PAPER

Should we perform kidney transplants on foreign nationals?

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ABSTRACT

In Canada, there are currently no guidelines at either the federal or provincial level regarding the provision of kidney transplantation services to foreign nationals (FN). Renal transplant centres have, in the past, agreed to put refugee claimants and other FNs on the renal transplant waiting list, in part, because these patients (refugee claimants) had health insurance through the Interim Federal Health Programme to cover the costs of medication and hospital care. However, severe cuts recently made to this programme have forced clinicians to question whether they should continue with transplants for FNs, for financial and ethical reasons. This paper first examines different national policies (eg, in Canada, USA, France and the UK) to map the diversity of approaches regarding transplantation for FNs, and then works through different considerations commonly used to support or oppose the provision of organs to these patients: (1) the organ shortage; (2) the free-rider problem; (3) the risk of becoming a transplant destination; (4) the impact on organ donation rates; (5) physicians' duties; (6) economic concerns; (7) vulnerability. Using a Canadian case as a focus, and generalising through a review of various national policies, we analyse the arguments for and against transplantation for FNs with a view to bringing clarity to what is a sensitive political and clinical management issue. Our aim is to help transplant centres, clinicians and ethicists reflect on the merits of possible options, and the rationales behind them.

INTRODUCTION

The provision of medical care, and particularly kidney transplantation, to non-residents is a matter of heated debate and has made the headlines in the USA.[1 2] In Canada, two recent legal and policy decisions have further fuelled this debate. First, in 2011, an illegal immigrant was denied access to federal health insurance to cover the costs of her medical care, a decision confirmed by the Federal Court of Appeal[3] and subsequently by the Supreme Court of Canada.[4] Second, in June 2012, the Canadian federal government made severe cuts to the Interim Federal Health Program (IHFP), which covers the costs of medication and hospital care for refugee claimants, resettled refugees, and certain persons detained under the Immigration and Refugee Protection Act. These two events created a difficult situation for foreign nationals (FN) requiring medical treatment, such as non-Canadian citizens and non-permanent residents, including undocumented immigrants, visitors to Canada and temporary workers.[5]

In Canada, when a person presents at a hospital with a condition endangering his or her life, there is a legal and ethical obligation to provide treatment, regardless of the person's residency or immigration status.[6 7] Therefore, a FN with end-stage renal disease (ERSD) requiring haemodialysis would have access to this treatment. The situation is not the same for kidney transplantation, which is not considered an emergency treatment. Indeed, there are currently no Canadian guidelines regarding the provision of kidney transplant services to FNs.[7] Transplant centres are thus left on their own to deal with this thorny issue. In this article, we focus on kidney transplantation which is different in important ways from non-renal transplantation. The kidney is not, strictly speaking, a life-saving organ, since dialysis can allow patients to survive. There is also no emergency kidney transplantation, as would be the case with liver or heart transplantation. Yet, while kidney transplantation is clearly less dramatic than the transplantation of other life-saving organs, it still poses important challenges for clinicians.

With the June 2012 cuts to the IFHP program, refugees claimants who are not from a list of countries designated by the Canadian government (eg, countries in Western Europe and the USA) are entitled only to urgent healthcare coverage in situations that are life threatening, or where healthcare services are essential.[5] It is unclear whether kidney transplantation would be considered of an essential nature and thus reimbursed, and the cost of medication is reimbursed only for the treatment of diseases that present risks for public health or safety.[5] The immunosuppressive drugs necessary for the transplant success would thus not qualify. Refugee claimants from a designated country, and rejected refugees, will only receive healthcare services if they have a condition that constitutes a threat to public health or safety.[5] That said, on compassionate grounds, nephrology teams would likely not deny access to dialysis to FNs and refugees claimants, regardless of their status.

