

ORIGINAL ARTICLE

Access of non-residents to transplantation of deceased donor organs: practices and strategies in the European setting

Alicia Pérez-Blanco¹, Marta López-Fraga², John Forsythe³, Ana M. Pires Silva⁴, Massimo Cardillo⁵, Petra Novotná⁶, Stefan G. Tullius⁷, Emanuele Cozzi⁸, Tamar Ashkenazi⁹, Francis L. Delmonico¹⁰, Beatriz Domínguez-Gil¹¹, on behalf of the Council of Europe European Committee on Organ Transplantation (CD-P-TO)

1 Organización Nacional de Trasplantes (ONT), Madrid, Spain

2 European Directorate for the Quality of Medicines & HealthCare (EDQM), Council of Europe, Strasbourg, France

3 NHS Blood and Transplant (NHSBT), Bristol, UK

4 Instituto Português de Sangue e da Transplantação (IPST), Lisbon, Portugal

5 Centro Nazionale Trapianti-Istituto Superiore di Sanità (CNT-ISS), Rome, Italy

6 Koordinační středisko transplantací (KST), Prague, Czech Republic

7 Division of Transplant Surgery, Harvard Medical School, Brigham and Women's Hospital, Boston, MA, USA

8 Padua University Hospital, Padua, Italy

9 Israel Transplant Center, Tel-Aviv, Israel

10 New England Donor Services, Waltham, MA, USA

11 Organización Nacional de Trasplantes (ONT), Madrid, Spain

SUMMARY

The access of non-resident patients to the deceased donor waiting list (DDWL) poses different challenges. The European Committee on Organ Transplantation of the Council of Europe (CD-P-TO) has studied this phenomenon in the European setting. A questionnaire was circulated among the Council of Europe member states to inquire about the criteria applied for non-residents to access their DDWL. Information was compiled from 28 countries. Less than 1% of recipients of deceased donor organs were non-residents. Two countries never allow non-residents to access the DDWL, four allow access without restrictions and 22 only under specific conditions. Of those, most give access to non-resident patients already in their jurisdictions who are in a situation of vulnerability (urgent life-threatening conditions). In addition, patients may be given access: (i) after assessment by a specific committee (four countries); (ii) within the framework of official cooperation agreements (15 countries); and (iii) after patients have officially lived in the country for a minimum length of time (eight countries). The ethical and legal implications of these policies are discussed. Countries should collect accurate information about residency status of waitlisted patients. Transparent criteria for the access of non-residents to DDWL should be clearly defined at national level.

Correspondence

Alicia Pérez-Blanco MD, PhD,
Organización Nacional de Trasplantes,
C/Sinesio Delgado 6, pabellón 3,
28029 Madrid, Spain.
Tel.: +34 91 822 49 30;
fax: +34 91 314 29 56;
e-mail: aperezb@sanidad.gob.es

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Introduction

The number of transplants performed worldwide (almost 147 000 in 2018) continues to be far from meeting present and foreseeable global needs [1]. As a result, thousands of patients die or endure a poor quality of life [2].

The World Health Organization (WHO) has called on countries to pursue self-sufficiency in transplantation, that

is striving to meet the transplant needs of the resident population by using the country's own resources (i.e. organs and infrastructures) or by equitably sharing resources with other countries or jurisdictions through international agreements [3]. Strategies to pursue self-sufficiency include prevention of end-stage organ failure and maximizing donation from deceased donors. In addition, some countries are engaging in international cooperation agreements, based on the

principles of reciprocity and/or solidarity, to satisfy the transplantation needs of their patients. Despite notable efforts made in recent years, there is currently no country that can be considered self-sufficient in transplantation. Moreover, because of the increasing therapeutic indications for transplantation, there is little hope that this goal will be achieved by most countries, including those with well-developed transplant systems [4].

Access to transplantation is unequal across countries. The number of patients receiving a transplant ranges from 0 to more than 100 per million inhabitants. Currently, only 84 countries in the world report kidney transplant activity to the WHO Global Observatory on Donation and Transplantation. The number of countries that report on extra-renal transplants is much lower (70 for liver, 57 for heart and 46 for lung transplants) [1].

