

## **THE USE OF NON-INVASIVE CLINICAL SPECIMENS AS A TOOL FOR EPIDEMIOLOGICAL SURVEILLANCE OF ZIKA VIRUS**

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Zika virus (ZIKV) is an arbovirus that belongs to the Flaviviridae family and is mainly transmitted by *Aedes* mosquitoes. The first autochthonous transmission of ZIKV in Brazil was first demonstrated in May 2015, when the largest outbreak of ZIKV was established. Until the epidemiological week 32 of 2016, 196.976 probable cases were reported in the country. The use of whole blood or serum samples for ZIKV diagnosis is of undeniable importance. However, accessing these clinical specimens requires trained personal, specific collection material and equipment, processing and storage, what can be a drawback for remote locations with limited infrastructure. The use of clinical samples that are non-invasive, easy and pain-free for collection represent an ideal option for laboratory diagnosis of ZIKV. We have analyzed by real-time RT-PCR, saliva and urine samples collected from patients suspected to have infection by ZIKV. Preliminary results obtained from 44 patients showed that both saliva and urine are useful samples since the period of viral RNA detection is amplified. Sixteen serum samples resulted positive by real-time RT-PCR until the 3rd day after the initial onset of symptoms, with CT values ranging from 26,03 to 37,02. ZIKV RNA could be detected in 13 saliva samples until the 5th day after the initial onset of symptoms, with CT values ranging from 28,08 to 38,21. Sixteen urine samples resulted positive for ZIKV RNA, which could be detected until the 8th day after initial onset of symptoms, with CT values ranging from 28,8 to 38. Our preliminary data shows that the use of non-invasive samples can facilitate clinical specimens collection for ZIKV diagnosis, especially in remote areas and means an extra tool for epidemiological surveillance and support for vector control strategies.