

Infectious disease protection for healthcare security officers

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Healthcare Security should be considered an active component in an infectious disease event, the authors maintain, and security officers must be included in an Employee Health screening and N95 fit testing initiative to safely welcome the incoming infected patients. In this article, they spell out the different levels of precautions officers should become familiar with in order to protect themselves.

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The healthcare system in the United States has recently been rocked by an increase in the frequency of patients carrying an infectious disease. At the moment, Ebola (EVD) is of the greatest concern as the number of infected patients around the globe continues to increase. Although West African countries continue to be “ground zero” for the battle to contain the disease, the United States, the United Kingdom, and many of the European Union countries have cared for infected patients. The fear surrounding this virus grows as more and more cases prove to be fatal and neither a vaccination nor a cure has been developed.

In addition to the increasing number of cases of Ebola, other infectious diseases are continuing to impact healthcare. The number of children in the United States who have become infected with the Human Enterovirus (D68) is increasing daily. Any epidemic striking children always causes an

increase in anxiety among health-care workers and the lack of understanding surrounding D68 is cause for further alarm. This enterovirus, too, is lacking a cure and calls for supportive care. With the onset of new and prominent virulent diseases, healthcare workers (both clinical and non-clinical) need to recognize that the risks of becoming infected through the performance of their duties have increased significantly.

Although the handling and care of patients with any infectious disease primarily rests with our clinical professionals, they may not always be the ones to initially contact the infected patient. The healthcare security officer often finds himself as the first point of contact with patients presenting to a healthcare facility who may have an infectious disease. Before even entering the doors of our emergency departments, patients may inquire from patrolling security officers the direction to their destination. Even upon arriving at the ED, security officers stationed in busy emergency departments may be a source of information on where to register or sign in for triage.

If we recognize that the clinical worker may not be the initial source

of contact with potentially infectious patients, then we certainly must take into careful consideration the protective measures we are providing (or should be providing) for our security staff. As our understanding of these disease's pathways into the body grows, we are enhancing the personal protective equipment (PPE) we provide for caregivers. Along the same lines, as the Center for Disease Control's (CDC) guidelines evolve, the protective equipment levels utilized in the healthcare setting often require modification or replacement¹. Although much of this gear may not be practical for security officers to carry on their person, some realistic precautions should be put into place that provide at least a minimal level of protection from common and emerging infectious diseases.

STANDARD PRECAUTIONS

To protect themselves from potential infectious disease exposure, standard precautions are often enough for most security officers to employ (viruses such as Ebola [EVD] require droplet precautions). According to the World Health Organization's Epidemic and Pandemic Alert and Response (2007), standard precautions remain as follows²:

Hand Hygiene: washing hands with warm water and anti-bacterial liquid soap for 40-60 seconds. If soap and water are not available, a hand sanitizing solution should be rubbed all over the hands for 20-30 seconds. Healthcare security officers should already have adopted frequent hand washing as part of their daily work life. Additionally, hand sanitizing stations are located throughout most facilities and sanitizers come in pocket size containers practical for carry by officers.

Hand Protection: nitrile gloves should be worn whenever making contact with potentially infected patients or touching contaminated surfaces. By now, most healthcare facilities have removed latex gloves due to their allergy potential and inferior protection. Gloves can easily be carried by security officers in an individual pouch or within the case carrying their handcuffs or other duty belt equipment.

Respiratory Protection: the use of a surgical or N95 (in case of airborne infections) mask may be warranted when frequency of sick patients increases or a localized surge of influenza like illness is identified. Face shields may also be necessary if a potential exposure to bodily fluids is likely. In the event

of large exposure to secretions or other fluids, a fluid impermeable gown, shoe and leg covers may be worn to protect the officers from exposing their uniform. Many of these precautions would only be necessary if there is some advance notification of a highly infectious and potentially wet patient arriving to your healthcare facility.

