Coronavirus - COVID-19

Creato da Lydia Foeken, ultima modifica il mar 03, 2020

BACKGROUND

A novel coronavirus (now named SARS-CoV-2, with the resulting illness named COVID-19) emerged in Wuhan, China in December 2019. The World Health Organization (WHO) declared a global health emergency on 30 January 2020, and a number of blood and tissue donor guidelines have been issued - largely based on previous guidelines for SARS-CoV and MERS-CoV. Like SARS and MERS, COVID-19 initially displayed high mortality but low infectivity, with limited person-to-person transmission. However, the epidemic has quickly evolved to display lower mortality but higher infectivity with increasing and sustained person-to-person transmission. A particular feature of this epidemic has been the variety and extent of public health measures taken in different regions. While such measures no doubt decrease the risk that an infected HPC donor could progress to donation or even work-up assessment, they are also presenting major challenges in logistics and transport. The rapid evolution of this epidemic demands a precautionary yet flexible approach to suitability guidelines.

AT VERIFICATION TYPING OR WORKUP

Geographical risk – donors returning from a risk area

Collection should be deferred for four (4) weeks after a donor's return from an area with sustained local transmission of COVID-19. To identify countries with sustained local transmission, registries may refer to national health authorities and/or trans-national sources such as WHO and the European Centre for Disease Prevention and Control, ECDC.

If the patient's need for transplant is urgent, the donor is completely well and there are no suitable alternative donors, earlier collection may be considered subject to careful risk assessment if local quarantine requirements permit.

Risk assessment should be based on:

- When the donor left the risk area.
- Which cities the donor visited.
- Any contact with a person with known COVID-19 infection.
- If possible, a negative PCR result at or after work-up.

Geographical risk – donors residing in a risk area

To identify countries with sustained local transmission, registries may refer to national health authorities and/or trans-national sources such as WHO and the European Centre for Disease Prevention and Control, ECDC. Collection should be deferred for four (4) weeks after any contact with a person with confirmed COVID-19 infection (see below) and/or travel to another risk country (see above). In the absence of known contact with COVID-19, collection may be considered subject to careful risk assessment and local public health restrictions if the patient's need for transplant is urgent, the donor is completely well and there are no suitable alternative donors.

Risk assessment should be based on:

- The risk level in the donor's region.
- Recent travel to high-risk regions.
- Any contact with a person with known COVID-19 infection.
- If possible, a negative PCR result at or after work-up.
- Cryopreservation - pre-planned cryopreservation may be considered if there is concern that the donor is at risk of community-acquired infection after the patient starts conditioning. Cryopreservation in this scenario could allow patient conditioning to be withheld until a successful collection is confirmed.

Contact with 2019-nCoV – donors who report contact with a confirmed case

Collection should be deferred for four (4) weeks after a donor's last contact with a person with confirmed COVID-19 infection. If the patient's need for transplant is urgent, the donor is completely well and there are no suitable alternative donors, earlier collection may be considered if local quarantine requirements permit, subject to careful risk assessment.

Risk assessment should be based on:

- The last date of contact.
- The nature of the contact.
- The results of post-contact testing for COVID-19/SARS-CoV-2.
- The possibility of PCR testing at or after work-up.

History of 2019-nCoV infection

Collection should be deferred for three (3) months after recovery. If the patient's need for transplant is urgent, the donor is completely well and there are no suitable alternative donors, earlier collection may be considered subject to careful risk assessment if local quarantine requirements permit.

Risk assessment should be based on:

- The date of full recovery.
- The duration and severity of illness.
- The results of post-recovery testing.
- Note that there is emerging evidence that SARS-CoV-2 RNA can remain detectable by PCR for an extended period after full recovery. Detectable RNA does not necessarily equate to infectivity, and other coronaviruses (including SARS-CoV and MERS-CoV) have not displayed transmissibility via blood or HPC. Nonetheless it is possible that a donor with detectable SARS-CoV-2 RNA could be considered a potential infective risk to staff and other donors at a collection centre.

Additional 2019-nCoV questions

Geographical risk:

- China, the first country affected by 2019-nCoV, already carries risk for malaria and dengue fever. Therefore any existing protocols that are in place to capture geographical risk for China should be modified to trigger a 2019-nCoV deferral.
- If other countries are affected, further modification of travel questions will be required.
- Strict quarantining and travel restrictions, while they are in place, will tend to minimise the need for a specific travel question.

Contact with 2019-nCoV:

- Likewise, the application of public health measures will make it unlikely that a donor will reach VT or WU stage without being isolated. By the time such measures are withdrawn, it is possible that the risk from 2019-nCoV will have diminished.
- Therefore a specific "2019-nCoV contact" question may be unnecessary.

History of 2019-nCoV infection:

- A donor who has recently recovered from 2019-nCoV seems very likely to report this in response to general health questions at VT or WU, as public health follow-up is likely to be diligent.
- Therefore a specific "recent 2019-nCoV infection" question may be unnecessary.

RATIONALES

There has been some evidence of person-to-person transmission during the pre-symptomatic phase. Other coronaviruses (as noted above) have not displayed transmissibility via blood or hematopoietic progenitor cells (HPC), which suggests that the blood phase of this group of viruses is limited to the symptomatic phase. Even if this virus is not an infective risk for HPC, however, the quarantine/isolation requirements for at-risk people will likely make affected HPC donors unavailable for at least 14 days – the commonly accepted upper limit for COVID-19 incubation.

With limited information and a rapidly evolving epidemic, individual cases should ideally be assessed in consultation with infectious disease and/or public health experts.

REFERENCES

WHO: https://www.who.int/emergencies/diseases/novel-coronavirus-2019

ECDC: https://www.ecdc.europa.eu/en/publications-data/risk-assessment-outbreak-acute-respiratory-syndrome-associated-novel-1

WBMT: WBMT_COVID-19-2.pdf

COVID-19 is presenting major logistical challenges in managing and assessing HPC donors and in collecting and transporting HPC products. WMDA has developed a publicly-available resource page at https://share.wmda.info/x/Yj6OF.

Nessuna etichetta