The continued provision of kidney transplantation to refugee claimants and other FNs has thus become problematic. This situation led us to question whether transplant teams should provide services to FNs. While the situation described here is specific to the Canadian context, the issue of whether and on what grounds a country should provide transplant services to FNs is a concern for most developed nations. In this paper, we will review different national policies regarding kidney transplantation of FNs, and then examine the

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Table 1 International policies on waitlisting and transplantation for foreign nationals (FN)

Country	Policies on waitlisting FNs	Number of FNs waitlisted and transplanted
Eurotransplant member countries*[8]	No listing of FNs for a kidney or pancreas. FNs can be waitlisted only for non-renal (heart, liver, lung) transplant, and they cannot exceed 5% of the patients transplanted in the previous year.	In theory, it is impossible for FNs to receive a kidney transplant.
UK[10]	FNs can receive a transplant only if the organ is not allocated to a UK resident.	5 kidney transplants on FN between 1998 and 2008[14]
USA[12]	Transplant centres that place non-US citizens or non-US residents on their waiting list must report to the OPTN. Review of citizenship data by an adhoc international relations committee and publication of a report.	In 2005, 0.9% of patients listed for a deceased kidney transplantation were non-resident aliens. Between 1988 and 2005, 0.7% of all renal transplants were performed on non-resident aliens.[15]
France[13]	Decisions to list a FN are made by the medical team. Mandatory conditions: ▶ Provide proof from the ministry of health in the FN's country of origin that transplantation is not available; ▶ Patient should not be on waiting lists in other countries; ▶ Patient should be able to afford the transplant procedure. If all these conditions are met, the hospital and medical team can decide to list the patient and must forward the information to the Agence de la biomédecine. No specific allocation rules for FN.	Waiting list: ▶ Between 1996 and 2003: 9.1% were FN[16] ▶ Between 2004 and 2008: 15.3% were FN[13] Number of transplantations: ▶ Between 1996 and 2003: 7.5% of KT were on FN[16]
Canada	No policy	Unknown

*Eurotransplant is the organisation responsible for deceased organ allocation in Austria, Germany, Belgium, Croatia, Luxembourg, the Netherlands and Slovenia.
OPTN, organ procurement transplant network.

arguments for and against the provision of such services, in order to reflect on the different options possible for transplant centres and policymakers.

POLICIES ON TRANSPLANTATION FOR FOREIGN NATIONALS

Worldwide, policies regarding the provision of transplantation services to FNs vary (see table 1). The Eurotransplant policy states that kidney transplantation is not possible for FNs. For other organs, FNs cannot exceed 5% of patients on the waiting list.[8] Nonetheless, in The Netherlands, one of the Eurotransplant member countries, FNs can be listed for a deceased kidney transplant.[9] In the UK, a report commissioned by the secretary of state in 2009 recommended that only Group 1 patients (eg, UK residents, members of the armed forces serving abroad, Crown servants serving abroad, and persons entitled to medical treatment in the UK through reciprocal agreements) be entitled to receive an organ from a deceased donor. Group 2 patients, which include FNs, are not entitled to funded medical care. They can, nonetheless, have access to deceased donor organs but only if these are not of sufficient quality for Group 1 patients, and the FNs must pay for the procedure. However, in the past, some UK transplant centres have apparently considered providing kidney transplants for asylum seekers who required dialysis.[10]

In the USA until recently, the Organ Procurement Transplant Network (OPTN) audited transplant centres that had registered more than 5% of FNs on their waiting list.[11] In 2012, the OPTN modified its policy and now requires direct reporting by transplant centres that waitlist non-residents or non-citizens. The rationale behind this modification is greater transparency and better documentation of how many people travel to the USA for transplantation.[12] In France, FNs can be put on transplant waiting lists if they meet certain conditions, that is, there is no possibility of organ transplantation in the country of origin; the patient is not on another country's waiting list; and the patient can afford to pay for the procedure and medication.[13] The number of FNs put on the waiting list in France increased from 9.1% (between 1996 and 2003) to 15.3% (between 2004 and 2008).[13] As mentioned earlier, in Canada, there is no specific national policy on the transplantation of FNs; transplant centres are left to decide how to address this issue.

