Blood and the Zika virus

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This brief review is helpful in that it brings cardiac surgeons up-to-date on the relevance of Zika virus for our patients who may require blood transfusion. Over the past year, the public has been inundated by images of infants from South America with severe microcephaly after a Zika virus infection in the mother during pregnancy. There are now reports of Zika virus infection in Florida and Texas caused by mosquito-borne transmission. Finally, we also know that the Zika virus can be transmitted by a blood transfusion. Cardiac surgeons who may need to transfuse their patients are responsible for understanding the relevant risks of transfusion in the era of the Zika virus.

Surgeons should know that blood banks are now screening donors for risk factors for Zika virus because most people infected with the Zika virus do not manifest any symptoms. These risk factors include travel to a Zika endemic region or sexual contact with a person who has resided in or traveled to a Zika endemic region. In addition, all donor units collected in the United States and its territories are now tested for the Zika virus (since November 2016). Surgeons (particularly congenital heart surgeons) should know that the impact of postnatal infection with Zika virus during infancy on brain development is still unclear. Given the devastating effect on the brain if a fetus is infected, it would follow that postnatal infection should be carefully avoided.

As a practicing congenital heart surgeon, I appreciate the efforts of Drs Teruya and Versalovic1 to put monitoring for Zika virus on our radar screen. Blood component and transfusion practices at all institutions should be carefully reviewed to ensure the safety of our blood supply with respect to the Zika virus. Fortunately, to date there have been no confirmed transfusion-transmission cases of Zika virus in the United States. Still, our patients and their families should be aware that donors are being screened and blood units are being tested for the Zika virus. While our patients are under our care, it is our paramount responsibility to ensure they are kept safe.

Reference