

**Response to:****Seroprevalence of Herpes simplex virus types 1 and 2 in Indian and Filipino migrant populations in Qatar: a cross-sectional survey**

Nasrallah G, Dargham S, Harfouche M, Abu-Raddad L. Seroprevalence of herpes simplex virus types 1 and 2 in Indian and Filipino migrant populations in Qatar: a cross-sectional survey. *East Mediterr Health J.* 2020;26(5):609–615. <https://doi.org/10.26719/2020.26.5.609>

**Comment on article “Seroprevalence of Herpes simplex virus types 1 and 2 in Indian and Filipino migrant populations in Qatar: a cross-sectional survey”**

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Sir,

In May 2020, Nasrallah et al. published their study titled “Seroprevalence of herpes simplex virus types 1 and 2 in Indian and Filipino migrant populations in Qatar: a cross-sectional survey” (1). It is an interesting work that the authors evaluated the seroprevalence rates of herpes simplex virus types 1 and 2 (HSV-1 and HSV-2) in Filipino and Indian migrant populations in Qatar. Despite its strengths, a technical issue should be further considered.

The key of the study was the stability of antibodies to herpes simplex virus types 1 and 2, which were measured by HerpeSelect® 1/2 and Euroline-WB assays (2). According to the authors, “The study samples consisted of Filipino and Indian male blood donors who donated blood between June 2013 and June 2016 at Hamad Medical Corporation, the largest provider of health care in Qatar. The blood specimens were collected – originally for other studies – from 120 Filipino and 620 Indian male adults aged ≥ 18 years”, the blood specimens were obtained from June 2013 to June 2016 for other studies and some

samples were stored for up to five years (3–6). The storage conditions and the testing time of serum specimens were not introduced in the ‘Methods’. To date, there is no report that the antibodies titers to HSV-1 and HSV-2 were stable during five years. The antibody titers against HSV-1 and HSV-2 may decrease after long-term storage, especially the seropositive sample with cut-off titer. The stability of the antibody titers to HSV-1 and HSV-2 may influence the results of the survey.

Notably, the relationship between storage conditions and antibody titers to herpes simplex virus should be further analyzed. The storage conditions of long-term stored blood specimens should be included in the ‘Materials and Methods’ during seroprevalence studies of HSV in the future. If the seropositive samples for HSV-1 and HSV-2 were still stored, we strongly advice that HerpeSelect® 1/2 and Euroline-WB assays should be performed and further analyzed the relationship between antibody titers to herpes simplex virus and different storage conditions.

**References**

1. Nasrallah G, Dargham S, Harfouche M, Abu-Raddad L. Seroprevalence of herpes simplex virus types 1 and 2 in Indian and Filipino migrant populations in Qatar: a cross-sectional survey. *East Mediterr Health J.* 2020;26(5):609–615. <https://doi.org/10.26719/2020.26.5.609>
2. Dargham SR, Nasrallah GK, Al-Absi ES, Mohammed LI, Al-Disi RS, Nofal MY, et al. Herpes simplex virus type 2 seroprevalence among different national populations of Middle East and North African men. *Sex Transm Dis.* 2018;45(7):482–7. <https://doi.org/10.1097/OLQ.0000000000000791>
3. AbuOdeh RO, Al-Absi E, Ali NH, Khalili M, Al-Mawlawi N, Hadwan TA, et al. Detection and phylogenetic analysis of human pegivirus (GBV-C) among blood donors and patients infected with hepatitis B virus (HBV) in Qatar. *J Med Virol.* 2015;87(12):2074–81. <https://doi.org/10.1002/jmv.24289>

4. AbuOdeh R, Al-Mawlawi N, Al-Qahtani AA, Bohol MF, Al-Ahdal MN, Hasan HA, et al. Detection and genotyping of torque teno virus (TTV) in healthy blood donors and patients infected with HBV or HCV in Qatar. *J Med Virol*. 2015;87(7):1184–91. <https://doi.org/10.1002/jmv.24146>
5. Nasrallah GK, Al Absi ES, Ghandour R, Ali NH, Taleb S, Hedaya L, et al. Seroprevalence of hepatitis E virus among blood donors in Qatar (2013–2016). *Transfusion*. 2017;57(7):1801–7. <https://doi.org/10.1111/trf.14116>
6. Al-Qahtani AA, Alabsi ES, AbuOdeh R, Thalib L, El Zowalaty ME, Nasrallah GK. Prevalence of anelloviruses (TTV, TTMDV, and TTMV) in healthy blood donors and in patients infected with HBV or HCV in Qatar. *Virology*. 2016;13(1):208. <https://doi.org/10.1186/s12985-016-0664-6>

### Response by authors

Sir,

We thank the authors for their comment on our study. We would like to clarify that the plasma was separated from whole blood by centrifugation, aliquoted in 1.5 Eppendorf tubes, and stored at -80° C freezer until time of analysis. All samples were collected between 2013-2016 and the testing on the samples was completed by 2017. The manuscript reporting the results was submitted for publication to the Eastern Mediterranean Health Journal in April of 2018, but was published recently.

As indicated by the authors, we are not aware of existing studies that assessed the effect of storage conditions on the stability of the antibody titers to herpes

simplex virus type 1 (HSV-1) and type 2 (HSV-2) infections. However, the duration between sample collection and testing, as indicated above, is not as long as the authors seem to think based on the publication date of this article. The seroprevalence results also agreed with existing evidence (1-6), further supporting these results. Of note that in another study on these blood donor specimens, we found HSV-1 seroprevalence levels that were nearly 100% (3), supporting the stability of the antibody titers.

In conclusion, we agree with the authors that it is of value to investigate the effect of storage conditions and timing on the stability of the antibody titers to HSV-1 and HSV-2 infections, but this issue is unlikely to affect the results reported in our study.

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### References

1. Khadr L, Harfouche M, Omori R, Schwarzer G, Chemaitelly H, Abu-Raddad LJ. The Epidemiology of Herpes Simplex Virus Type 1 in Asia: Systematic Review, Meta-analyses, and Meta-regressions. *Clin Infect Dis*, 2019;68(5):757-772.
2. Dargham SR, Nasrallah GK, Al-Absi ES, Mohammed LI, Al-Disi RS, Nofal MY, et al. Herpes Simplex Virus Type 2 Seroprevalence Among Different National Populations of Middle East and North African Men. *Sex Transm Dis*, 2018;45(7):482-487.
3. Nasrallah GK, Dargham SR, Mohammed LI, Abu-Raddad LJ. Estimating seroprevalence of herpes simplex virus type 1 among different Middle East and North African male populations residing in Qatar. *J Med Virol*, 2018;90(1):184-190.
4. Smith JS, Robinson NJ. Age-specific prevalence of infection with herpes simplex virus types 2 and 1: a global review. *J Infect Dis*, 2002;186 Suppl 1:S3-28.
5. Smith JS, Herrero R, Muñoz N, Eluf-Neto J, Ngelangel C, Bosch FX, Ashley RL. Prevalence and risk factors for herpes simplex virus type 2 infection among middle-age women in Brazil and the Philippines. *Sex Transm Dis*, 2001;28(4):187-94.
6. Celentano DD, Mayer KH, Pequegnat W, Abdala N, Green AM, Handsfield H, et al. Prevalence of Sexually Transmitted Diseases and Risk Behaviors from the NIMH Collaborative HIV/STD Prevention Trial. *Int J Sex Health*, 2010;22(4):272-284.