Focus On Subspecialties

Lessons from Ebola experience can be used to improve response to public health crises

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Now that the threat level and hysteria over the Ebola epidemic have waned, it is an opportune time to build, reinforce and/or redesign the emergency systems and teams that were rushed into place last year.

Although Ebola has not overwhelmed the U.S. health care system as many feared, the epidemic serves as a timely reminder of how we must plan and train for a variety of potential public health crises, including pandemic influenzas, emerging infections and terrorist threats.

As is often the case, critical care units became the focus of hospital-wide Ebola planning. The few cases treated in the United States illustrated that the level of intensive care support required had not been anticipated even at established emerging infectious disease units. This was especially true at pediatric centers where multidisciplinary expertise (physicians, nurses, respiratory therapists, etc.) often is concentrated. Planning often was done on the fly with rapidly changing opinions and guidelines but demonstrated the vital role critical care must play.

While many institutions established mandatory participation in teams designed to care for Ebola patients, the inherent ethical and procedural dilemmas associated with mandatory participation must be recognized. After all, who would you rather have as your partner in the room: a willing volunteer who understands and accepts the risks of providing care or an unwilling conscript who resents being close to the patient and has competing emotions about how actively to participate in care?

Based on experiences at several large institutions, including those shared by University of Nebraska, Emory University in Atlanta and Bellevue Hospital in New York, following are key components of a successful biocontainment unit (BCU) and BCU team:

- A volunteer BCU team should consist of critical care and infectious disease physicians, nurses and support staff (with the understanding that all critical care staff remain obligated to provide care should the need arise or until the team can be activated).
- BCU clinical leadership should include critical care and infection control physicians, and critical care nurses.
- Protocols should be in place that:
  - describe standard practice about what care will be delivered in the BCU as well as what care highly infectious patients may not have access to, with the caveat that the clinical team will make the final decisions;
  - delineate parental access to an ill child with a highly infectious disease such as Ebola, with the goal of maximizing access while ensuring the safety of the patient, family and staff; and
  - address waste management issues.
- Hospitals should have a bioethics team that is knowledgeable about clinical scenarios that may arise in the care of the BCU patient.
- A public affairs team should have a plan for managing internal and external communications, and should interact in a controlled fashion with local and national media.
- A secure supply chain that includes all components of personal protective equipment should be in place.
- Communications hardware and software should be installed to:
  - allow clinicians in the BCU patient room to exchange information with staff outside the room, and
  - allow patients to visit virtually with family and friends who are outside the room.

It is critical that local guidelines and lessons learned be shared so that common guidelines and recommendations can be established. In addition, hospitals must maintain an ongoing commitment to provide training and education on all types of potential public health emergencies, including the next emergent infectious disease.

The lull in Ebola activity must not be interpreted as the end of the threat. Rather, it should be seen as an opportunity to build a better system to deliver care. Ensuring hospital preparedness, which includes appropriate critical care planning integrated at all levels, is essential to ensure the best possible outcomes for patients in a widespread public health emergency.

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