health powers.¹⁹ The current consensus is that pandemic planning decisions about these public health measures should demonstrate accountability, transparency, and stakeholder involvement and use the least restrictive measures necessary to protect the public.¹⁶ The use of ethical and equitable plans would provide safeguards against stigmatization or discrimination of groups of people, limit disproportionate burdens on certain individuals or communities, and increase public buy-in.^{16,17} This, in turn, can contribute

positively to public compliance and understanding when these measures must be instituted.

As initial responders for potentially infected individuals, ECPs may be directly involved in the identification (and subsequent notification to governing bodies) of individuals or groups of individuals requiring quarantine.²⁰ This responsibility may have a negative effect on the ECP-patient relationship. For example, the usual commitment to confidentiality may need to be suspended when name reporting becomes necessary for quarantine and contact tracing. Fears of stigmatization or of charges of discrimination while performing these duties may occur.^{22,23} Resentment, anger, or bargaining may be encountered if the patient objects to being quarantined.²⁰

Healthcare workers, however, can attempt to offset some of these conflicts and still advocate for the patient. Listening to their concerns and expressing empathy for their situation are some intangible methods. Ensuring that the patient will not be abandoned by providing appropriate access to care and voicing any collective concerns to appropriate local governing bodies are concrete patient advocacy actions.²⁰

Important ethical questions concerning restriction of liberty that must be addressed or clarified include:

1. What type of checks and balances will be in place to ensure that the least restrictive measures are affording adequate disease control, but not becoming too burdensome, such that they threaten public trust and cooperation;²³
2. If any of the criteria for restrictive measures are perceived as being based on individual judgment, how can emergency care workers and society be assured that they are being applied equitably across all populations;²⁰ and
3. What steps have been taken to ensure that those who will suffer socially or economically will be provided for?¹²

Duty to Care

Some of the greatest ethical challenges facing an ECP during an infectious pandemic pertain to the duty to provide care. The ethical principle of beneficence underlies the patient-provider relationship, which morally obligates the healthcare professional to promote the welfare of patients and advance their well being.²⁴ It is argued that healthcare professionals have obligations to society, owing to the fact that they have unique medical abilities in the care of the sick or injured.^{24,25} Furthermore, since healthcare professions are freely chosen, all inherent risks that go along with caring for the sick or injured are presumed.²⁶ Emergency physicians, nurses, and emergency medical technicians have some of this language incorporated into their professional codes of ethics.^{27–29} The American College of Emergency Physicians Code of Ethics states that emergency physicians have an ethical obligation to “respond promptly and expertly, without prejudice or partiality, to the need for emergency care”.²⁵ However, none of the professional codes of ethics provide guidance as to the extent of duty or acceptable risk in the face of disasters.

In the wake of the terror attacks of 11 September 2001, the American Medical Association (AMA) adopted an ethics policy addressing physician obligation during disasters. It states: “Individual physicians have an obligation to

- Do I put my duty to my patients ahead of that to my family?
- Who will care for my family if I am forced to be quarantined, get sick or die?
- Will I feel I am abandoning my colleagues if I cannot risk working or if a family member gets sick?
- Will I feel resentful of my colleagues because I am exposed to more risk than they are?
- Will I ostracize those colleagues that do not show up for work?
- Will I get fired if I don't show up for work?
- How will society assist the families of emergency care workers if they are in need?
- Is society willing to codify and reform malpractice laws during disasters when care practices undoubtedly will change?

Pena © 2009 Prehospital and Disaster Medicine

Table 1—Ethical questions arising during an infectious pandemic³⁵

provide urgent medical care during disaster. This ethical obligation holds even in the face of greater than usual risks to their own safety, health or life".³⁰

The SARS outbreak was a recent prototypical example of an infection that created a high risk for healthcare workers.³¹ According to the World Health Organization (WHO), healthcare workers were most affected by SARS and accounted for 21% of all reported cases.³² In two studies investigating the psychological impact of SARS on healthcare workers, both found that emotions encountered by healthcare personnel during the epidemic included fear, uncertainty, anxiety, anger, guilt, and frustration.^{33,34} In a survey of physicians treating SARS-infected patients from three Toronto hospitals by Grace *et al*, physicians who provided direct care to SARS patients experienced a significantly higher rate of psychological distress compared to physicians who did not provide direct care.³⁵ Those physicians providing direct care also reported feeling more stigmatized. However, the physicians strongly believed that it was their duty to provide care for highly infectious patients with a life-threatening illness.