ARGUMENTS REGARDING TRANSPLANTATIONS FOR FOREIGN NATIONALS

In this section, we examine more closely the different arguments advanced in the debate on transplantations for FN, many of which are implicit in the policies presented in the previous section (see table 2).

The organ shortage and citizenship

The most common argument against transplantations for FNs is the organ shortage; that is, an organ is no longer available for a citizen on the wait list. Citizenship confers special rights, such as the right to vote and access to certain collective resources.[17] By extension, and particularly when there is insufficient supply to meet demand, it can be argued that citizens or residents should be prioritised or even treated exclusively for transplantation.[18] [i] However, this nation-based concept of citizenship is increasingly being challenged by the global nature of cross-border movement of persons (ie, migrant workers, refugees), which while sometimes a cost can also contribute to local economies and, potentially, also to access to organs (see the following sections on the Free-rider problem and Economic concerns).

One way to address this situation would be to allow FNs to only be transplanted with an organ from a living donor so that a deceased kidney would not be removed from the pool. In the case where the living organ donor is incompatible with the recipient, the incompatible pair could be invited to participate in a paired-exchange programme.[19] However, the healthcare system would still have to agree to pay for the living organ donor's assessment and donation, as well as for the transplantation. A recent study conducted in haemodialysis units in

[i]Citizenship is a concept with multiple definitions. While some of these may have implications for organ donation policies, a detailed discussion of these is beyond the scope of this paper.

Table 2 Arguments regarding transplantation for foreign nationals (FN)

Argument	Reasons against transplantation	Reasons for transplantation
Organ shortage and citizenship	Not enough organs for citizens and residents, so prioritise these groups over FNs.	
The free-rider problem	FNs are free riders since they do not contribute economically to society.	If FNs contribute to the donor pool, they are not free riders. FNs contribute economically to society (eg, through sales taxes).
Transplant destination	Transplantation of FNs will make the country a favoured destination and so will increase the organ shortage.	FNs do not appear to move in order to obtain access to renal replacement therapy.
Impact on organ donation rates	Transplantation of FNs will have a negative impact on public opinion and organ donation rates.	FNs' donation could increase the pool of available organs and encourage others to donate.
Physicians' duties	Physicians should not inflict harm on their patients.	Physicians should promote their patients' health and well-being without discrimination.
Economic argument	Transplantation is costly and should be reserved for residents who contribute to the economy.	Transplantation for FNs is less costly for society than haemodialysis.
Vulnerability	FNs may be vulnerable, but they are still not the responsibility of host countries.	FNs are a vulnerable group: ▶ May have fled terrible conditions; ▶ Underuse healthcare services; ▶ Consult late for medical conditions. Children are a vulnerable group: ▶ Negative impact of haemodialysis on growth and intellectual development; ▶ Children are not responsible for their immigration status; ▶ FN children could become legal residents in the future.

New York found that 60% of undocumented residents had one potential living organ donor.[20] So it is reasonable to assume that in Canada, FNs might also have living donors, and thus not pose as great a risk to the organ supply as one might assume. However, if FNs' living organ donors are returned to their country of origin, they might not have access to medical follow-up. Additionally, they would not be able to fully enjoy one of the key benefits of living kidney transplantation—that of seeing their loved one no longer dependent on dialysis, and living in better health.

The free-rider problem

It could be argued that FNs receiving organ transplants are free riders, since they benefit from a service (transplantation) and a resource (organs) without having contributed to the donor pool.[21 22] While there are no Canadian data on the number of FNs who have donated their organs, in the USA in 2010, 96 transplants were performed using organs from deceased FN donors.[12] During the period spent in Canada, FNs could be called upon to donate a kidney to a family member, or even die and become deceased organ donors. In either case, if FNs are contributing to the organ pool, should they not, in all fairness, be eligible for transplantation should the need arise? One might also question why FNs as a group would need to contribute to the organ pool to have access to transplantation when this is not a requirement for Canadian citizens or residents.

