

ZIKA TESTING IN PREGNANT AND PREGNANCY PLANNING WOMEN: THE ROLE OF PARTNERS' TESTING

Giuseppina Liuzzi¹, Emanuele Nicastrì², Concetta Castilletti³, Francesco Vairo⁴,
Angela Corpolongo², Eleonora Lalle³, Marco Iannetta², Licia Bordi³, Laura Scorzolini²,
Fabrizio Carletti³, Serena Quartu³, Francesca Colavita³, Maria Rosaria Capobianchi³,
Giuseppe Ippolito⁵

¹Antenatal and Perinatal Infectious Diseases Unit, National Institute for Infectious Diseases INMI "L. Spallanzani", Rome, Italy, ²Highly Dangerous Infectious Diseases Unit, National Institute for Infectious Diseases INMI "L. Spallanzani", Rome, Italy,

³Laboratory of Virology, National Institute for Infectious Diseases INMI "L.

Spallanzani", Rome, Italy, ⁴Emerging and Reemerging Infections, National Institute for Infectious Diseases INMI "L. Spallanzani", Rome, Italy, ⁵Scientific Director, National Institute for Infectious Diseases INMI "L. Spallanzani", Rome, Italy

Introduction: The recent increase in the number of case reports of microcephaly and other brain malformations and disorders in babies born from women who were infected with Zika virus (ZIKV) during pregnancy has prompted an increase in demand for laboratory testing to detect ZIKV infection.

According to the Ministry of Health recommendation, in Italy testing for ZIKV infection is currently recommended for all pregnant women with history of travel in a ongoing transmission area during the current pregnancy whether symptomatic or not. ZIKV test is also recommended to all exposed partners of pregnant women. No recommendations have been issued regarding couples planning pregnancies.

Objective: To describe the expanded ZIKV testing strategy in couples returning from areas with ongoing ZIKV transmission.

Methods: Since February 2016, INMI Spallanzani has implemented testing algorithm that include testing of all partners of pregnant women or with planned pregnancy.

The following information were collected: symptoms, date of onset, duration of symptoms, contact with known ZIKV cases; comprehensive travel history (dates, place, duration of visit); and vaccination history especially that associated with vaccination for flaviviruses including yellow fever.

Results: From February 2 to October 31, 2016, 199 women with ongoing or planned pregnancy were tested for ZIKV, 87 (43.7%) partners were counseled and tested. Despite no ZIKV infection in women, 3 partners were ZIKV positive by PCR and serology. Two of them reported unspecific symptoms and one was asymptomatic. ZIKV was detected by PCR in the seminal fluid of the 2 positive partners up to 4 months after symptom onset.

Conclusions: Our expanded testing strategy allowed the diagnosis of two additional ZIKV cases which would have been missed due to absence or mildness of symptoms. The prolonged viral shedding in the semen of the partner of ZIKV-negative women with ongoing or planned pregnancy highlights the important role of partner testing in order to prevent a possible ZIKV sexually transmitted infection.

As with other sexual transmitted infectious diseases, family planning healthcare services in areas with no ongoing transmission should evaluate the inclusion of ZIKV epidemiological and virological investigation in women and their partners with history of travel in areas with ongoing transmission.