

**University of Nebraska Medical Center  
Dr. Jeffrey Gold, Chancellor  
Omaha, Nebraska**

**U.S. Senate Committee on Appropriations  
Full Committee Hearing  
“U.S. Government Response: Fighting Ebola and Protecting America”  
Wednesday, November 12, 2:00 p.m.  
Dirksen Senate Office Building, SD-G50**

### **THE EBOLA CHALLENGE AND THE NATION’S READINESS**

The United States faces a serious public health crisis with the Ebola outbreak in Africa. It is a crisis that the United States has the expertise and know-how to contain and help resolve. One of the most pressing questions now facing our country is how best to leverage that know-how to ensure that our nation’s health professionals are properly trained to combat future Ebola and Ebola-like threats.

The University of Nebraska Medical Center (UNMC) and our hospital partner, Nebraska Medicine, have cared for and successfully treated Ebola patients, but more than that, we have emerged as a national resource in Ebola training protocols and education based upon more than nine years of preparation, protocol development and team training. Hundreds of hospitals across the nation have contacted us asking how to prepare their facilities and staff if Ebola arrives in their community. I believe that Emory University hospital is experiencing the same type of inquiries. UNMC and Emory University are collaborating and sharing information and experiences and working closely together and with the Centers for Disease Control and HHS.

To respond to the national demand for information and team training UNMC worked with Apple to convert our nine years of protocols and procedures into easily accessible and completely downloadable multimedia materials and videos for health care providers. It is available from the Apple iTunes, as well as on the UNMC website, and can be accessed from any personal computer or a smart phone at no cost. UNMC just released a second version intended to help consumers understand Ebola. To access the materials search “iTunes Nebraska Ebola Method” on any computer. This is helping address the immediate need for information.

More recently, UNMC has assisted in providing consultations for Bellevue Hospital in New York on how to deal with therapies, screening and isolation when a patient simply arrives in the Emergency Room and needs care.

You might ask why Nebraska is suddenly thrust into the national spotlight. The UNMC Biocontainment Unit opened in 2005. The UNMC Biocontainment Unit team has trained in our specially designed biocontainment unit for nine years. Our Unit has written protocols and trained with local fire department first responders, state emergency management and military units. UNMC has written protocols on decontamination procedures for facilities, ambulances, labs, and more. We have spent a lot of time considering the response plan if a community has to respond to a highly infectious disease. Our team was uniquely prepared to meet public health threats

posed by Ebola and other infectious diseases and to share best practices with our nation's hospital providers.

What has become obvious to those of us who have treated Ebola patients is that a national readiness plan is absolutely necessary to prepare the nation's hospitals. If Ebola continues to escalate, or more importantly, if the nation faces a different highly infectious disease, the nation's healthcare system must be ready to respond.

The UNMC Biocontainment Unit is one of four such units in the nation. The number of treatment units must increase, but even more importantly a national readiness plan that trains healthcare providers in those units must be established.

This training will vary depending on the location of the hospital, its resources, and the risk factor of that hospital receiving a patient. The hospitals that are being considered as potential treatment centers will require much more intensive training than a smaller community hospital that may only need to be correctly trained in screening procedures, isolation procedures and use of protective clothing. The University of Nebraska Medical Center and Emory University are collaborating on how training might be most effectively delivered, but it must take place and begin soon.

The risk to the healthcare providers and members of the hospital community in dealing with patients who have Ebola demands urgency in launching a national training program. A key part of training is building the team that must rely on each other to safely deliver the treatment to patients. The training of hospital personnel must include everything, such as addressing special facility needs and special lab needs, and the training must have a particular focus on the management of waste and consumables that must be decontaminated before they leave a biocontainment unit.

As the Congress considers the Emergency Supplement, I urge that it include provisions to establish a national training program and a national readiness strategy, preferably managed by the front line Biocontainment Units that have the experience that providers are relying on for information.

I wish to briefly share a few key lessons that UNMC and Nebraska Medicine have learned through our experience by being on the front line of this war against Ebola:

- Patients and their families come first – whether that involves the provision of care, protecting their privacy or gaining permission to conduct experimental research.
- Caregivers cannot become distracted due to the special national attention placed on these patients. The national attention is, however, critically important in communicating in an accurate and timely way with our global community.
- Teamwork is essential for caregivers. Putting one's life in the hands of well trained, interdisciplinary, and passionate experts is essential.