Although the "duty to care" dilemma is not unique to ECPs, a proportionately greater risk is assumed by ECPs compared to many other healthcare workers during a influenza pandemic.³⁶ Emergency care providers will be among the first to initially treat these highly infectious, ill individuals before the outbreak is identified, placing them at high risk of infection. The ethical value of reciprocity requires that society support those who face a disproportionate burden in protecting the public good and takes steps to minimize their impact as much as possible.³⁷ The obligation of an ECP to render care during a pandemic should not be unlimited. Current ethical pandemic planning is now addressing those issues related to duty to care that affect ECPs, such as support and aid for any financial and legal burdens, timely access to updated information, transparent information about potential risks related to duties, access to vaccines and treatment, and provisions for a safe working environment.^{17,38}

The duty to provide care for those afflicted during a pandemic influenza, however, is limited by the ECP's other obligations, such as those to family, community, colleagues, and non-infected patients.³⁶ The above-mentioned AMA policy on physician obligation during disasters also states that: "The physician workforce is not an unlimited resource; therefore, when participating in disaster responses, physicians should balance immediate benefits to individual patients with ability to care for patients in the future".³⁰ This same policy certainly can be applied to all ECPs.

Some of the many ethical questions related to duty of care that an ECP may encounter during an influenza pandemic are listed in Table 1.³⁵

Resource Allocation

During an influenza pandemic, when resources may be scarce, a distributive form of justice likely will take precedence over individual rights and autonomy. In making decisions about allocation, the ethical principle of equity should be at the forefront, such that the interests of infected patients and non-infected patients should be preserved and procedural fairness in decision-making is ensured.¹⁷ One set of recommendations suggested by Upshur¹⁵ for the ethical rationing of resources includes:

1. Governments and healthcare sectors must engage stakeholders (including staff, the public, and other partners) in determining what criteria are to be used to make resource allocations decisions;
2. Governments and healthcare sectors must publicize, and make accessible, decisions about rationing or prioritization and the reasons behind them; and
3. Governments and healthcare sectors must ensure a formal mechanism is in place for stakeholders to bring forward new information, appeal or raise concerns about particular allocation decisions, and resolve disputes.

Triage protocols or decisions regarding the allocation of resources that are necessary during an influenza pandemic are examples of areas that present ethical dilemmas and challenge personal value systems. For example, how is one person chosen over another to receive resuscitation or ventilator support when supplies and personnel are limited? In 2003, there were approximately 105,000 mechanical ventilators available for use in the US, with about 80,000 in use at any given time in routine medical care.³⁹ This would mean that during a pandemic, most patients requiring a ventilator would not have access to one. How does a society or local hospital decide which patient receives a ventilator over another patient? Two triage protocols have been published to address this particular issue. Both protocols address and incorporate the ethical principals of distributive justice and are based on the Sequential Organ Failure Assessment (SOFA) scoring system for treatment prioritization.^{40,41} The protocol suggested by Hick and O'Laughlin⁴⁰ is a tiered framework for restricting mechanical ventilation, while the protocol suggested by Christian *et al* addresses the need for critical care by providing inclusion and exclusion criteria.⁴¹ Both conclude that these guide-

lines allow for a validated objective approach, but also emphasize that establishing a process in advance for making decisions to limit care, is more important than the specific type of decision-making tool used. Finally, they emphasize the importance of disclosing any triage policies in advance not only to healthcare providers, but also to the general public so that the process is understood to be fair and the decisions justifiable.

These recommendations recently have been put into action. In March 2007, New York State released public comment guidelines for the allocation of mechanical ventilators during a severe influenza pandemic.⁴² The guidelines incorporate both an ethical framework and the clinical criteria to be used in decisions regarding ventilator triage. The two key ethical concepts of duty to care for patients and a duty to allocate resources fairly and wisely were foremost considerations. The guidelines also include indications for withdrawing ventilators to benefit those patients with the highest probability for survival, as well as specific exclusion criteria for withholding ventilators from patients who have the highest likelihood of mortality.⁴³

On a national level, the Task Force for Mass Critical Care recently proposed a framework for the allocation of scarce critical care resources when all resources are exhausted including during emergency mass critical care to increase surge capacity.⁴⁴ The triage algorithm is composed of specific inclusion and exclusion treatment criteria, as well as prioritization of care. Ethical commitments that were incorporated into the triage and allocation decisions included: (1) limitation of individual autonomy to ensure equitable care to all individuals without preference to any one individual or groups of individuals; (2) transparency of all policies regarding allocation and withdrawing or withholding treatments such that they can be understood and publicly debated; and (3) procedural justice and fairness to maximize benefit to the population served and regular and repeated evaluation of triage operations.