A related argument against transplantation for FNs is that they do not contribute economically to the host country. Given that residents or citizens are taxpayers, and that public health is the responsibility of the State, it can be argued that in a context of limited resources, residents or citizens should receive priority care or even benefit exclusively from this service. But again to be fair, it must be recognised that some FNs do not have the right to work while their immigration status is pending, and are thus denied the chance to contribute to the national economy. It should also be noted that there are other FNs, such as seasonal migrant workers, who are essential to the agricultural and service sectors in many countries, including Canada.[23] The Canadian state might thus be described as a free rider, since it benefits from the labour of these temporary workers but refuses to provide them with organs should the need arise. Further, even though FNs do not pay income taxes, they do contribute indirectly to the economy through sale taxes or by working under the table. In the same vein, many Canadian citizens or residents who are organ recipients are unemployed, and thus, pay minimal or no income taxes. It is thus arbitrary and unfair to base eligibility for transplantation solely on financial participation or productivity.[24]

The risk of becoming a transplant or post-transplant destination

If Canada and other nations are viewed as being overly generous regarding the transplantation of FNs, they risk becoming a favoured destination for patients who do not have access to this or other healthcare services in their home country, a situation that could aggravate the current organ shortage. But is this fear justified? In the USA, where transplant centres are permitted to list FNs for deceased organ transplants, only 0.9% of patients on the kidney waiting list in 2005 were FNs.[15] Another US study of undocumented residents requiring haemodialysis showed that these patients had spent more than 35% of their life in the USA before receiving haemodialysis treatment, and only 3% were aware of their renal condition prior to moving to the USA.[25] The study authors concluded that their data contradict the widely held opinion that people are moving to the USA to receive dialysis treatment.[25] An Israeli study showed similar results.[26] There are no Canadian data on this issue, and the situation might be different from that in the USA, of Canada's universal health insurance; for example, in France, where there is also universal health insurance, the proportion of FN patients waitlisted for an organ transplant increased between 1996 and 2008.[13 16]

If Canada refuses transplantation for FNs, there is a risk that these patients would travel to their country of origin to buy an organ and return to Canada for post-transplant care. This would aggravate the problem of transplant tourism and run counter to the Declaration of Istanbul on Organ Trafficking and Transplant Tourism.[27] But would such situations actually occur?

First, FNs' countries of origin do not necessarily have transplantation facilities. Second, FNs who are refugee claimants may have fled their home countries for several reasons (eg, war, persecution, poverty) and are probably not interested in returning, even for a transplant. Third, some studies have shown that transplant tourists tend to be ethnic minorities in developed countries who travel frequently to their countries of origin; two Canadian studies showed that transplant tourists from Canada were either Canadian citizens or residents, but not FNs.[28 29] Finally, countries could permit transplantation for FNs, but impose a quota, and so, not give the impression of being a favourable destination.

Impact on organ donation rates

Transplantation for FNs could have a negative impact on public opinion and organ donation rates. While there is scant empirical data on this issue, one survey showed that 38% of American respondents would be less willing to donate their organs if FNs were allowed to travel to the USA for transplantation,[11] although this survey did not include FNs who live in the country. Further studies are thus needed to better evaluate the impact of public opinion on organ donation rates. Public opinion is obviously not the only measure of what is ethically acceptable in a society, but in democratic states, it is important to take this opinion into account and to be transparent in the reasoning behind particular policies. It might also be possible to mitigate negative public opinion by presenting clear data and arguments about the actual demand by FNs for organ transplantation (ie, that it is relatively low in developed countries), and the associated costs and benefits to the economy of treating or not treating patients in need (ie, untreated patients, whether or not they are FN, are costly to the healthcare system and the economy).