- Safety is paramount. Rigorous study of and compliance with constantly emerging protocols of care are mandatory.
- Promoting a culture of quality that is equal to the risk undertaken is expected of every individual team member. Training, seeking new knowledge continuously produced in real time, and appropriately questioning decisions must be routine.
- Providing accurate and timely information to our colleagues in the health professional community and the public is essential.
- Conducting research and sharing findings in a timely fashion is imperative. New discoveries in the treatment and management of the disease as well as information in such areas as patient triage, waste management and patient transportation are critical to combating the disease and preventing its spread.
- Advancing community understanding about the disease is an important and often overlooked service – especially in non-English speaking neighborhoods. Continuous messaging is essential in combating rumors and allaying unrealistic fears.
- Special attention must be placed on caring for the health of caregivers – especially mental health. Normal conditions of stress are intensified in this setting.
- Transparency, accuracy, and timeliness of sharing information are critical factors in working with media, who are important allies in creating accurate and realistic narratives about the disease and its victims.
- The current resources available within the United States to care for patients being repatriated with a specific infections diagnosis or diagnosed within the United States are extremely limited and need to be scalable with sustained expertise and maintenance of quality facilities.
- Mechanisms for support of the maintenance of this expertise and specifically for the care of suspected or diagnosed cases are currently not available and need to be addressed.

We have the expertise and know-how to contain Ebola and other infectious disease threats. However, in order to do this we must ensure that our nation's health care professionals are adequately trained, properly equipped, and rigorously drilled. America's academic health centers, along with our federal, state and local government allies, must work collaboratively to ensure that proper treatment protocols and procedures are widely proliferated. Our team of biocontainment professionals at UNMC and Nebraska Medicine are uniquely prepared to answer this call in the fight against Ebola and other infectious diseases.

I have attached for your reference a copy of the UNMC Biocontainment Patient Care Unit brochure.

Thank you for the opportunity to comment.



Providing care for patients with highly contagious diseases, the biocontainment unit is an environment that maximizes the safety for staff and the community at large. A full spectrum of care is provided – from quarantine to intensive care treatment – for patients of all ages. The unit is designed to handle infections such as viral hemorrhagic fevers (eg. Ebola virus), as well as smallpox, SARS, monkeypox and avian influenza, whether acquired in a bioterrorist attack, in a laboratory accident or as a naturally occurring infection.



The threat of *bioterrorism* in the United States is very real.



Nebraska is prepared.

The Nebraska Biocontainment Patient Care Unit is a collaborative project involving Nebraska Department of Health and Human Services, The Nebraska Medical Center and University of Nebraska Medical Center. It is one of only a few biocontainment patient care units in the United States and is the largest with a 10-bed capacity. In addition to providing medical care for patients with hazardous diseases, the unit also has active research and outreach training programs for the region.

Unit personnel consist of a highly trained staff of physicians, nurses, techs, infection preventionists and respiratory therapists who have special training in disaster management, cardiac life support and bioterrorism. They work full-time in other areas of The Nebraska Medical Center but remain on call to report to the unit promptly.

The Nebraska Biocontainment Patient Care Unit was dedicated by Julie Gerberding, MD of the Centers for Disease Control and Prevention in 2005. In the event of a public health threat, the unit may be activated by Nebraska Department of Health and Human Services and the NBU medical director.

**THE NEBRASKA BIOCONTAINMENT PATIENT CARE UNIT IS THE LARGEST BIOCONTAINMENT PATIENT CARE UNIT IN THE UNITED STATES.**

**EQUIPMENT AND CAPABILITIES**

The Nebraska Biocontainment Patient Care Unit is a secured area with a self-contained, negative-pressure airflow system.

**Other features include:**

- Negative air flow with greater than 15 air exchanges per hour
- High-Efficiency Particulate Air (HEPA) filtration system
- Secured access, double door air lock main entrance
- Separate staff entrances and exits
- Staff decontamination shower
- Pass through sterilizer to disinfect materials leaving the unit
- Quik-bank to decontaminate lab specimens leaving the unit
- Video phones for patient communication
- Close proximity to the Nebraska Public Health Laboratory (NPHL) BSL III Lab
- HEPA patient transport system allows for safe transport of patients to the unit



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**NEBRASKA BIOCONTAINMENT PATIENT CARE UNIT**

