

Her hemoglobin level had dropped further to 8.4 g/dL. Sputum culture yielded substantial growth of methicillin-sensitive *Staphylococcus aureus* and *Pseudomonas aeruginosa*. RT-PCR results of throat and nasal swabs were positive twice for coronavirus, but coronavirus cultures from these areas were negative. One month after onset, her coronavirus antibody titer was 200. In view of possible relapse of SARS, she was treated with oral ribavirin (1,200 mg/day) and lopinavir (133.3 mg/day)/ritonavir (33.3 mg) combination (3 capsules twice a day) in addition to intravenous piperacillin/tazobactam combination. The patient was afebrile, and symptoms improved 3 days after admission. Serial chest radiograph showed gradual resolution of shadowing. Subsequent RT-PCR and sputum culture were negative.

This case illustrates several important issues regarding problems of infection control, diagnosis, and management of SARS. As the definition of SARS is nonspecific, patients with upper respiratory infection or community-acquired pneumonia could be mislabeled as having SARS. Accommodating confirmed SARS patients and patients mislabeled as having SARS in the same facility may be disastrous. Unfortunately, isolating every single case is impossible, particularly when a large number of patients are admitted. Our patient may have acquired the disease after admission since she was placed in the same ward with other patients confirmed to have SARS. For this reason, special cohorting of SARS patients with closely related signs and symptoms should be strictly implemented at admission. Since fever is the most common feature of SARS, isolating febrile cases with respiratory or gastrointestinal symptoms may be appropriate. Even patients with fever alone should be quarantined since the other symptoms of SARS may not be clinically obvious. Secondly, the sensitivi-

ty of diagnosing a coronavirus infection on admission is only 32% to 50% by nasopharyngeal RT-PCR test (3,4). Many infected cases will be missed as a result. Our patient may have had a relapse of disease during her second admission, although she had positive RT-PCR and antibody surge only 1 month after onset. However, we could not conclude whether the first RT-PCR on admission was a false negative or whether the patient acquired coronavirus infection in the hospital. Our study showed that sensitivity for diagnosing coronavirus infection could be increased by performing RT-PCR on samples from different parts of the body (4). Unfortunately, these samples were not taken from our patient. Furthermore, the chest infection with organisms recovered from her sputum could be the sole reason for her second admission, especially when her immune system was weakened by the administration of a high-dose steroid. The presence of genetic material for coronavirus from her nasal cavity and throat might not suggest that the virus is active. The absence of coronavirus growth in this patient might indicate that the virus is no longer viable, although the culture technique itself might not be sensitive enough to justify this claim. Therefore, further refinement of the diagnostic techniques for SARS is essential, especially for diagnosis during early onset. Thirdly, giving treatment to a patient without a legitimate diagnosis may be inappropriate, especially when the treatment carries substantial adverse effects, as illustrated in our patient, and a universally accepted therapy has not been available. Whether lopinavir/ritonavir combination is the key to a cure remains to be clarified, despite the satisfactory response that we observed, since the clinical and radiologic improvement in our patient might be the natural course of the disease.

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## References

1. World Health Organization. Case definitions for surveillance of severe acute respiratory syndrome (SARS). [Accessed May 1, 2003]. Available from: URL: <http://www.who.int/csr/sars/casedefinition/en/>
2. Hospital authority information on management of SARS. [Accessed April 10, 2003]. Available from: URL: [http://www.ha.org.hk/hesd/nsapi/?M1val=ha\\_view\\_content&c\\_id=122711&lang=E](http://www.ha.org.hk/hesd/nsapi/?M1val=ha_view_content&c_id=122711&lang=E)
3. Peiris JSM, Lai ST, Poon LLM, Guan Y, Yam LYC, Lim W, et al. Coronavirus as a possible cause of severe acute respiratory syndrome. *Lancet* 2003;361:1319–25.
4. Peiris JSM, Chu CM, Cheng VCC, Chan KS, Hung IFN, Poon LLM, et al. Clinical progression and viral load in a community outbreak of coronavirus-associated SARS pneumonia: a prospective study. *Lancet* 2003;361:1767–72.

