### 2019 Summary of Non-U.S. Resident Transplant Activity

#### **OPTN Ad Hoc International Relations Committee**

# Background

During 2010, the OPTN Ad Hoc International Relations Committee (IRC) began reviewing OPTN policies related to the transplantation of non-resident aliens. The review focused on two separate subjects: the categories of citizenship for data collection and the language around the perceived 5% guideline for deceased donor transplantation of non-U.S. residents.

The Committee first examined the citizenship data collected on transplant candidates at the time of listing on the Transplant Candidate Registration (TCR) form, living donors on the Living Donor Registration (LDR) form, and deceased donors on the Deceased Donor Registration (DDR) form. The citizenship categories at that time included:

- U.S. Citizen,
- · Resident Alien, and
- Non-Resident Alien.

OPTN policy specifically referenced the non-resident alien category, specifying a guideline that for each program, if more than 5% of deceased donor transplants went to recipients categorized as non-resident aliens, the IRC could review and audit the program's activity. This traditionally included a letter from the Committee asking for additional details about the program's international activities and local population.

After review of the citizenship categories as they were defined in policy and on the data collection forms, it was determined that the definitions were not uniform and did not allow for the proper categorization of undocumented, non-U.S. citizens living in the United States. Additionally, the categories did not allow for the identification of those patients coming to the U.S. specifically for a transplant – the exact group of patients the Committee wanted to better understand.

Based on their review, the Committee developed new categories for the collection of citizenship data. These categories were implemented in UNet<sup>sm</sup> in March, 2012.

The new categories for transplant candidates at the time of listing and for living donors are:

- U.S. Citizen (same as previous category),
- Non-U.S. Citizen/U.S. Resident (this is intended to include all persons living in the United States regardless of immigration status), and
- Non-U.S. Citizen/Non-U.S. Resident (further divided, as noted below)
  - Traveled to U.S. for Reason Other Than Transplant (patient was in the United States for a reason other than transplant) or
  - Traveled to U.S. for Transplant (patient was in the United States specifically for the purpose of transplant).

Citizenship information is provided by the transplant center staff filling out the data collection forms in UNet<sup>sm</sup>.

Similar categories were developed for deceased donors, with no subcategories for non-U.S. citizen/non-U.S. residents.

The following is the updated policy language, approved by the OPTN Board of Directors in June, 2012:

**17.1.B Review of Non-U.S. Citizens/Non-U.S. Resident Registrations and Transplants** The Ad Hoc International Relations Committee will review all citizenship data reported to the OPTN Contractor. The Ad Hoc International Relations Committee may request that transplant hospitals voluntarily provide additional information about registrations or transplants of non-U.S. citizens/non-U.S. residents.

# 17.1.C Report of Activities Related to the Transplantation of Non-U.S. Citizens/Non-U.S. Residents

The Ad Hoc International Relations Committee will prepare and provide public access to an annual report of transplant hospital activities related to the registration and transplantation of non-U.S. citizens/non-U.S. residents.

As outlined in Policy 17.1.C, the OPTN Ad Hoc International Relations Committee will prepare and provide public access to an annual report of transplant hospital activities related to the registration and transplantation of non-U.S. citizens/non-U.S. residents. The current report is the Committee's third fulfillment of this policy requirement.

### **Full Report Methods**

Two tables are produced for each of the following seven organ groups: kidney, kidney-pancreas, pancreas, liver, intestine, heart, and lung. Unless otherwise noted, data include both pediatric (age 0-17) and adult (age 18+) transplant candidates and recipients. Heart-Lung has a section but due to limited data, does not contain the same figures and tables.

The first table displays, by transplant center, the number of registrations added to the waiting list during 2017 and 2018. The total number of registrations added each year is tabulated and, separately, the number of those reported as non-U.S. residents is displayed. Furthermore, the total number of non-U.S. residents is tabulated by whether the candidate is in the U.S. for the purpose of transplant or in the U.S. for other reasons.