Under such circumstances, patients in need with no or limited access to transplantation in their home countries may resort to travel to other countries with better access to transplantation from deceased organ donors, even in the absence of international cooperation agreements [5].

The Declaration of Istanbul (DoI) [6] considers that ‘travel for transplantation becomes transplant tourism, and thus unethical, when it involves trafficking in persons for the purpose of organ removal or trafficking in human organs, or when the resources (organs, professionals and transplant centres) devoted to providing transplants to non-resident patients undermine the country’s ability to provide transplant services for its own population’. It is considered that when individual patients travel solely to access the deceased donor waiting list (DDWL) in another country, they are undermining the destination countries’ ability to provide transplant services to their own residents, as no country has organs to spare [4].

Transplant tourists may act under their own initiative or with the support of third parties, such as non-governmental organizations, patient associations, health-care professionals or even brokers specialized in supplying such services. These third parties may act out of compassion or ignorance of the consequences of their actions, but some may seek to obtain financial gain or comparable advantage in exchange for their services [7].

To travel outside of one’s country of residence for the principal purpose of obtaining an organ for transplantation may raise challenges both in the destination country and in the country of origin. From the perspective of the former, compromising organ availability potentially denies a cure or survival, to those in the community that respond to calls for deceased donation

or registration for this act of altruism. Additionally, some of the non-residents that manage to travel for transplantation are those able to overcome the existing legal, administrative and financial barriers to undergo organ transplantation in another jurisdiction. It is likely that such individuals will have higher socioeconomic status and education, not to mention the financial means. Indeed, social injustice becomes even more evident when transplant services for non-residents are primarily provided by the private sector to those who have the financial resources [7]. From the latter, or countries of origin, access of their residents to transplantation in other destinations may deter their governments from making progress towards self-sufficiency by developing or improving their donation and transplantation programmes [8].

Once they receive the transplant, patients will need long-term immunosuppression and specialized follow-up care that may not be guaranteed once they return to their home country, potentially resulting in transplant failure [9]. Finally, the absence of an appropriate transfer of care by physicians in both destination and home countries may result in the loss of traceability and biovigilance – creating a public health risk for the transmission of diseases [10–12].

As a response, some note that non-residents, who are already present in a certain jurisdiction for bona fide reasons, may suffer a sudden life-threatening clinical condition for which there is no alternative therapeutic option to transplantation. Surely, a basic humanitarian argument says that they should not be denied this option. Refugees, asylum seekers and minors who have no access to transplant care in their home country may also be considered for transplantation in a foreign country out of solidarity and compassion. In any instance, states need to find the right balance between their wish to provide compassionate health care to non-resident patients and, their obligation to cover the transplantation needs of the resident patient population, including the prevention of the negative consequences of transplant tourism.

The Council of Europe Committee on Organ Transplantation (CD-P-TO) is the steering committee in charge of organ, tissue and cell donation and transplantation activities at the European Directorate for the Quality of Medicines and HealthCare (EDQM) of the Council of Europe. It actively promotes the non-commercialization of organ, tissue and cell donation, the fight against organ trafficking and the development of ethical, quality and safety standards in the field of organ, tissue and cell transplantation. CD-P-TO’s activities include the collection of international data and

monitoring of practices in Europe, the transfer of knowledge and expertise between organizations and experts through training and networking and the elaboration of reports, surveys and recommendations. It is important to note that the Council of Europe countries spread well beyond those covered in the European Union.

At the present time, access of non-residents to transplantation with deceased donor organs remains a largely unexplored topic in the Pan-European setting. We performed this study to test the dimensions of this phenomenon and to learn the different strategies used by member states to address the subject.

