Request for Proposal

The impact of strategies to increase use of transplantation in Alberta on patient outcomes, health care and patient-borne costs, and the health care system

By: The Alberta ORGANization Group

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Proposal Due Date: June 5, 2017

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Proposed Timelines:

Task	**Description**	**Date**
1	RFP release	May 17, 2017
2	Proposal submission deadline	June 5, 2017
3	Notification of outcome of proposal	June 17, 2017
4	Work commencement – stage 1	June 17, 2017
5	Presentation of preliminary analyses and receipt of feedback from group	~July 25, 2017
6	Commence stage 2 work	July 25, 2017
7	Draft report submitted	Sept 15, 2017
8	Final report submitted	Oct 1, 2017

* there is some flexibility in timelines; if required, submitters can suggest alternate timelines

Who we are:

The Alberta ORGANization Group includes committed philanthropists, transplant physicians, some affected patients and family members, and other stakeholders whose goal is to increase overall transplant activity in Alberta. To do this, they seek to use evidence, and the economic impact of transplantation overall, in comparison to standard of care, to inform the implementation of strategies to increase transplantation.

Background: Each year in Alberta, over 650 people develop end-stage renal disease requiring renal replacement therapy (i.e., dialysis or transplantation). As of March 2017, the waiting list in Alberta for kidney transplantation numbers 380 individuals. There are also 65 people waiting for liver transplants, and 25 for hearts, and 42 for lung transplants. Of note, it is likely that these numbers do not reflect the true need as many patients in need are never put on the waitlist due to the unlikelihood of finding a donor.

Kidney transplantation, while not a cure for kidney disease, is the optimal therapy for eligible patients with advanced kidney failure. Transplantation improves survival and quality of life in comparison to dialysis. For these same reasons, and because it reduces healthcare costs, kidney transplantation is also the preferred treatment for advanced kidney failure for healthcare payers. In Alberta, for people under the age of 60 who have no history of cancer or heart disease – and would usually be considered good candidates for transplant – 11 of 12 patients start therapy with dialysis while only one in 12 receives a pre-emptive transplant.

There are two main types of kidney transplantation, deceased donor and living donor transplantation. In Alberta, for patients without a living donor, wait times for a deceased donor transplant often exceed seven years, and many patients will either die waiting for a deceased donor transplant, or become too ill to receive one.

Transplantation of other organs is lifesaving for individuals with organ failure (liver, lung, heart) where alternative therapies do not exist or are less effective. Approximately one third of patients awaiting liver transplantation, for example, will never receive one and will die waiting. Almost half (20/42) of citizens who are candidates for a lung transplant never receive the organ that would save their life. Waitlist mortality for infants and children is generally even higher because donors of appropriate size are rare. The costs of caring for patients with end-stage organ failure are substantial, and without access to transplantation, these costs are incurred with poor outcomes. Tissue and corneal donation dramatically improve quality of life for individuals receiving these transplants. Increased donation could avoid current costs associated with purchasing these tissues from foreign suppliers. ***The scarcest resource for all organ transplants is the organ itself.*** Although live donors can help some patients receive a liver or kidney transplant, people awaiting new hearts, lungs, pancreas, islets, intestine and tissues require donation from deceased donors.

Alberta could substantially improve deceased and living donor transplantation by investing in strategies and infrastructure that have led to increased donor rates in other provinces, such as donor registries, public education, donation physicians and investment in transplant programs.

Transplant programs are organized differently at different sites across Alberta, and, in contrast to all other provinces, there are currently two separate donor agencies within Alberta instead of a single agency. Plans to develop the Alberta Organ and Tissue Donation Agency were initiated with the passage of Bill 207, and a donor registry has been established. However, major transformative change in the organ donation and transplantation area is required to improve both the access to transplantation for patients in need, and to allow the fulfillment of end-of-life wishes for all Albertans wanting to give the gift of life.