The second table displays, by transplant center, the number of deceased donor transplants performed during 2017 and 2018. This table is set up almost identical to the first table displaying waiting list additions. The greatest difference in the second table is that some transplants performed during both 2017 and 2018 were for recipients added to the waiting list prior to March, 2012. For this reason, the 'Non-Resident Alien' category is displayed in tables with transplant data.

A third table is provided, only for kidney and liver, that displays, by transplant center, the number of living donor transplants performed during 2017 and 2018. This table is set up exactly like the second table.

All candidate and recipient citizenship information is based on data provided by the transplant centers on the Transplant Candidate Registration (TCR) form at the time of listing on the waiting list. The revised citizenship categories were implemented in March, 2012.

Throughout the document, the acronym NCNR will be used in place of Non-Citizen/Non-Resident. When used alone, or as Total NCNR, this is the sum of NCNR-TX, NCNR-Other, and Non-Resident Alien (when applicable in recipient data). Additionally, NCNR-TX will represent the NCNR who are in the U.S. specifically for transplant, while NCNR-Other will represent those who are in the U.S. for reasons other than transplant.

Finally, since the focus of this report is candidate and recipient citizenship, data with missing or not reported citizenship are removed from the analysis.

All analyses are based on OPTN data as of April 05, 2019.

# **Summary of Results**

During 2018, a total of 63,457 adult and pediatric registrations were added to the U.S. solid organ transplant waiting list. Of those, 888 (1.4%) were indicated to be for candidates not residing in the United States, including 248 (0.4%) registrations for candidates in the U.S. specifically for the purpose of transplantation. The percentage of non-U.S. resident registrations added in 2018 varies by organ, from 0.3% (4) kidney-pancreas registrations to 3.0% (2) of heart-lung registrations. The 657 kidney and 131 liver additions represent 1.6% and 1.0% of their totals respectively. While 1.3% of adult registrations were non-U.S. residents, 2.6% of pediatric waiting list registrations were for this group of patients.

Approximately 54% (139) of all hospitals (all organs) had no registrations added during 2018 where the candidate citizenship was reported as non-U.S. resident. This translates to 77% (648) individual organ programs that did not add any NCNR registrations to the waiting list. There were 35 hospitals (and 29 kidney, 8 liver, 2 heart, and 3 lung programs) with five or more non-U.S. resident registrations added to the waiting list, and there were 10 hospitals (and 13 kidney, 8 lung, 5 liver, 3 heart, 2 pancreas, 2 intestine, 2 heart-lung and 1 kidney-pancreas programs) with at least 5% of their waiting list additions classified as non-U.S. residents.

During 2018, a total of 29,675 adult and pediatric deceased donor transplants were performed. Of those, 410 (1.4%) were indicated to be for recipients not residing in the United States, including 127 (0.4%) for recipients in the U.S. specifically for the purpose of transplantation. Also of these 410 NCNR deceased donor transplants, 33 were listed as non-resident aliens. The percentage of NCNR deceased donor transplants in 2018 varies by organ, from 0.0% (0) heart-lung deceased donor transplants to 3.8% (4) of intestine deceased donor transplants. The 243 kidney and 93 liver deceased donor transplants represent 1.7% and 1.2% of their totals respectively.

Approximately 68% (172) of all hospitals (all organs) had no deceased donor transplants during 2018 where the candidate citizenship was reported as non-U.S. resident. This translates to 83% (663) individual organ programs that did not perform any deceased donor transplants for NCNR recipients. There were 23 hospitals (and 11 kidney, 6 liver, 1 heart, and 1 lung programs) with five or more NCNR deceased donor transplants, and there were 14 hospitals (and 19 kidney, 9 liver, 5 lung, 4 heart, 1 pancreas, 1 intestine, and 1 kidney-pancreas) with at least 5% of their deceased donor transplants classified as NCNR recipients.

Additionally, in 2018 there were 6,843 living donor transplants. Of these 1.7% (119) were for NCNR recipients. 110 (1.7%) were for kidney recipients and 9 (2.2%) were for liver recipients.

To obtain a copy of the full report, please submit a data request by completing the online request form at <a href="https://optn.transplant.hrsa.gov/data/request-data/">https://optn.transplant.hrsa.gov/data/request-data/</a>.