The prioritization of vaccines and the availability of antiviral drugs during a pandemic influenza are other important ethical issues related to resource allocation. The US Department of Health and Human Services has made public vaccine and antiviral drug priority group recommendations.^{45,46} These recommendations, approved by a joint Working Group consisting of two federal advisory committees that included consultant representatives of public and private sector stakeholder organizations and academic experts, including ethicists.

A five-tiered system outlines vaccination administration for the entire US population, balancing vaccine allocation to occupationally defined groups and the general population.⁴⁶ Further sub-prioritization within and between tar-

get groups needed in the event of a severe pandemic also are outlined. Eleven groups are identified and prioritized for allocation of antiviral drugs.⁴⁵ Definitions for each of the groups and subgroups are stated clearly as well as the rationale and justification for why certain groups were chosen over others. This transparency is essential for public understanding of healthcare prioritization decisions.

Emergency care providers are included in the highest vaccine priority group, Tier 1.^{45,46} The rationale given for this is that the risk of occupational exposure and infection is high for this target group, maintaining their effectiveness is critical, and surge capacity among healthcare sector personnel to meet increased demand is already low.^{45,46} Furthermore, it was reasoned that giving the healthcare providers the highest priority will encourage continued work in a high-exposure setting and help lessen the risk of healthcare workers transmitting influenza to other patients and family members.⁴⁵ Antiviral drug priority group recommendations place ECPs only second to persons admitted to the hospital with onset of influenza symptoms of <48 hours because they are at greatest risk for severe morbidity and mortality.⁴⁵

Confusion over the distributive justice approach and any specific allocation plan may occur.⁴⁷ Different roles and responsibilities, ethical dilemmas, emotions and exhaustion, and the stress that will be encountered will likely add to the confusion. Familiarity with allocation algorithms that involve ECPs and easy accessibility to a forum for addressing questions and concerns about the algorithm will help to allay this confusion. Educating and inviting comments from the public about any allocation decisions will help to gain public cooperation and trust and can positively impact public attitude toward ECPs as they perform their role in the allocation process.

Conclusions

According to the Director of the Centers for Disease Control and Prevention, "influenza pandemic has the potential to represent the worst-case scenario of any public health emergency".⁴⁸ During an infectious pandemic, ECPs will be in the forefront, caring for infected and non-infected patients, and thus, likely will be involved in critical decisions. They will face unique ethical concerns as both providers and stakeholders. Ethical dilemmas and unanswered questions regarding the restriction of personal liberties, duty to care, and resource allocation remain substantial. Therefore, it is essential that ECPs be knowledgeable about not only the logistical, but also the ethical issues of a pandemic. Adequate representation and involvement by ECPs in pandemic planning and a multidisciplinary team approach to resolving these important ethical issues are essential.

References

1. Johnson NPAS, Mueller J: Updating the accounts: Global mortality of the 1918–1920 "Spanish" influenza pandemic. *Bull Hist Med* 2002;76:105–115.
2. Taubenberger JK, Morens DM: 1918: the mother of all pandemics. *Emerg Infect Dis* 2006;12(1):15–22.
3. Patterson, KD; Pyle GF: The geography and mortality of the 1918 influenza pandemic. *Bull Hist Med* 1991;65(1):4–21.
4. Homeland Security: Flu pandemic morbidity/mortality. Available at http://www.globalsecurity.org/security/ops/hsc-scen-3_flu-pandemic-deaths.html. Accessed 04 April 2008.
5. de Jong JC, Claas EC, Osterhaus AD, et al: A pandemic warning? *Nature* 1997;389(6651):554.
6. World Health Organization: Cumulative number of confirmed human cases of Avian Influenza A/(H5N1) reported to WHO. Available at http://www.who.int/csr/disease/avian_influenza/country/cases_table_2008_04_30/en/index.html. Accessed 16 May 2008.
7. World Health Organization: The world health report 2007—A safer future: Global public health security in the 21st century. Available at <http://www.who.int/whr/2007/en/index.html>. Accessed 05 April 2008.