Methods

As of August 2020, the CD-P-TO is composed of 36 members (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Montenegro, the Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Republic of Moldova, Turkey, Ukraine and the United Kingdom) and 21 observers (Armenia, Belarus, Canada, Georgia, Holy See, Israel, Russian Federation, the United States, Council of Europe Committee on Bioethics, DTI Foundation, European Association of Tissue and Cell Banks, European Eye Bank Association, European Society for Human Reproduction and Embryology, European Society for Organ Transplantation, European Commission, Eurotransplant, South-Europe Alliance for Transplants, ScandiTransplant, the Transplantation Society, WHO and World Marrow Donor Association).

In 2018, a new project was launched to study the requirements in each member state to regulate the access of resident and non-resident patients to the DDWL for organ transplantation. For this purpose, a questionnaire was designed and validated by a working group that included CD-P-TO representatives from the Czech Republic, France, Italy, the United Kingdom and the Transplantation Society, under the leadership of Spain. Once finalized, the document was approved by the CD-P-TO in its full composition.

The questionnaire inquired about the criteria applied for resident and non-resident patients to access the DDWL and activity data pertaining to 2017. The questionnaire consisted of three sections: (i) access of residents to the DDWL, (ii) access of non-residents to the DDWL and (iii) regulatory framework regarding access of patients to the DDWL based on residency status (see Supplementary Material).

For the purpose of this study, the authors convene to define a 'resident' as any person who resides in their country of birth or who resides lawfully in a country (defined variously in different countries but including citizenship or full eligibility for citizenship, resident permit, visa to remain or other). A 'non-resident' refers to any person who travels to or resides in a country with no rights of residency, as defined above. The term 'regulation' applies to officially written rules included in the legal framework of a country, enacted with the aim of controlling how a particular aspect of the transplantation or donation process must be done.

The questionnaire in electronic format was sent, in November 2018, to all CD-P-TO delegations who collected the information from official sources, either the relevant national health authority(ies) or their delegated agency(ies) in the field of transplantation. The survey was conducted by paper-pencil. All responses were returned to the Spanish Organización Nacional de Trasplantes (ONT) for subsequent data quality control and descriptive analysis. The results of this data collection exercise were presented and discussed during the March and October 2019 CD-P-TO plenary meetings with a view to understanding practices and the ethical implications of the different national approaches. This paper summarizes the data provided by the respondents and the deliberations of the CD-P-TO on the subject.

Results

The questionnaire was completed by 28 countries out of the 36 member states and 8 observer countries that received it. Three countries (Armenia, Georgia and Holy See) were excluded from the analysis as they do not have a deceased donor programme. Thus, the overall response rate was 68%.

Out of 27 452 patients who received an organ transplant from a deceased donor in 2017 in the 22 member states providing this data, 189 (0.7%) were non-resident patients. These 189 transplants were undertaken in 11 countries, most frequently in Austria, France, Italy and the United Kingdom (Fig. 1).

All responses to regulatory aspects related to the acceptance of non-resident patients onto a DDWL are summarized in Table 1a,b. In two countries (Bosnia and Herzegovina and Republic of Moldova), non-residents are never allowed to access the DDWL. Four countries (Germany, Lithuania, Malta and the Netherlands) allow non-residents to access the DDWL without any restrictions, with the same criteria that apply to resident patients. The remaining 22 countries have defined

conditions for non-residents to access their DDWL. Of those, most consider providing compassionate health care to non-resident patients who are already present in their jurisdictions when they are in a situation of special clinical or social vulnerability. These include patients suffering from an urgent life-threatening clinical condition of organ failure with no therapeutic option other than transplantation, who are given access to the DDWL in 16 countries. If already present in the country, minors in need of a transplant are accepted on the DDWL in five countries, with specific conditions in Israel (minors born in the country whose parents are refugees or legal workers in Israel). Refugees can access the DDWL in eight of the surveyed countries.

Some others, such as Belgium, Croatia, Italy and France, may accept non-resident patients on their DDWL following the assessment of each case by a specific committee and under certain conditions. In the case of Italy and France, these criteria include the referral of the patient by a national authority, unavailability of such transplant procedures in the home country, proof of financial coverage, certification that the patient is not waitlisted in another country, and evidence that the patient will receive appropriate follow-up care upon their return home.

