Kidney transplants are part of a list of essential services that suffered an unexpected consequence at the onset of COVID-19 when the threat of the coronavirus impacted a donor’s ability to travel. The potential life-threatening outcomes to patients were not a viable option for the teams working at Canadian Blood Services (CBS) and Air Canada.

Through its Kidney Paired Donation (KPD) program, Canadian Blood Services works with provincial living kidney donation and kidney transplant programs to match transplant candidates with donors.

Prior to the pandemic, matched kidney donors would have travelled to the transplant centre where the recipient was scheduled to have their transplant surgery. If a living donor in Toronto was matched with a patient in Vancouver, for example, that donor would have flown across the country to have surgery to donate their kidney.

When the pandemic was declared by the World Health Organization, however, transplant programs across the country suddenly had to put this process on pause.

In May 2020, the clinical committees that advise Canadian Blood Services on living organ donation and transplantation activities in Canada recommended that matched donors no longer be required to travel using public transportation methods such as planes or trains to get to the recipient’s transplant centre.

Instead, to minimize the chance of exposure to the coronavirus, the committees recommended that donors who could not travel to the recipient’s transplant centre using private transportation should have their kidney removed at their own local transplant centre and shipped to the recipient.

"With COVID-19, the number one priority of the KPD program continues to be donor and recipient safety," said Sarah Parfeniuk, program manager for living organ donation and transplantation at Canadian Blood Services.

Pivoting to a new standard practice of transporting kidneys instead of donors, however, posed some challenges for the KPD program. In the past, said Parfeniuk, kidneys from living donors have only been shipped in exceptional circumstances, usually on direct Air Canada flights.

"We needed support from somewhere – and quickly – to ensure that we could continue to make transplants happen, even if donors could no longer travel," she said.

"Knowing that Air Canada had previously shipped solid organs for some transplants, our senior leadership team reached out to see if they could possibly provide some guidance."
Not only did Air Canada agree to collaborate with Canadian Blood Services to review their standard operating procedures for the transportation of human organs, they offered to begin routinely shipping kidneys from living donors, free of charge.

“Working together with Canadian Blood Services to transport kidneys from a donor’s origin point to the recipient’s destination is an excellent illustration of our employees recognizing that despite the many challenges that the pandemic presents, the need to transport essential shipments remains and there is always a solution. Our team is honoured to play a role in assuring that individuals who need lifesaving medical care can continue to receive it,” said Dr. Jim Chung, Chief Medical Officer at Air Canada.

With Air Canada’s support, the KPD program has been able to successfully ship 14 donated kidneys to patients in need across Canada since the program restarted in June 2020. Seven have been flown through Air Canada, with five additional shipments scheduled for March 2021.

“These are transplants that simply would not have taken place if it wasn’t for Air Canada,” said Parfeniuk.

Since June 2020, Air Canada and Canadian Blood Services have also been working closely to develop a comprehensive outline of the communication responsibilities between transplant programs and Air Canada throughout the kidney shipment process.

“The hope is that this will give transplant coordinators confidence when they are shipping a kidney, knowing that each step has been laid out,” said Parfeniuk.

Time is of the essence in organ transplantation, and kidneys from living donors have been shown to perform best when transplanted within approximately 16 hours of removal from the donor. This makes it critical for transplant coordinators to be able to closely track the organ during its flight and ensure that it gets where it needs to go, on time.

For Air Canada’s part, supporting Canadian Blood Services and the national transplantation system during these unprecedented times has served as an important opportunity for the airline to help ensure that essential services like kidney transport and transplantation continue to be available and accessible for Canadians in need during the pandemic.

“COVID-19 has changed many of the ways that we do business. This is a clear example of why we need a robust and healthy aviation sector. We transport about three unaccompanied emergency live organs in the cabin or flight deck a week in addition to the over 3000 pre-pandemic and 1500 post pandemic non-emergency live organs as cargo each year,” Dr. Jim Chung said.

For more information about emergency live kidney transportation, please visit blood.ca.
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