8. Bartlett JG, Borio L: The current status of planning for pandemic influenza and implications for health care planning in the United States. *Clin Infect Dis* 2008;46:919–925.
9. Committee on the Future of Emergency Care in the United States Health System, Hospital-Based Emergency Care: At the breaking point, 2007. Available at http://www.nap.edu/catalog.php?record_id=11621. Accessed 22 May 2008.
10. Cherry RA, Trainer M: The current crisis in emergency care and the impact on disaster preparedness. *BMC Emerg Med* 2008;8:7.
11. Marer S, Sutjita M, Rajagopalan S: Bioterrorism, bioethics, and the emergency physician. *Top Emerg Med* 2004;26(1):44–48.
12. Selgelid MJ: Ethics and infectious disease. *Bioethics* 2005;19(3):272–289.
13. Bernstein M, Hawryluck L: Challenging beliefs and ethical concepts: The collateral damage of SARS. *Critical Care* 2003;7(4):269–271.
14. Singer PA, Benatar SR, Bernstein M, *et al*: Ethics and SARS: Lessons from Toronto. *BMJ* 2003;327:1342–1344.
15. Upshur R, Faith K, Gibson JL, *et al*: University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group. Stand on guard for thee: Ethical considerations in preparedness planning for pandemic influenza. Available at http://www.jointcentreforbioethics.ca/people/documents/upshur_stand_guard.pdf#search=stand on guard for thee. Accessed 16 April 2007.
16. Kinlaw K, Levine R: Ethical guidelines in pandemic influenza—Recommendations of the ethics subcommittee of the advisory committee to the director, Centers for Disease Control and Prevention. Available at http://www.cdc.gov/od/science/phec/panFlu_Ethic_Guidelines.pdf. Accessed 16 April 2007.
17. World Health Organization: Ethical considerations in developing a public health response to pandemic influenza. 2007 Available at http://www.who.int/csr/resources/publications/WHO_CDS_EPR_GIP_2007_2c.pdf. Accessed 16 April 2008.
18. Midtholm JP: Pandemic influenza preparedness and community resiliency. *JAMA* 2008;299(5):566–568.
19. Gostin L, Berkman B: Project on addressing ethical issues in pandemic influenza planning: WHO draft papers for working group two: Ethics of public health measures in response to pandemic influenza. Available at http://www.who.int/eth/ethics/PI_Ethics_draft_paper_WG2_6_Oct_06.pdf. Accessed 17 Jan 2007.
20. Lo B, Katz MH: Clinical decision making during public health emergencies: Ethical considerations. *Ann Intern Med* 2005;143(7):493–498.
21. Gostin LO: Ethical and legal challenges posed by severe acute respiratory syndrome. *JAMA* 2003;290(24):3229–3237.
22. World Health Organization Writing Group: Nonpharmaceutical interventions for pandemic influenza, national and community measures. *Emerg Infect Dis* 2006;12(1):88–94.
23. Gostin LO: Pandemic influenza: public health preparedness for the next global health emergency. *J Law Med Ethics* 2004;32(4):565–573.
24. Ruderman C, Tracy CS, Bensimon CM, *et al*: On pandemics and the duty to care: Whose duty? Who cares? *BMC Med Ethics* 2006;7:E5.
25. Iserson KV: The ethics of emergency medicine. *Emerg Med Clin N Am* 2006;24:513–545.
26. Clark CC: In harm's way: AMA physicians and the duty to treat. *J Med Philos* 2005;30:65–87.
27. American Nurses Association: Code of ethics for nurses. 2001 Available at <http://www.nursingworld.org/MainMenuCategories/ThePracticeofProfessionalNursing/EthicsStandards/CodeofEthics.aspx>. Accessed 15 May 2008.
28. Emergency Nurses Association: Vision/mission statements and code of ethics. Available at <http://www.ena.org/about/mission/#code>. Accessed 15 May 2008.
29. National Association of Emergency Medical Technicians: EMT code of ethics. Available at <http://www.naemt.org/aboutNAEMT/EMTCodeOfEthics.htm>. Accessed 15 May 2008.
30. American Medical Association: E-9.067 Physician obligation in disaster preparedness and response. Available at http://www.ama-assn.org/apps/pf_new/pf_online?f_n=browse&doc=policyfiles/HnE/E-9.067.HTM. Accessed 15 May 2008.
31. Emanuel EJ: The lesson of SARS. *Ann Int Med* 2003;139(7):589–591.
32. Sepkowitz KA, Eisenberg L: Occupational deaths among healthcare workers. Available at <http://www.cdc.gov/ncidod/EID/vol11no07/04-1038.htm>. Accessed 15 May 2008.
33. Maunder R, Hunter J, Vincent L, *et al*: The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ* 2003;168(10):1245–1251.
34. Bai Y, Lin CC, Lin CY, *et al*: Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr Serv* 2004;55:1055–1057.
35. Grace SL, Hershenfield K, Roberson E, *et al*: The occupational and psychosocial impact of SARS on academic physicians in three affected hospitals. *Psychosomatics* 2005;46:385–391.
36. Sokol DK: Virulent epidemics and scope of healthcare workers' duty of care. *Emerg Infect Dis* 2006;12(8):1238–1241.
37. Thompson AK, Faith K, Gibson JL, *et al*: Pandemic influenza preparedness: an ethical framework to guide decision-making. Available at <http://www.biomedcentral.com/1472-6939/7/12>. Accessed 17 Nov 2007.
38. World Health Organization Department of Epidemic and Pandemic Alert and Response and Department of Ethics, Trade, Human Rights and Health Law: The role and obligations of health-care workers during an outbreak of pandemic influenza. Available at http://www.who.int/trade/Ethics_PI_consultation_report_WHO_2006.pdf. Accessed 17 Nov 2007.
39. Osterholm MT: Preparing for the next pandemic. *N Engl J Med* 2005;352(18):1839–1842.
40. Hick JL, O'Laughlin DT: Concept of operations for triage of mechanical ventilation in an epidemic. *Acad Emerg Med* 2006;13(2):223–229.
41. Christian MD, Laura H, Wax RS, *et al*: Development of a triage protocol for critical care during an influenza pandemic. *CMAJ* 2006;175(11):1377–1381.
42. NYS workgroup on ventilator allocation in an influenza pandemic and NYS DOH/NYS task force on life & the law: Allocation of ventilators in an influenza pandemic: Planning document. Available at http://www.health.state.ny.us/diseases/communicable/influenza/pandemic/ventilators/docs/ventilator_guidance.pdf. Accessed 15 May 2008.
43. Powell T, Christ KC, Birkhead GS: Allocation of ventilators in a public health disaster. *Dis Med Pub Health Prep* 2008;2(1):20–26.
44. Devereaux AV, Dichter JR, Christian MD, *et al*: Definitive care for the critically ill during a disaster: A framework for allocation of scarce resources in mass critical care: From a task force for mass critical care summit meeting, Jan 26–27, 2007, Chicago, IL. *Chest* 2008;133(5):51S–66S.
45. U.S. Department of Health and Human Services: HHS Pandemic Influenza Plan. <http://www.hhs.gov/pandemicflu/plan/appendixd.html>. Accessed 15 May 2008.
46. US Department of Health and Human Services: Draft Guidance on Allocating and Targeting Pandemic Influenza Vaccine. Available at <http://www.pandemicflu.gov/vaccine/prioritization.html>. Accessed 15 May 2008.
47. Brett AS, Zugar A: Avian influenza and the failure of public rationing discussions. *J Law Med Ethics* 2005;34:620–623.
48. Department of Health and Human Services and Centers for Disease Control and Prevention: CDC Influenza Pandemic Operation Plan (OPLAN). Available at <http://www.cdc.gov/flu/pandemic/OPLAN/BaseOPLAN.pdf>. Accessed 22 May 2008.