Physicians' duties

One of the primary duties of physicians is to consider, promote and protect the health and well-being of their patients. Inscribed in Canadian codes of ethics is a requirement for physicians to treat their patients without discrimination.[30 31] Accordingly, it can be argued that a physician facing a dialysis patient has a professional and even a legal obligation (especially in Quebec, where the Physician Code of Ethics is part of the Civil Code) to consider listing the patient for a kidney transplant, regardless of their citizenship, since transplantation offers the best medical outcome. Physicians should not discriminate based on the immigration status of their patient, nor should they be responsible for issues of insurance; they should focus on providing the best possible standard of care.[30]

Nonetheless, transplant physicians might be torn between their duty to provide care without discrimination and to not inflict harm on the patient. In the case of FN patients, transplant physicians should be concerned about their patient's access to the immunosuppressive drugs necessary for graft survival, whether in Canada or in the country of origin.[32] If transplant-receiving FNs are sent back to their country of origin where immunosuppressive drugs or post-transplant follow-up care are unavailable, Canadian transplant physicians will be unable to fulfil their duty to provide continuity of care; transplantation without follow-up care could thus be considered more harmful than not transplanting at all. Physicians are thus in a 'catch-22' situation where either response has them violating their professional duties to do good and to do no harm. Immigration authorities should thus consider such cases on compassionate grounds before sending patients back to their country of origin.

Economic concerns

As already mentioned with regards to the free-rider problem, it can be argued that transplantation for FNs is costly to the economy since FNs receive a service but do not pay taxes, and so should have limited access to costly services. But, it is also possible to mount a strong economic argument in favour of providing transplant services to FNs who require haemodialysis, because at between $C66 000 and $C89 000 per patient per year, haemodialysis is far more expensive than transplantation, which costs around $C27 000 per year after the first year.[33] This is an important argument in the Canadian setting, since currently no FN patients are denied vital haemodialysis treatment; transplantation for a FN can thus be a more cost-effective option in the medium to long term.

The vulnerability of FNs

FN patients can be viewed as a particularly vulnerable group. Some have escaped terrible conditions and have left behind family and friends. Once in the new country, they face multiple barriers in accessing healthcare services (eg, language, lack of knowledge about how the healthcare system works, and about their rights or the resources available to them), may be isolated and without social support, and be stressed about their immigration status.[34] This situation can lead FNs to consult late, not receive optimal medical management and thus be in worse health.[26] Nonetheless, this vulnerability may be considered insufficient grounds to justify particular attention or care from a host country.

FN children are a particularly vulnerable subgroup, because renal failure has an impact on the intellectual development and growth[35] and is one of the reasons most kidney allocation policies give children priority access.[36] Goldberg and colleagues argue in favour of allowing transplantation for FN children in the USA, drawing a parallel with education, where undocumented resident children are not denied access to education. As with access to education, kidney transplantation would help give FN children equal opportunities for their future.[37] It should also be kept in mind that these children are not responsible for their immigration status and will probably become legal residents or citizens in the future, contributing to the social and economic well-being of the country.

It is our view that democratic countries, such as Canada, that promote human rights and freedoms[38]—including the protection of those who are the most vulnerable—should show a greater degree of responsibility towards meeting the health needs of FNs, including those in need of transplantation.[39]

POSSIBLE OPTIONS

It is important to keep in mind that in Canada, deceased organs are allocated by independent provincial organisations; our analysis presupposes such an infrastructure to ensure the fair and equitable allocation of organs.[ii] After examining the various arguments for and against the provision of transplantation services to FN, we are left with four policy options.

[ii]It is beyond the scope of this article to consider whether the issue of ownership of deceased bodies or tissue could have an impact on how, in practise, deceased organs can or should be allocated (eg, government control or a commercial organ market).

