Late sexual transmission of Zika virus related to persistence in the semen

Sexual transmission of Zika virus related to infected semen is now well established.[1] Despite the fact that Zika virus RNA can persist in semen for up to 62 days after the beginning of the infection, no secondary case has been reported more than 19 days after the onset of signs in the man.[2] We report the case of a woman presenting a Zika virus infection 44 days after the onset of symptoms in the partner, which corresponds to a sexual transmission occurring between 34 and 41 days after the index case.

The couple (the man aged 61 years and the woman aged 60 years) travelled to Martinique (a French Caribbean island). They returned to France on Feb 7, 2016. On Feb 4, 2016, the man reported a maculopapular rash, conjunctival hyperaemia, and arthralgia, without fever. He reported no haematospermia or dysuria. Virological diagnosis was done as previously described.[1] Serological analyses done 53 days since symptom onset indicated the presence of anti-Zika virus IgM and anti-flavivirus IgG; the specificity was confirmed by the presence of anti-Zika neutralising antibodies. A urine sample obtained on day 53 and a semen sample obtained on day 67 since symptom onset were both negative for Zika virus RNA by RT-PCR.

The woman had no symptoms during the trip to Martinique. 40 days after her return, she presented with a maculopapular rash and arthralgia without fever. Urine and serum were sampled 9 days after symptoms onset. RT-PCR done on the urine sample was positive for Zika virus RNA. Serological analyses were positive for anti-Zika virus IgM and anti-flavivirus IgG, confirming the diagnosis of an acute Zika virus infection (figure).

This couple do not live and have not stayed after their trip in an area where the vector *Aedes* spp is endemic. Neither of them had received any blood component transfusion. The couple reported having unprotected sexual intercourse several times after their return, about once a week.

Considering an incubation time between 3 and 12 days for the woman as previously suggested, the chronology of the events supports the hypothesis of a delayed sexual transmission, which occurred between 32 and 41 days after the onset of signs in the man.[3]

According to this delayed transmission during a period of 30 days, WHO and European guidelines—which currently suggest that travellers returning from an endemic area should use protection during sex for 1 month after their return—should be extended, especially in the case of sexual intercourse involving women of reproductive age.[4,5]

We declare no competing interests.

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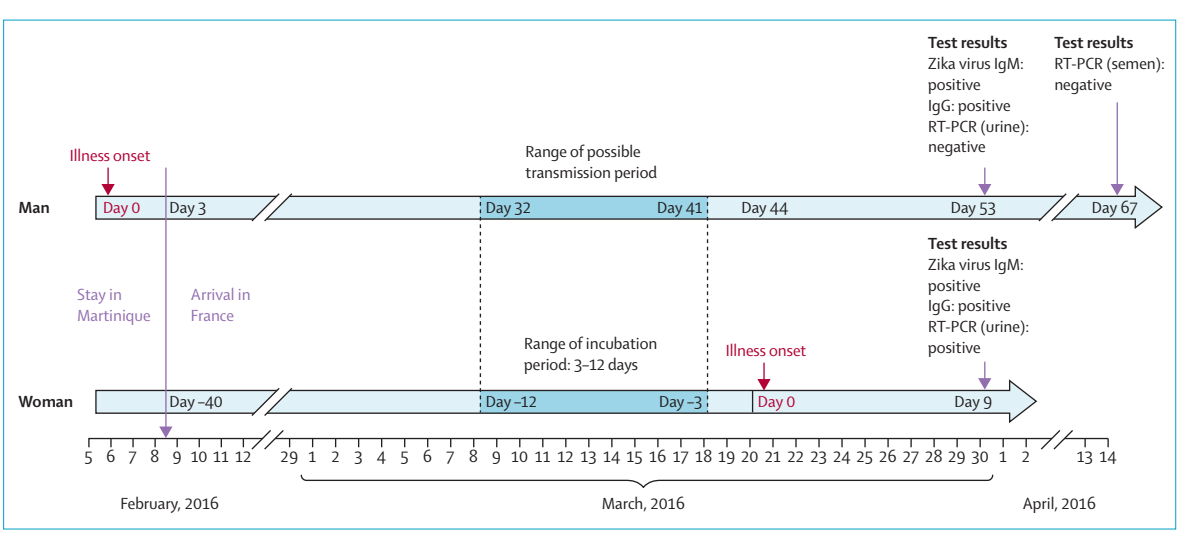

Figure: **Clinical timelines of the key dates of exposure to Zika virus for the man and woman**