# **Epstein Barr Virus**



#### Contents

- Condition
- · Individual at risk
- Guidance at RECRUITMENT
- Guidance at CT
- Guidance at WORK-UP
  - Outcomes and recommen ded actions based on EBV serology and PCR:

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- Justification for
  quidance
- guidance References
- Notes

# Condition

Herpes virus causing glandular fever (infectious mononucleosis).

# Individual at risk

Recipient (and ?donor)

# Guidance at RECRUITMENT

ACCEPTABLE

# Guidance at CT

ACCEPTBALE

#### Guidance at WORK-UP

The following serological tests should be obtained

- VCA-IgM
- VCA-IgG
- (EBNA-IgG)

If VCA-IgM is positive, EBV-PCR should be undertaken

# Outcomes and recommended actions based on EBV serology and PCR:

Potential serology/PCR combinations:

1) VCA-IgM neg AND VCA-IgG pos or neg.

OR

VCA-IgM-pos AND VCA-IgG pos AND EBV-PCR = negative

Donor can be cleared - transplant centre should be informed for serological/PCR status

2) VCA-IgM-pos AND VCA-IgG and/or EBNA weak or negative AND EBV-PCR=negative

IgM could be non-specific or donor has acute (inapperent) infection

The clinical picture (e.g. sore throat, swollen lymph glands) as well as laboratory parameters (lymphocytosis, atypical lymphocytes on blood smear) should be correlated with serology, and taken into account for reasons of donor safety. Consider more specific immunoblots to validate the serology results. Results should be communicated with transplant centre.

3) EBV-PCR = positive

Donor cannot be cleared at the current timepoint. Inform transplant centre and discuss potential donor deferral.

# Justification for guidance

Primary EBV infection or reactivation in a transplant recipient is associated with post-transplant lymphoproliferative disease, amongst other morbidity.

#### References

Buisson, M., Fleurent, B., Mak, M., Morand, P., Chan, L., Ng, A., ... Seigneurin, J. M. (1999). Novel Immunoblot Assay Using Four Recombinant Antigens for Diagnosis of Epstein-Barr Virus Primary Infection and Reactivation. Journal of Clinical Microbiology, 37(8), 2709–2714. [1]

APA Recommendations of the Center for International Blood and Marrow Transplant Research (CIBMTR®), the National Marrow Donor Program (NMDP), the European Blood and Marrow Transplant Group (EBMT), the American Society of Blood and Marrow Transplantation (ASBMT), the Canadian Blood and Marrow Transplant Group (CBMTG), the Infectious Disease Society of America (IDSA), the Society for Healthcare Epidemiology of America (SHEA), the Association of Medical Microbiology and Infectious Diseases Canada (AMMI), and the Centers for Disease Control and Prevention (CDC), Tomblyn, M., Chiller, T., Einsele, H., Gress, R., Sepkowitz, K., ... Boeckh, M. A. (2009). Guidelines for Preventing Infectious Complications among Hematopoietic Cell Transplant Recipients: A Global Perspective. Biology of Blood and Marrow Transplantation: Journal of the American Society for Blood and Marrow Transplantation, 15(10), 1143–1238. doi:10.1016/j.bbmt.2009.06.019 [2]

#### **Notes**

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