Fifteen member states deem appropriate and accept that patients travel for transplantation within the framework of official cooperation agreements. Some countries in Europe have not developed certain transplant programmes for legitimate reasons (e.g. size of the donor pool and number of indications not permitting enough cumulative expertise). To facilitate the access of resident patients to these procedures, their national authorities

have signed official cooperation agreements with other European countries that provide transplants, while committing to contribute to their transplantation programmes with organs from their donor population. Other cooperation agreements have been established between countries by which resident patients are listed in a given destination while their country of origin is committed to the development of a deceased donor programme. For example, until Portugal was able to develop a lung transplant programme, Portuguese patients were listed in Spain while Portugal offered lungs from their deceased donor pool to patients listed in Spain. Similarly, an official agreement has been signed between Switzerland and Liechtenstein, by which residents in Liechtenstein receive transplants following the same criteria that apply to residents in Switzerland. Another example is that of countries belonging to Eurotransplant (Austria, Belgium, Croatia, Germany, Hungary, Luxembourg, the Netherlands and Slovenia) and to Scandiatransplant (Denmark, Estonia, Finland, Iceland, Norway and Sweden), which have established official agreements for organ sharing and for the movement of patients for transplantation across countries from the network (with the exception of Austria that requests a permit of residence of at least 12 months to Eurotransplant residents and EU citizens in order for them to be admitted on their DDWL for renal transplantation).

Eight European countries (Austria, Belgium, Cyprus, Estonia, Israel, Lithuania, Slovenia and Spain) allow non-resident patients to access their DDWL after they have officially lived in their jurisdiction for a minimum length of time, which ranges between 3 months and

Figure 1 Percentage of transplants from deceased donor organs in non-resident patients. Respondents are coloured in blue and non-respondents in grey. The box shows the number of non-resident patients/total transplants of deceased donor organs and percentage by country in 2017. AT, Austria; BE, Belgium; BG, Bulgaria; CH, Switzerland; CY, Cyprus; CZ, Czech Republic; DE, Germany; EE, Estonia; ES, Spain; FR, France; GB, United Kingdom; GR, Greece; HR, Croatia; IT, Italy; LT, Lithuania; MD, Moldova; MT, Malta; PL, Poland; PT, Portugal; SI, Slovenia; SK, Slovakia; TR, Turkey.

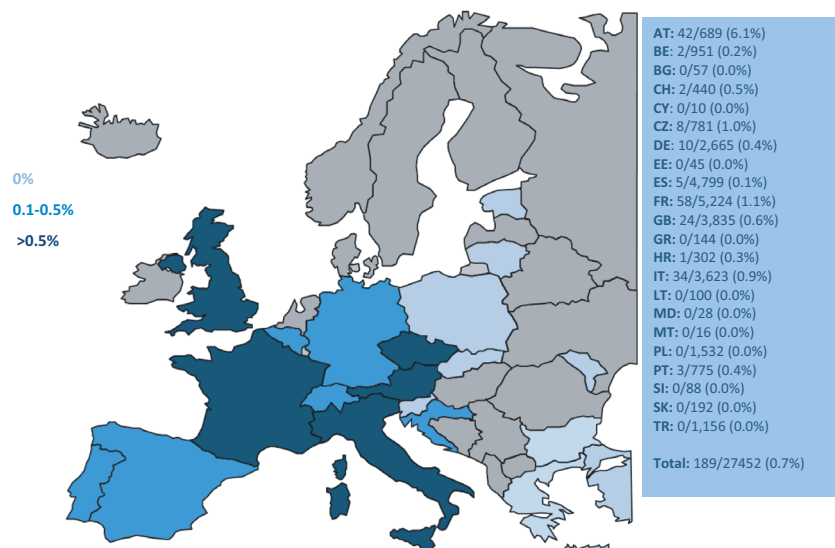


Table 1. (a) Conditions for access of non-resident patients to the deceased donor waiting list for transplantation in selected member states of the Council of Europe. (b) Disclosed country-specific restrictions for non-resident patient access to the deceased donor waiting list.