Ethical Considerations for Pandemic Influenza

Michael H. Hoffman, JD

Section Editor, International Health Law and Ethics, *Prehospital and Disaster Medicine*

Correspondence:

E-mail: michhof@comcast.net

Web publication: 29 April 2009

Pena *et al* engage us by questioning whether existing medical ethics will help practitioners in the face of a pandemic influenza. By implication, their article also raises critical issues impacting law and policymaking at national and international levels. We have not closed the wide gap between lethal pandemic events and ethical standards designed to aid decision-making in ordinary healthcare settings. "Ethical Considerations for Emergency Care Providers during Pandemic Influenza—Ready or Not..." raises issues that must be addressed in law, policy, and ethical standards before practitioners are confronted by them in the field. This article demonstrates how problematic it will be to leave these issues for *ad hoc* decision-making by healthcare professionals overwhelmed by the urgent tasks in front of them.

There is a prospective point of friction between individual interests protected by human rights law, and the "restriction of liberty in the interest of public health (e.g., quarantine), healthcare worker's duty to provide care, resource allocation, and global governance implications (e.g., travel advisories)" identified by the authors. National standards for quarantine, other public health measures, and strategies ensuring social cohesion in pandemics should be worked through by lawmakers, healthcare professionals, civil society leaders, and public authorities before disaster strikes.

Internationally, much work also remains to be done. The World Health Organization is providing leadership to meet the challenge of H5N1 influenza, and leads the way in modernizing the overall response to pandemic threats with the new International Health Regulations. However, important questions remain about national obligations to cooperate with international authorities when epidemics strike and threaten to reach pandemic proportions.

I suggest that readers consider the World Association for Disaster and Emergency Medicine's (WADEM) future role in pandemic preparedness. The WADEM might be well positioned to facilitate problem-solving by framing the right questions, conducting research, and continuing publication that aids lawmakers, healthcare professionals, public authorities, and civil society leaders in preparing effective responses to pandemic threats. National and international deliberation and decision-making will help resolve the important operational issues raised by Pena and colleagues in the long term.