Joint UKBTS Professional Advisory Committee (1)

Position Statement

Ebola Virus

June 2015

Approved by: Standing Advisory Committee on Transfusion Transmitted Infections

This document will be reviewed whenever further information becomes available. Please continue to refer to the website for in-date versions.

Background

Ebola virus is one a group of viruses that cause viral haemorrhagic fever. It was first identified in 1976 in what is now the Democratic Republic of the Congo. The associated illness is referred to as Ebola virus disease (EVD).

EVD is a serious acute illness that may be fatal if untreated. The average case fatality rate is approximately 50%, but may vary from 25-90% depending on the level of supportive care and the patient's immune response.

EVD is a zoonosis. Humans are not the natural reservoir for any of the haemorrhagic viruses, and although not yet proven, fruit bats are thought to be the natural Ebola virus hosts. Transmission between the natural reservoirs and humans is rare, infection only occurring through contact with the blood or other body fluids of infected animals. Outbreaks of EVD are often traceable to a single case where an individual has handled the carcass of an infected animal - a primate, fruit bat, antelope or other infected creature found in the rainforest. The virus is geographically restricted to the area where its host species lives.

Since 1976 there have been over 20 recorded outbreaks of EVD, mainly in equatorial West Africa. Occasional cases have been reported outside Africa - usually healthcare/laboratory acquired or associated infections. Generally outbreaks occur sporadically and irregularly, and cannot be predicted. However, these outbreaks have largely been contained and controlled because they occurred either in less populated areas where isolation of infected individuals was possible, or for individual cases imported into countries with developed healthcare systems, full isolation of the patients was possible.

Onward human to human transmission only occurs through direct contact with blood or body fluids from an infected individual, either directly or indirectly via, for example, soiled clothing or bedding. Although transfusion-transmission is theoretically possible, at this time there have not been any reports of cases in affected countries. Asymptomatic viraemia has not been described, it would be expected that an infected and infectious donor would be symptomatic and unlikely to donate. Transmission is seen frequently within families, within hospitals, and during some mortuary rituals where contact among individuals becomes more likely. The close contact with infected patients and their body fluids puts healthcare workers at a high risk of infection and the appropriate procedures, including personal protective equipment, must be used to ensure their protection. Currently there are no proven cases of sexual transmission, although virus has been found to persist in semen for a significant period of time after cessation of viraemia, and a small number of possible cases have been reported. Transmission through food, drink or air does not occur.

Although there is no formal proven treatment, EVD is treatable with good supportive care: early intervention with rehydration, maintaining oxygen status and blood pressure all increase the probability of survival. Currently there is no vaccine although a number of experimental treatments are under investigation, including the use of immune plasma from infected and recovered individuals.

The 2014-15 Ebola outbreak in West Africa, centred on Sierra Leone, Guinea and Liberia is the largest outbreak yet seen and, although reducing in number, new cases are still occurring. However the global response with multi-national support and intervention has contained the outbreak within just a relatively small number of countries in the region, all of whom border on each other.

Although the currently affected countries are not major tourist destinations, travel to and within these countries does occur, and there may be some migration to the UK and other European countries. However, Ebola virus outbreaks, excepting any potential person to person transmission in a healthcare setting when an infected individual has been moved to a non-affected country for treatment, have been identified only in countries that are also malarious. Therefore, all individuals who have been in affected areas will be excluded from donation for six months after their return to the UK under current UK donor/donation malaria guidelines. Such individuals should not donate blood or tissues for six months from their return to the UK. Individuals who have been infected with Ebola virus and who have recovered may donate 12 months after full, laboratory proven, recovery.

Convalescent (immune) plasma

As with many viral infections, those who recover from EVD develop antibodies which then confer a degree of protection against further exposure to Ebola virus. One of the Ebola treatment approaches being studied is the infusion of plasma from recently infected and recovered individuals: convalescent or immune plasma. The antibodies present in the plasma would neutralise virus circulating in an infected individual, helping to reduce viral load and consequently reduce the load on the individual's immune system, with the overall aim of helping to ensure recovery. Individuals who have been laboratory proven to have been recently infected and recovered from EVD may be eligible to donate immune/ convalescent plasma for use in the treatment of individuals with EVD. Since the donations would normally be taken after recent recovery, such donors/ donations will require appropriate risk assessment for other infections such as malaria.

Countries affected by Ebola virus are shown in the Geographical Disease Risk Index (GDRI) and any associated Change Notifications.

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