| | Access of non-residents to the DDWL | Minors | Patients suffering an urgent condition only treatable with transplantation | Refugees | Residents in countries with official agreements with the destination country | Persons having lived in the country for a minimum period of time |
|------------------------|-------------------------------------|--------|--|----------|--|--|
| (a) | | | | | | |
| AUSTRIA | Yes, with restrictions | | | | X | X (12 months) |
| BELGIUM | Yes, with restrictions | | X | | X | X (6 months) |
| BOSNIA AND HERZEGOVINA | No | | | | | |
| BULGARIA | Yes, with restrictions | | X | | X | |
| CROATIA | Yes, with restrictions | | X | | | |
| CYPRUS | Yes, with restrictions | | X | X | | X (6 months) |
| CZECH REPUBLIC | Yes, with restrictions | X | X | X | | X (5 years) |
| ESTONIA | Yes, with restrictions | | | | | |
| FINLAND | Yes, with restrictions | | X | | X | |
| FRANCE | Yes, with restrictions | | | | | |
| GERMANY | Yes, without restrictions | | | | | |
| GREECE | Yes, with restrictions | | X | | X | |
| HUNGARY | Yes, with restrictions | | X | X | | |
| ISRAEL | Yes, with restrictions | X | X | | | X (1–5 years) |
| ITALY | Yes, with restrictions | X | X | X | | |
| LITHUANIA | Yes, without restrictions | | | | X | X (6 months) |
| MALTA | Yes, without restrictions | | | | | |
| MOLDOVA | No | | | | | |
| POLAND | Yes, with restrictions | | | | | |
| PORTUGAL | Yes, with restrictions | X | X | X | X | |
| SLOVAKIA | Yes, with restrictions | | X | | X | |
| SLOVENIA | Yes, with restrictions | | X | X | X | X (6 months) |
| SPAIN | Yes, with restrictions | X | X | | X | X (3 months) |
| SWEDEN | Yes, with restrictions | | X | | X | |
| SWITZERLAND | Yes, with restrictions | | X | | X | |
| THE NETHERLANDS | Yes, without restrictions | | | X | | |
| TURKEY | Yes, with restrictions | | X | | | |
| UNITED KINGDOM | Yes, with restrictions | | X | | X | |
| TOTAL | | 5 | 16 | 8 | 15 | 8 |

Table 1. Continued.

