Cell Therapy Transplant Canada

Position Statement on COVID-19

Latest Revision: April 16, 2019

CTTC is monitoring closely the rapidly evolving situation and is committed to engaging and supporting our membership. We have scheduled a series of virtual town halls, have dedicated a web page to collate and aggregate position statements from other societies, and have an online forum for community discussion (CTTCanada.ca).

1. Centres should identify backup donor options for patients undergoing allogeneic transplant from unrelated donors (haploidentical related donors, cord blood donors). The logistics of hematopoietic stem cell transplant (HSCT) are likely to become more challenging as time goes on. Canadian Blood Services (CBS) is able to assist with logistics of product transport, and in the use of cord blood products as alternate sources of stem cells.

2. Commercial couriers should be used for stem cell transport. Within Canada, options for commercial couriers are limited and transplant team staff may be required to collect products. Ideally, staff without direct patient care responsibilities should be chosen.

3. Centres should cryopreserve all allogeneic donor products coming from donation centres outside Canada before the start of the preparative regimen.

4. If resources exist, consideration should be given to cryopreservation by the collection centre, with stem cells transported to the centre in a similar manner to cryopreserved cord blood units.

5. Unrelated donors from within Canada and family/related donors should also be collected and cryopreserved prior to starting the recipient starting preparative regimen, due to a risk of the development of infection in the donor between the start of chemotherapy and collection.

6. The evidence does not support a waiting period between the arrival of a stem cell product and the start of a preparative regimen. There has been no demonstrated transmission of SARS-CoV-2 from a cryopreserved product to a recipient, and the risk of relapse during a waiting period is very real. The preparative regimen can begin as soon as cryopreserved stem cells are secured in house.

7. Due to resource implications (operating room availability, additional time required to cryopreserve marrow products), bone marrow harvests should not routinely performed.

8. For donors who have developed COVID-19, a 28 day deferral is required, to comply with Health Canada CTO regulations.

9. Donor questionnaires should be updated to include questions specific to risk factors for COVID-19. CBS has developed questionnaires that can be adapted for related/autologous donors.

10. All collected CTP should only be distributed and released for infusion under exceptional release. This is to comply with the updated donor screening questionnaire provided to comply with CTO regulations regarding COVID-19 prevalence and travel to an area with an emerging endemic disease. Although there is currently no evidence of transmission in blood or marrow products the ER provides necessary documentation of informed consent as per the regulations.

11. For labeling and storage, cryopreserved product should be identified with a "quarantine- exceptional release required" tag or sticker. They do not need to be in a separate freezer if stored in vapour phase of freezer. If storing in liquid phase physical separation would be required.

12. Prior to the start of the preparative regimen, all donors should be screened clinically for signs and symptoms of COVID-19, and transplant deferred if symptoms are present. Consideration should be given to testing asymptomatic donors. A positive asymptomatic donor would be at risk of becoming symptomatic prior to collection, which would have resource implications and pose a risk to collection staff. There is not thought to be a risk of transmission of SARS-CoV-2 in cryopreserved stem cell products, but the level of evidence to support this hypothesis is low.

13. Centres should test for SARS-CoV-2 in asymptomatic transplant recipients. While the sensitivity of this test in this scenario is unknown, a positive test would change management. Recipients with a positive test are at risk for development of symptoms later in their disease course, after cytotoxic or immunosuppressive therapy, which would likely be associated with adverse outcomes. In addition, they are at risk of transmission of infection to health care workers and other highly vulnerable transplant patients.

14. Strong consideration should be given to universal personal protective equipment when providing care to all transplant recipients, as recipients are highly vulnerable patients post-transplant.

15. Strong consideration should also be given to testing asymptomatic staff members working on transplant wards. This statement is based on the known risk of transmission by asymptomatic viral carriers, and the very high risk of morbidity and mortality in transplant recipients, based on initial data from the EBMT COVID registry.

16. It is possible that access to diagnostic imaging, consulting medical services, and intensive care units will become strained in the coming weeks. Health care workforces are also likely to be challenged, and the blood supply is already under pressure. Drug shortages are possible. Given that, it is prudent to delay elective or non-urgent transplants, to minimize the risk to these patients until there is stabilization of these issues.

17. We recommend delaying all elective transplants (for example, transplants for hemoglobinopathies, combined immunodeficiencies (non-SCIDS)).

18. We suggest proceeding with autologous stem cell transplants done with curative intent for diseases at high risk of progression in the next several months (examples include autologous stem cell transplant for Diffuse Large B-Cell Lymphoma and Hodgkin Lymphoma, and allogeneic stem cell transplant for acute leukemia)

19. Given the rapidly evolving clinical situation, we suggest that triaging of transplants be evaluated on a regular basis, evaluating the ability of the local health system to have resources to support patients through transplant.

20. Access to out-of-country CAR-T therapy is likely to be challenging, and capacity within Canada cannot meet current usage. Some American centres are still accepting patients from out of country. Centres should ensure they have appropriate supply of tocilizumab sequestered for specific CAR-T patients prior to infusion of cells, as given the widespread off label use of this medication in COVID-19 patients, shortages are likely.