Ebola and Quarantine


The governors of a number of states, including New York and New Jersey, recently imposed 21-day quarantines on health care workers returning to the United States from regions of the world where they may have cared for patients with Ebola virus disease. We understand their motivation for this policy — to protect the citizens of their states from contracting this often-fatal illness. This approach, however, is not scientifically based, is unfair and unwise, and will impede essential efforts to stop these awful outbreaks of Ebola disease at their source, which is the only satisfactory goal. The governors’ action is like driving a carpet tack with a sledgehammer: it gets the job done but overall is more destructive than beneficial.

Health care professionals treating patients with this illness have learned that transmission arises from contact with bodily fluids of a person who is symptomatic — that is, has a fever, vomiting, diarrhea, and malaise. We have very strong reason to believe that transmission occurs when the viral load in bodily fluids is high, on the order of millions of virions per microliter. This recognition has led to the dictum that an asymptomatic person is not contagious; field experience in West Africa has shown that conclusion to be valid. Therefore, an asymptomatic health care worker returning from treating patients with Ebola, even if he or she were infected, would not be contagious. Furthermore, we now know that fever precedes the contagious stage, allowing workers who are unknowingly infected to identify themselves before they become a threat to their community. This understanding is based on more than clinical observation: the sensitive blood polymerase-chain-reaction (PCR) test for Ebola is often negative on the day when fever or other symptoms begin and only becomes reliably positive 2 to 3 days after symptom onset. This point is supported by the fact that of the nurses caring for Thomas Eric Duncan, the man who died from Ebola virus disease in Texas in October, only those who cared for him at the end of his life, when the number of virions he was shedding was likely to be very high, became infected. Notably, Duncan’s family members who were living in the same household for days as he was at the start of his illness did not become infected.

A cynic would say that all these “facts” are derived from observation and that it pays to be 100% safe and to isolate anyone with a remote chance of carrying the virus. What harm can that approach do besides inconveniencing a few health care workers? We strongly disagree. Hundreds of years of experience show that to stop an epidemic of this type requires controlling it at its source. Médecins sans Frontières, the World Health Organization, the U.S. Agency for International Development (USAID), and many other organizations say we need tens of thousands of additional volunteers to control the epidemic. We are far short of that goal, so the need for workers on the ground is great. These responsible, skilled health care workers who are risking their lives to help others are also helping by stemming the epidemic at its source. If we add barriers making it harder for volunteers to return to their community, we are hurting ourselves.

In the end, the calculus is simple, and we think the governors have it wrong. The health care workers returning from West Africa have been helping others and helping to end the epidemic that has killed thousands of people and scared millions. At this point the public does need as-
surances that returning workers will have their temperatures and health status monitored according to a set, documented protocol. In the unlikely event that they become febrile, they can follow the example of Craig Spencer, the physician from New York who alerted public health officials of his fever. As we continue to learn more about this virus, its transmission, and associated illness, we must continue to revisit our approach to its control and treatment. We should be guided by the science and not the tremendous fear that this virus evokes.

We should be honoring, not quarantining, health care workers who put their lives at risk not only to save people suffering from Ebola virus disease in West Africa but also to help achieve source control, bringing the world closer to stopping the spread of this killer epidemic.

Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

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