| | | |
|----------------|--|---|
| (b) | | Non-resident minors can be admitted to the DDWL under official cooperation programmes. Patients from Eurotransplant countries would also need a minimum period of 12 months living in Austria before being given access to the DDWL for renal transplantation |
| AUSTRIA | | Emergencies are evaluated on a case-by-case basis and inclusion on the waiting list requires authorization from the government following consultation with the Belgian Organ Committee. Patients living in countries of the Eurotransplant region can access the DDWL. Patients living in Belgium for a minimum of 6 months can access the DDWL |
| BELGIUM | | Urgent cases only |
| BULGARIA | | Emergencies not specified in the legislation. These exceptional cases would require approval by the National Transplantation Council |
| CROATIA | | Cypriot citizens and EU citizens who are living in Cyprus for a minimum of 6 months can access the DDWL |
| CYPRUS | | Before enrolling a patient on the DDWL, a signed declaration that they are not listed on the DDWL of another country is required. Non-resident minors can be admitted to the DDWL under official cooperation agreement between Czech Republic and Slovakia. Only asylum seekers registered by the Ministry of the Interior of the Czech Republic – Department of Asylum and Migration Policy can be admitted to the DDWL |
| CZECH REPUBLIC | | Non-residents must provide a residence permit showing they have lived in the country for an extended period (60 months) or, for citizens of the EU, hold a permanent residence permit |
| ESTONIA | | Following Scandiatransplant agreements |
| FINLAND | | Non-residents must provide: (i) a certificate of financial support for the transplant; (ii) a certificate on their honour to be registered only on the French national waiting list; (iii) a certificate from the Ministry of Health of their country of origin certifying that the transplant is not possible in this country, and mentioning the reasons for this impossibility; and (iv) a visa for medical care from the French Consulate for non-residents whose entry into the French territory is subject to a visa |
| FRANCE | | Yes, with restrictions |
| GREECE | | Yes, with restrictions |
| HUNGARY | | Minors are only eligible if born in Israel and their parents are refugees or legal foreign workers. Emergencies consistent in fulminant hepatitis. Other conditions are assessed by an ad hoc committee that decides on access to the DDWL |
| ISRAEL | | Enrolment on regional waiting lists has to be authorized by regional authorities. Enrolment on the national waiting lists has to be authorised by the Centro Nazionale Trapianti (CNT) (urgent cases, paediatric and highly immunized patients). For all cases, the following documents are required: patient referral by a national competent authority, evidence of lack of proper transplant programme in country of origin, evidence of financial coverage (e.g. Health Care System of another country), evidence of follow-up care availability in the country of origin. Some regions and the Ministry of Health itself have devoted funds to cover expenses for humanitarian cases (refugees, paediatric cases/transplant patients from countries where some transplant programmes are not available) |
| ITALY | | Evidence from Poltransplant that the patient is not included on the DDWL in their country of origin, has been qualified for transplantation at a Polish transplant centre and insured in the Polish National Healthcare system (non-residents with an official working contract) |
| POLAND | | Legislation governing free access to transplantation (DDWL) by non-residents is the same as that governing access by non-residents to other healthcare. Residence is a mandatory requirement and access to the DDWL possible from the moment they obtain the National Health Service Card. Illegal or irregular immigrants who can prove that they have been living in Portugal for more than 90 days (through a statement issued by the official authority of their area of residence), can have free access to the National Health Service in certain situations, which include urgent healthcare (e.g. liver transplant) and healthcare of minors. Non-resident patients from countries with which there is a bilateral agreement with Portugal, and which do not have the technical and human capacity to perform the transplant procedure, may have access to the DDWL on equal terms. Citizens of Portuguese nationality have access to public healthcare, including DDWL, independently of whether they live in Portugal |
| PORTUGAL | | Enrolment on regional waiting lists has to be authorized by regional authorities and approved by National Transplant Organisation |
| SOLOVAKIA | | Specific legislation under development |
| SPAIN | | |

Table 1. Continued.

| | |
|----------------|--|
| SWEDEN | Patients who are residents of Sweden can be listed on the DDWL when their physician deems it necessary. The evaluation of what is most appropriate in each individual case is made by the responsible physician in accordance with regional policies |
| SWITZERLAND | Residents in EU or EFTA who are subject to mandatory health insurance in Switzerland |
| TURKEY | Non-residents with a primary graft failure after a live donation, with special permission of the Ministry of Health |
| UNITED KINGDOM | Members of the armed forces or British council employees who reside abroad |

(a and b) In light pink: Countries belonging to Eurotransplant have official agreements for organ sharing and for the movement of patients for transplantation across countries from the network. In dark pink: Countries belonging to ScandiTransplant have official agreements for organ sharing and for the movement of patients for transplantation across countries from the network.

several years. This approach does not represent a specific requirement for transplantation, but a general requirement for non-residents to be entitled to public healthcare coverage (including transplantation).

Discussion

Access of non-resident patients to the DDWL is a sensitive topic of debate. On the one hand, countries are compelled to provide transplants to non-resident based on compassion; on the other hand, transplant authorities have a duty to allocate scarce resources to their resident patients in a transparent, fair and equitable manner following the Recommendations of the Committee of Ministers of the CoE [13,14]. The discussions held by CD-P-TO representatives were focused on the political regulation of non-residents' access to DDWL taking into consideration key ethical principles: the fundamental right to life or a better quality of life; and the solidarity among human beings and international cooperation to this end.

