EBOLA Q&A

James D. Campbell, MD, MS
Associate Professor, Department of Pediatrics
University of Maryland School of Medicine

WHAT IS EBOLA? A VIRUS? CAN IT BE TREATED WITH ANTIBIOTICS?
Ebola is the name of a virus that causes an infection called Ebola virus disease. The infection can be very serious, and can be transmitted to other people. Antibiotics do not help to treat it.

HOW IS IT SPREAD? CAN IT TRAVEL IN A SNEEZE OR A MOSQUITO BITE?
It is spread from person to person by contact with bodily fluids. It can be found in the nasal secretions of a sneeze, but it is not “airborne.” Also, sneezing is not a symptom commonly found in Ebola virus disease patients. The virus is not transmitted by mosquitoes or other insects.

WHAT ARE THE SYMPTOMS? HOW WILL I KNOW IF I HAVE IT?
The symptoms commonly start with fever, severe headache, muscle pains, and general ill feelings. People also can develop weakness, diarrhea, vomiting, belly pain, and unexplained bleeding or bruising. You can only get it if you have close contact with another person who is sick with Ebola virus disease.

HOW DEADLY IS IT?
In Africa, the proportion of people who die from Ebola virus disease has varied from one outbreak to the next. For this current outbreak, approximately half of patients die. With sophisticated medical care, as we have in the US, and early treatment, it is possible that fewer patients would die.

HOW DO WE TREAT IT?
There are no licensed or well-proven treatments that specifically target the Ebola virus. There are some experimental treatments. The recommended treatment is what we call “supportive,” which means providing intravenous fluids and salts, providing medicines to support blood pressure, supporting breathing, oxygen, kidney function, and other vital systems.

WHY ARE PEOPLE FROM AFRICA STILL ALLOWED TO TRAVEL TO THE U.S.? SHOULD WE QUARANTINE THEM?
Systems are in place to help prevent persons in the African countries where Ebola is now found from traveling if they are sick. However, completely isolating those countries is likely to make the epidemic worse.

Movement of goods and people into and out of the affected regions is critical to containing the epidemic. We know that there will be some persons who travel to the U.S. and are later found to be infected. But that situation would likely be much worse if the epidemic in West Africa were left unchecked and then spread even more widely. This is a global problem and we should tackle it as a global community.

SHOULD I AVOID BEING AROUND PEOPLE WHO’VE TRAVELED HERE FROM AFRICA?
Not all the African continent has cases of Ebola, only some areas of some countries. If you know people who have traveled here from a place where Ebola is now found and have had exposure to
persons with Ebola virus disease, you should encourage them to seek medical advice. The only people who can transmit the virus are those who are ill, so you only need to avoid ill people who have had exposure to Ebola two to 21 days in the past.

I HEARD THERE IS A VACCINE. WHEN CAN I GET IT?
There are no licensed vaccines against Ebola, however, there are a number of clinical trials currently underway to test some promising vaccine candidates. The only way currently to get vaccinated is to participate as a volunteer in one of those trials.

I’VE HEARD SOME PEOPLE HAVE BEEN TREATED WITH A KIND OF EXPERIMENTAL DRUG. HOW QUICKLY CAN I GET THAT? WHY ISN’T IT BEING USED TO CURE EVERYONE IN AFRICA?
The experimental drugs under development have not yet been proven safe or efficacious, but some have been given to patients under a kind of compassionate use called expanded access. When treatments are under development, there are often very small quantities available, as is the case with the ones used so far. The manufacturers are working to make more product available for testing.

IF THERE IS A PATIENT IN OUR STATE OR REGION, HOW SCARED SHOULD WE BE? SHOULD I KEEP MY CHILDREN HOME FROM SCHOOL? WEAR MASKS OR GLOVES IN PUBLIC?
If someone in your area is found to be infected, medical and public health officials will work to make sure that the patient is appropriately treated and that contacts are followed per guidelines. Since transmission requires close personal contact, people who merely live in the same region should not be scared. There is generally no need to keep children home from school or to wear protective gear in public.

I’VE HEARD EBOLA WILL MUTATE TO BE AIRBORNE SOON. WHAT DOES THAT MEAN? HOW SOON WILL THAT HAPPEN?
Viruses do mutate, but they do not mutate, typically, in a way that changes the way they are transmitted. Many speculations about the virus have emerged, but there is no evidence to support ideas like an airborne transmission mutation. What that means is that the virus is unlikely to change its genetic makeup so that you could get it because it wafts long distances in the air. This currently does not happen; ebola is only passed by close personal contact with infected bodily secretions. There is no evidence that such a genetic change will ever happen in the future.

WHY DO SOME EBOLA PATIENTS HAVE TO FLY ON SPECIALIZED PLANES WITH INFECTION CONTROL PROCEDURES, BUT NO ONE SEEMS TO BE CONCERNED ABOUT THOSE WHO WERE ON THE PLANE WITH THE DALLAS EBOLA PATIENT?
The patient who was under care for Ebola virus disease in Dallas was not ill when he was on the plane from Liberia. Ebola cannot be transmitted until someone has symptoms.