The *first option* is to refuse to transplant FNs due to: the organ shortage; that Canadian citizenship or residency should be a requirement for transplantation; and that physicians could harm transplanted FN patients since they cannot ensure follow-up care and access to immunosuppressive drugs necessary for graft survival. Such an approach would, however, run counter to fundamental human rights, such as those enshrined in the Canadian Charter of Rights and Freedoms, which call for every person to have access to necessary healthcare services to ensure their health and well-being.[38] This solution could also be costly for society if FNs are subsequently put on haemodialysis, since this treatment is more expensive in the long run than transplantation.

A *second option* would be to allocate to FNs those organs that are not suitable for citizens and residents. This would be equivalent to treating FNs as second-class patients and could be considered an unjustified form of discrimination according to the Canadian Charter of Rights and Freedoms.[38] Moreover, it is not clear whether such an approach would work in practise, because in the current context of organ shortages, the criteria for deceased organs have been broadened (eg, procurement of kidneys after cardiac death); there may thus be fewer 'unwanted' organs in the pool than imagined.

A *third option* might be to consider transplantation for FNs only from living organ donors, so as not to remove organs from the deceased donor pool. Yet, if we consider living organ donor transplants for FNs, we have to ensure that the cost of donor assessment, surgery and follow-up for the recipient and donor will be reimbursed, otherwise a limited resource will be wasted and physicians will be unable to fulfil their professional duties of care (which include follow-up care).

The *fourth option*, which appears to us to be the most ethical and practical—that is, one that allows for fair allocation, supports professional duties but is not unduly demanding on the resources of the State—would be to have a transparent national policy that waitlists FNs for deceased and living kidney transplantation, when there is a suitable living donor. Medical follow-up and necessary immunosuppressive drugs should be reimbursed so as not to jeopardise the graft's (and the patient's) survival. If there are no means to provide the medication or post-transplant care, this would make the provision of transplant services to FNs inappropriate, and even unethical. A national organisation should track and review all FN transplants. This would enable the establishment of a reasonable quota policy, one that sends the clear message that the country is not a transplant destination, and also makes transplantation for FNs more acceptable to the general public who pay taxes and are also potential donors. We acknowledge that a quota policy could prevent some FNs from receiving transplantation, and so run counter to the view that every person has a right to necessary healthcare. Immigration authorities and transplant teams should collaborate in order to ensure that FN patients are not sent back to their country of origin if the graft survival and, thus, the patient's life are at risk. This solution would be less costly for Canada than providing haemodialysis treatment to these patients. It would also be compatible with a view of entitlements as not strictly related to citizenship, but rather to human rights and the human condition. Moreover, since FN patients are particularly vulnerable, wealthy democratic societies arguably have a responsibility towards this group.

CONCLUSION

The debate about whether to permit FNs to access kidney transplantation services raises serious questions for physicians who have to find ways to reconcile conflicting obligations and responsibilities. On the one hand, clinicians must respect the law and practice within a context of resource constraints; on the other hand, they have a professional duty of care, and must offer the best medical treatment possible to patients in need. As such, clinicians must look beyond the direct clinical encounter with their patients in order to consider the social and political setting in which this encounter occurs. Transplantation for FNs is clearly a thorny question and cannot be the responsibility of clinicians alone. It should be part of a broader reflection and public dialogue about the medical obligations of clinicians—and the broader responsibility of the State—towards visitors, particularly those who lack the monetary resources to pay for healthcare services. It also raises questions about whether national borders should dictate who is entitled to healthcare. The public dimension of this debate is crucial if we are to ensure that the resulting policy decisions do not have a negative impact on deceased or living organ donation. Given the complexity of the elements involved in deciding on an appropriate and ethical national policy regarding transplantation for FNs, it is essential that further studies be conducted to document the magnitude of the phenomenon, identify various stakeholders' perspectives, and analyse the interrelated legal, political, economic and ethical considerations.

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Should we perform kidney transplants on foreign nationals?

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