Description of work:

To inform us, transplant programs, healthcare payers (Alberta Health, Alberta Health Services) and other stakeholders, we are requesting an evidence brief, and cost-effectiveness analysis of options for increasing organ and tissue transplantation in Alberta for transplant candidates. There are two parts to this analysis.

1. An evidence brief of the most effective options where investment may lead to an increase in organ donation and transplantation (i.e. provincial donation and transplantation agency; hospital donation specialists, public education campaigns, provider education programs, investment into transplant programs, other options, etc). Within the evidence brief, we ask that you specify which options you recommend to be the focus of the second phase of work and why. An estimate of the cost to implement each option should be provided.

2. A cost-effectiveness analysis looking at the impact of these strategies to increase transplantation on patient outcomes (including the number of people dying while waiting and the resources required for their medical care), and costs – specifically those borne by health care payers, patients, and by employers and insurers, as well as government ministries outside health (Canada Pension Plan, Alberta Income Support for the Severely Handicapped, etc), including the high cost of care, typically in intensive care units, for patients who ultimately die due to end-stage organ failure without ever receiving a transplant. The broader impact on the health care system should also be considered (impact on use of dialysis and need for additional hemodialysis units; impact on use of ventricular support devices for patients with end-stage heart failure needing transplants, etc; transplant resources; hospitalization).

We are interested in the impact on transplantation in Alberta overall (including how each strategy might impact the number of deceased donors – and hence the number of organ transplants overall – and living donors (relevant to kidney transplant)). As an initial step, to justify the economic impact of the strategy, the model may choose to focus on kidney transplantation, with the potential impact for patients with other organ failure described in an ancillary section. The impact on waiting times for patients awaiting organ transplants should also be highlighted. We are also interested in understanding how strategies that vary in effectiveness and cost might impact patients with kidney failure who are eligible for kidney transplantation or waiting for organ transplantation more broadly – in order to help determine which strategies noted above might be optimal to invest in to optimize outcomes for those with organ failure and society more broadly.

Since a strategy to increase transplantation would have resource implications for transplant programs, a section outlining the impact of increased transplantation activity on the cost of operating existing transplant programs should be provided.

Proposal Requirements:
The proposal to undertake this work should include two parts, including a technical proposal and a financial proposal. In the technical proposal, the submitter must discuss the experience and qualifications of their team.

They should provide a high-level workplan outlining how they will address the questions and topic areas described above. They should specify what outcomes they will track within the cost-effectiveness analysis (i.e. clinical outcomes including the impact on the number of people dying on dialysis; impact on patient waiting time; and cost outcomes including direct costs to health care system, costs to insurers and other government ministries, and costs borne by patients (please be specific regarding which categories will be included, and the data sources)). This should include the key tasks, resources assigned and dates (i.e. milestones) demonstrating how this work can be completed in the time allocated.

In the financial proposal, submitters are required to submit a budget detailing estimates of the cost for the various phases of work to be completed. We expect that this work can be completed by an individual with expertise in health economics working full-time over the course of 3-4 months. Where applicable, hourly wages should be provided, and if applicable, GST should be included. The maximum allowable budget for this project is $25,000.

Deliverables:
The deliverables will be in two stages. In the first stage, we would ask the contractor to present a preliminary evidence brief outlining the most effective options where investment may lead to an increase in organ donation and transplantation. As well, an overview of the model that would be used to conduct stage 2, and the required data sources should be presented. This presentation would be to the overall group, who would provide feedback on the strategies to focus on, and the proposed model. A brief executive summary, including a lay summary, should accompany the slide set.

Once approved, the contractor would move on to the next stage which would involve a final report of approximately 20 pages in length, with relevant appendices, an executive summary, and a lay summary for public distribution. In the summary, we would ask for an overview of how Alberta is performing with respect to transplantation structure, and wait times, in comparison to other provinces and countries.

Contracting agency:
Alberta Transplant Institute, University of Alberta:
The funds would be dispersed in three parts:
1/3 of funds upon signing of the contract
1/3 of funds upon completion of stage 1
1/3 of funds upon submission of a satisfactory final report (stage 2)