Interim advice on the sexual transmission of the Ebola virus disease

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Transmission of the Ebola virus from male to female following exposure to infected semen of survivor has been reported in one event and has been suspected in several others. The exact mode of infection (contact, sexual transmission) has not yet been elucidated. In support of the view that Ebola virus can be transmitted via semen, a single instance of heterosexual transmission of the related Marburg filovirus, from a male survivor to a female partner, was

reported during an outbreak in 1967. Less probable, but theoretically possible, is female to male transmission.

Studies have shown that Ebola virus can be isolated from semen up to 82 days after symptom onset (Democratic Republic of Congo, 1995) and recent virus persistence studies identified genetic material (RNA) from the virus by nucleic acid amplification tests (such as RT-PCR) 406 days (13.5 months) after symptom onset. This is well beyond the period of virus detectability in the blood of survivors and long after recovery from illness. The detection of virus genetic material many months after symptom onset is assumed to reflect the continuing, or at least very recent, presence of live and potentially transmissible Ebola virus. Ebola virus RNA has also been detected by RT-PCR in vaginal fluid from one woman 33 days after symptom onset (Democratic Republic of Congo, 1995). Live virus has never been isolated from vaginal fluids. With such limited data, it is not known for how long virus typically persists in vaginal fluids, or whether it can be sexually transmitted from females to males. More surveillance data and research are needed on the risks of sexual transmission, and particularly on the prevalence of viable and transmissible virus in semen over time. In the interim, and based on present evidence, WHO recommends that:

- 1. All Ebola survivors and their sexual partners should receive counselling to ensure safer sexual practices and be provided with condoms when discharged from ETU and when enrolled in national semen and body fluid testing programmes. Safer sex strategies include postponing sexual debut, nonpenetrative sex, correct and consistent use of male or female condoms, and reducing the number of sexual partners.
- 2. Male Ebola survivors should be offered semen testing at 3 months after onset of disease, and then, for those who test positive, every month thereafter until their semen tests negative for virus twice by RT-PCR, with at least an interval of one week between tests.
- 3. Ebola survivors and their sexual partners should either (a) abstain from all types of sex or (b) observe safer sex through correct and consistent condom use until their semen has twice tested negative. Survivors should continue to receive counselling and be provided with condoms. Having tested negative, survivors can safely resume normal sexual practices without fear of Ebola virus transmission.
- 4. If an Ebola survivor's semen has not been tested, he should continue to practice safer sex for at least 12 months after the onset of symptoms; this interval may be adjusted as additional information becomes available on the prevalence of Ebola virus in the semen of survivors over time.
- 5. Until such time as their semen has twice tested negative for Ebola, or 12 months after symptoms onset if semen cannot be tested, survivors should practise good hand and personal hygiene by immediately and thoroughly washing with soap and water after any physical contact with semen, including after masturbation. During this period used condoms should be handled safely, and safely disposed of, so as to prevent contact with seminal fluids.
- 6. Even in the absence of Ebola transmission risk WHO recommends the use of condoms to prevent HIV, other STIs and unwanted pregnancy. http://www.unaids.org/en/resources/presscentre/featurestories/2015/july/20150702_condoms_prevention
- 7. All survivors, their partners and families should be shown respect, dignity and compassion.