Department of Health

From the Chief Medical Officer,
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Dear colleague,

Risk of Ebola Virus Disease (EVD) transmission from Ebola Survivors

You will be aware of recent documented evidence of sexual transmission and of recrudescent of Ebola disease in survivors. In light of this I am writing to inform you of the current information about possible transmission periods and the advice from the Advisory Committee on Dangerous Pathogens (ACDP) on appropriate management of Ebola survivors. This advice is only for people who had Ebola disease; contacts of Ebola cases outside the 21 day incubation period are not considered to pose any additional risk. Please distribute this letter among your members as appropriate.

All known Ebola survivors in the UK have been assigned a local Infectious Disease (ID) unit and a named clinical lead with whom they should maintain contact. If a survivor becomes ill with symptoms suggestive of infection, current guidelines are that they should contact that ID unit for advice, rather than going to their GP in the first instance.

If a patient presents with non-infectious symptoms (for example having been involved in a road traffic accident) they should provide the clinicians managing their treatment with details of their assigned ID unit so they can seek advice. Likewise in the case of elective surgery, including dental surgery, the clinician should seek the patient's consent to discuss the case with the relevant ID unit. This is particularly important for elective surgical procedures on high-risk sites where viral persistence seems most likely (e.g. central nervous system, eye, prostate). This would enable a risk assessment to be carried out and mitigating actions to be taken where possible.

In the event that use of Personal Protective Equipment (PPE) is advised by an assigned ID unit, clinicians experienced in using it (e.g. from the cohort who worked in West Africa) should train those undertaking surgery. The infection risk is likely to be very low for routine medical care so universal infection control measures/precautions should provide adequate protection in most circumstances.

Epidemiological data suggest human transmission chains are predominantly driven by direct body or body fluid contact from infected patients. Evidence from the West African outbreak indicates that previously recognised maximum time periods from symptom onset to last positive detectable ribonucleic acid (RNA) underestimate virus persistence in a number of sites. Most of these are immunologically protected sites and some now appear, albeit very rarely, to be linked to disease transmission.

Our current understanding of the evidence is set out in Table 1 below.

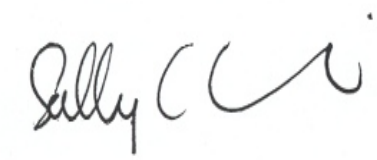
Table 1: Evidence summary - EVD survivor risk
➢ *Viral persistence and recrudescence of EVD can occur. In known cases it has often been associated with, but not limited to, immune protected sites. This is consistent with knowledge of other viral illness, particularly Filoviridae.*
➢ *The greater the time from the original onset of EVD symptoms, the lower the risk of viral persistence. There is not currently a documented case of viral persistence after 1 year.*
➢ *Survivors with positive Polymerase Chain Reaction (PCR) tests for body fluids other than breast milk or semen, and therefore with potentially transmissible infection, are usually ill and symptomatic at presentation/re-representation.*
➢ *There are currently only two documented cases of recrudescent viraemia. The risk is clearly very low, though under-reporting is possible.*
➢ *Where an immune privileged site is implicated as a source of infection, the presence of circulating neutralising antibody may minimise the length of time blood remains PCR positive and therefore reduce transmission risk.*
➢ *The two sites where there may be a 'routine' domestic risk of transmissibility are male testes or prostate (through semen) and female breasts (through breast milk). There are only two documented cases worldwide of sexual transmission of EVD. Direct infection of infants through breast milk rather than body contact is difficult to quantify due to natural maternal proximity but the absence of late cases means the risk must be low.*
➢ *The infectivity of patients with persistent or recrudescent PCR positive body fluids remains largely unknown but appears low given the lack of recurrent disease outbreaks in either the current West African cohort of >17,000 survivors or the combined previous epidemics.*
➢ *There have been no secondary cases, community or healthcare workers, from initial or recrudescent disease management to date in the UK.*
➢ *There have been no documented cases of EVD transmission through transfusions or donated tissues or organs. As a precautionary measure ACDP has advised against any donation pending review by the Advisory Committee on the Safety of Blood, Tissues, and Organs (SaBTO).*

In addition, our understanding of the maximum detection periods for key sites is set out in Table 2 below. This is subject to change as we get data from longer periods of follow up.

Table 2: Current understanding of maximum detection periods	
Eyes	*14 weeks*
Pregnancy / breast	*10 months*
Testes / semen	*9+ months*
Central nervous system	*8+ months*
Urine	*31 days*
Sweat	*40 days*
Blood	*Recrudescent disease at 20 days complicated by HIV*

Many thanks for disseminating this important message to your members as appropriate.

Yours sincerely,



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