DROPLET PRECAUTIONS

Droplets can be generated from an infected person during coughing, sneezing, talking, and during the performance of certain procedures. Droplet precautions are a layer of protection to be utilized in conjunction with and on top of standard precautions. This additional layer of protection is necessary when patients present with possible Ebola (EVD) symptoms. Recall that Ebola (EVD) spreads through human-to-human transmission by direct contact (through broken skin or mucous membranes) with the blood, secretions, or other bodily fluids of infected people, and with surfaces and materials contaminated with these fluids. It is not an airborne illness, but can expose staff to similar risks if the bodily fluids become aerosolized.

Respiratory Protection: a higher level of barrier is needed.

Disposable respiratory protection such as an N-95 mask may be used. Power air purifying respirators (PAPR) may be employed to offer even further protection from transmission. However, the equipment required for any powered respirator will likely be too cumbersome and generally pose a safety risk for most security officers. If a healthcare security officer comes into contact with a potentially infected patient, placing a surgical or other face mask on the patient will provide an additional measure of protection.

General Protection: just as security officers utilize sharp situational awareness in the daily performance of their duty, they should remain especially alert to coming into contact with potentially infected patients. If they suspect they are dealing with an infected patient, increased caution to avoid contact with bodily fluids of any kind are necessary (consider sweat transmitted via a simple handshake). Likewise, certain assigned posts such as the emergency department, should warrant a heightened sense of precautions on security's behalf.

OVERVIEW OF SECURITY EQUIPMENT (STANDARD PRECAUTIONS)

- Pair of nitrile gloves in correct size carried on their person, with a readily available replacement supply nearby
- Surgical mask or N-95 respirator; depending on likely infections (remember to carry one for the patient as needed)
- Pocket-size container of hand sanitizer. CDC recommends an isopropyl alcohol concentration of 60-95% for maximum effectiveness³.
- Easy access to clear plastic face shields and protective surgical gowns if warranted
- Practice of hand hygiene after any human contact

ROLE BASED CONCERNS

Certain security assignments may warrant more or less protective equipment and may require additional education regarding patient screening and follow-up patient placement. Response plans and response teams for certain incoming patients are an important component in an Ebola scenario. Influenza and malaria symptoms may be similar to the presenting symptoms of an Ebola patient; therefore an im-

mediate travel history and other screening questions must be a part of the initial triage. This immediate triage may be assigned to a security officer when the officer is stationed at the entrance of the emergency room.

However, when a healthcare facility receives notice that a suspected Ebola symptomatic patient will be presenting, teams are usually pre-identified to address the patient. If security officers are part of those teams, enhanced PPE and Ebola educational awareness may be required. Generally these may include precautions such as complete coverage of exposed skin by use of surgical gowns, shoe and leg coverings, and fluid resistant hoods in addition to the N-95 and gloving.

In the event that the reporting of an incoming Ebola symptomatic patient is in the advanced stages, consisting of profound viral symptoms that lead to an open exposure to bodily fluids (bleeding, vomiting, and diarrhea), then security officers in proximity should be in a higher level of PPE identical to care givers. This level should include a powered air purifying respirator (PAPR), fully shrouded hood, fluid impervious suit (such as Tyvek), and the double gloving technique. These

demands require security officers to have hazmat education that meets OSHA standards. This training will require the specific officers to be dedicated to the trained response team, ready to initiate the appropriate protocol when the situation presents itself.

Security in the healthcare arena should be considered an active component in an infectious disease event such as the Ebola crisis. A security representative is a valuable component of the infectious disease planning team and a vital member of the initial response activities. Security must also be included in an Employee Health screening and N95 fit testing initiative which prepares the officers to safely welcome the incoming infected patients. An ongoing educational program that maintains the designated offices in a ready-to-respond mode is an asset to any healthcare institution.

¹<http://www.cdc.gov/media/releases/2014/fs1020-ebola-personal-protective-equipment.html>

²http://www.who.int/csr/resources/publications/WHO_CDS_EPR_2007_6c.pdf

³<http://wwwnc.cdc.gov/eid/article/12/3/pdfs/05-0955.pdf>