European countries have set different policies to regulate this practice and other regions, such as the United States, have not adopted specific policies but do require transplant centres to record the citizenship residency status of patients undergoing transplantation [15,16].

While the number of non-resident patients who received an organ transplant in the responding countries was relatively low, the authors are aware of the limitations of this study and believe access of non-residents to DDWL should not be interpreted as an exceptional occurrence in Europe. The data on non-resident patients having had access to transplantation from a DDWL are incomplete and not fully reflective of the European reality, as several countries could not contribute to the survey. Moreover, several countries did not collect data about the residency status of the patients receiving transplants or could not guarantee the quality of such data, making it difficult to fully grasp the dimensions of the phenomenon and any untoward consequences for both the countries of origin and destination of the recipients. Some countries acknowledged that a number of patients who had received an organ transplant from the DDWL had acquired their resident status after just a short period living in the country which might suggest a calculated establishment of residency with the purpose of getting access to transplantation. It may also occur that some of these non-residents may have an intention to settle permanently in the destination country.

Legal and ethical considerations around access of non-resident patients to deceased donor waiting lists

Based on the collected data, the CD-P-TO held several meetings to discuss the rationale behind the different policies in place. Many European transplantation systems had agreed to provide transplantation treatment to certain non-resident patients when already present in their jurisdiction, including patients suffering from sudden life-threatening clinical conditions without alternative therapeutic options, minors who had no access to transplant care in their country of residence, refugees, asylum seekers and pregnant women. Such patients ought to be treated based on fundamental human rights. The European Court of Human Rights dictated in *D. vs UK* in 1997 that depriving a non-citizen of a needed treatment violated the right to life that was stated in Art.2 of the European Convention on Human Rights [17]. The Court equated the denial of treatment to torture (Art.3) when it would cause the death of the patient and established that the fundamental right to life was infringed by the UK in denying a non-citizen the possibility to receive adequate treatment by condemning him to return to his home state where such treatment did not exist. Likewise, any state or transplant system would infringe the fundamental right to life by denying a transplant to a non-resident while they prove that this option is not available in their home country and/or they are in a life-threatening situation.

However, the ethical duty to provide treatment based on the right to life has specific constraints in the case of transplantation. Hall argued that allowing harm by denying resources (in this instance, an organ) did not fall into the same moral category as committing or omitting standard actions. According to Hall, one's right to a resource relies on legal standards based on the principles of justice and policy, not on fundamental rights [18]. In this case, the transplantation authorities and governments are entitled to establish the legal framework that ensures proper distribution of the countries' resources and to allocate organs based on transparent and fair clinical criteria. As such, under general circumstances, they would not be morally obliged to provide scarce resources to non-residents. Along the same line, Sangiovanni argues that 'to provide the basic collective goods [the state has] special obligations [...] of justice to fellow citizens and residents, who together sustain the state, that [it does] not have with respect to noncitizens and non-residents' [19]. Thus, the duties of transplant authorities derive from the rights held by those who sustain the system (its resident population)

and include the obligation to maximize transplantation opportunities for them and to prevent transplant tourism, while the resident patient population has the right to claim that the transplant they need takes place in a timely manner.

Solutions applied in the European setting to regulate access of non-resident patients to the deceased donor waiting list

Some European countries have put in place control mechanisms, such as requiring a minimum length of time living in the country before being eligible for transplant therapy. This constitutes a running policy in Austria, Belgium, Cyprus, Estonia, Israel, Lithuania, Slovenia and Spain. The time could be set based on the mean or median time of residents on the DDWL. However, this approach may also benefit those patients who are able to afford the expenses of living in the destination country for a period of time with the ultimate goal of receiving a transplant.

A number of European countries have been shaping their regulations to provide compassionate transplantation to patients living in other jurisdictions who cannot get the transplant they need in their home country. Reported policies include the establishment of specific committees with the mission of assessing every non-resident request for an organ transplant. This policy enables healthcare systems to assess the real needs of candidates, ideally before they travel and become critically ill, and permits adequate planning of the procedure, follow-up of recipients and financial coverage of the transplant, as well as transnational traceability of organs. This could be considered as a fair option, at the individual level, for non-resident patients; however, it does not prevent the depletion of resources in the destination country.