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## Remembering Jonathan M. Mann in a World Ajar

September 2003 marks the anniversary of the deaths of Jonathan M. Mann and his wife Mary Lou Clements aboard Swiss Air flight 111, which crashed off the shore of Peggy's Cove, Nova Scotia, 5 years ago. Although Jonathan and I were both members of the Council of State and

Territorial Epidemiologists in the early 1980s, when Jonathan served as state epidemiologist for New Mexico, our paths did not cross until years later in 1990. Jonathan had reluctantly resigned as director, Global AIDS Activities, World Health Organization, to become full professor at Harvard School of Public Health. I had taken a year's leave of absence from my position in Maine to enroll in Harvard's Master of Public Health program.

In a talk at the Centers for Disease Control and Prevention, Jonathan once outlined many of his hopes and fears for AIDS activities worldwide. Moved by his pleas for global commitment to the epidemic, I sought out Jonathan at the opening reception for new Harvard students. I shared his dreams for public health activism. We believed in inspiring others to careers in applied public health, so we initiated a brown bag lunch series for students and faculty to share experiences about work in public health (1). The common thread throughout these discussions was universal human rights and respect for human dignity.

Jonathan went on to establish the Francis Xavier Bagnoud Center for Health and Human Rights at the Harvard School of Public Health and used his position to promote health as the broad-based core of human values. His lectures on universal human rights centered on the idea that health transcends geographic, political, economic, and cultural barriers. Jonathan drew on his past experiences with the HIV epidemic to argue that the developing world would never achieve economic or political stability unless the health of its people improved. He maintained that, if not addressed, the health problems of the developing world would pose a global threat. "Public health," he wrote, "too often studies health without intruding upon larger, societal, inescapably laden issues.... If the public health mission is to assure the conditions in which people can achieve the highest attain-

able state of physical, mental and social well-being, and if these essential conditions predominantly are societal, then public health must work for societal transformation" (2).

Jonathan argued that discrimination and other violations of human rights were primary pathologic forces working against the improvement of public health and that if we ignored the plight of those whose rights were violated, we would be less than human ourselves. Jonathan very much admired Eleanor Roosevelt, chair, Declaration of Human Rights Drafting Committee, who on the 10th anniversary of the declaration asked, "Where, after all, do universal human rights begin? In small places, close to home—so close and so small that they cannot be seen on any map of the world. Such are the places where every man, woman and child seeks equal justice, equal opportunity and, equal dignity. Without concerted citizen action to uphold them close to home, we shall look in vain for progress in the larger world" (3).

On Jonathan's desk at Harvard, amidst family photographs, was a framed joker taken from an ordinary deck of cards. When I asked about its significance, he responded that, despite life's challenges, it remains important to smile. So smile we must at the memory of Jonathan and his many accomplishments. Each year, the Council of State and Territorial Epidemiologists remembers by holding a distinguished lecture named in honor of Jonathan M. Mann.

The public health practitioner must respond to the needs of people and yet be sensitive to world politics. In solving difficult issues, the practitioner must understand the interconnection of social values and scientific truths and work collaboratively with the medical community. Moved to the forefront by recent acts of terrorism, public health has achieved recognition as first responder and as integral part of planning for and responding to catastroph-

ic health crises. We cannot promote safety and security if we fail to recognize, and advocate for, people around the globe who do not have access to basic health care, adequate living and working conditions, or education to enlighten their response to life's challenges. The anniversary of Dr. Mann's untimely death serves as reminder to the medical and public health communities of the ongoing need to promote universal human rights and to focus energies and resources on a global approach to public health.

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#### References

1. Gensheimer KF, Read JS, Mann JM. Physicians and medical students: factors affecting entry into public health. *Am J Prev Med* 1994;10:238-9.
2. Mann JM. Society and public health: crisis and rebirth. *West J Med* 1998;169:118-21.
3. Roosevelt E. In your hands: a guide for community action for the tenth anniversary of the universal declaration of human rights. New York: United Nations; 1958.

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## Mild Severe Acute Respiratory Syndrome

**To the Editor:** Severe acute respiratory syndrome (SARS) is a recently recognized infectious disease caused by a novel human coronavirus