Official cooperation agreements, like those established by Eurotransplant, Scandiatransplant, Spain and Portugal, or Switzerland and Liechtenstein, were deemed as the best solution for most respondents. These agreements are based on the concept of reciprocity, which relies on the equally valuable efforts of both systems, one by sharing their valuable resources, capacity and know-how, and the other by providing organs from their deceased donor pool (if they have a deceased donor programme) and/or by investing in building their own efficient transplant system (with the help and technical support of more experienced programmes). Considering the diversity of transplant systems in Europe, to pursue cooperative efforts, participating authorities

and stakeholders should be open-minded when it comes to reciprocity and take into account that restrictive formulas aiming at an exact exchange of benefits do not fit with the real-world setting in which the European transplantation systems operate. This is underpinned by Becker's enlarged conception of reciprocity, which advocates for making a return that is proportional to the sacrifice made by the givers rather than proportional to the benefits received [20].

Ultimately, official cooperation agreements have the advantage that both the burdens and benefits are shared between the countries involved, based on the predefined interests of all parties. Agreements constitute an umbrella to pursue safety and best practices in transplantation, as patients have a planned evaluation and referral, guaranteed financial coverage, transfer of care and post-transplant follow-up. The cooperation under these agreements of healthcare professionals permits them to work in confidence that their ethical codes of practice will be respected. Traceability of organs and biovigilance, should any adverse event be identified, can also be ensured in this context. Finally, destination countries ensure that the entrance of non-resident patients for transplantation is legitimate and may plan their resources based on the known number of non-residents included in such cooperation agree. However, at present time, official cooperation agreements have only been established between a reduced number of countries, based on historical, geographical and/or cultural connections. Larger scale settlements, for example at Pan-European level are difficult to attain, as they would pose a number of administrative and logistical burdens and could risk overburdening certain countries with well-established organ donation and transplantation programmes. Indeed, access to and the allocation of organs for the purpose of transplantation was explicitly left out of scope of Directive 2011/24/ EU of the European Parliament and the Council of Europe on the application of patients' rights in cross-border health care [21].

Conclusions

Access of non-residents to DDWL, as long as being a type of transplant tourism, is a common concern for transplant authorities across the globe. The dimensions of the phenomenon, and its impact on national waiting times for transplantation, cannot be precisely measured because of the absence of accurate data. Thus, it seems imperative that countries start collecting this information through existing national transplant registries, as

recommended by the Council of Europe and the Declaration of Istanbul [11,12].

Transplant authorities and governments are challenged by the need to provide adequate and humanitarian solutions to non-resident patients, while assuring the best possible transplantation services to their resident population. Each country, considering its own circumstances, should define transparent criteria for non-resident patients to be given access to transplantation from a DDWL. This decision should not be left to individual physicians or institutions but be defined by national policies.

While the original intention of the CD-P-TO when undertaking this project was to study and benchmark practices to produce recommendations regarding policies for the acceptance of non-resident patients onto national DDWL, this turned out to be an overly sensitive and politicized issue in the midst of the European migration crisis. Thus, no consensus on best practices could be reached among the participating Council of Europe member states and the present article is limited to providing an overview of the current situation and summarizing the deliberations held by the CD-P-TO.

Although there may not be consensus on policy recommendations achievable at this time, until or unless data pertaining to residence of the traveller for organ transplantation is transparently reported by member states, a governmental responsibility to strive for national self-sufficiency will not be accomplished.

Authorship

AP-B, ML-F and BD-G: planned and designed the study. All authors participated in the interpretation of the data, revised it critically and agree on being accountable for the work.

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Conflicts of interest

The authors declare no conflicts of interest.

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SUPPORTING INFORMATION

Additional supporting information may be found online in the Supporting Information section at the end of the article.

Supplementary Material

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