COVID-19 Guide

Adjustments to Transplant Program and OPO Evaluation Metrics

The Scientific Registry of Transplant Recipients (SRTR), under contract from the Health Resources and Services Administration (HRSA), is charged with evaluating the performance of the nation's transplant system through publication of semi-annual transplant program-specific reports (PSRs) and organ procurement organization (OPO)-specific reports (OSRs). These reports contain performance metrics covering various time periods. For OPOs, these metrics include eligible death conversion rates and deceased donor organ yield. For transplant programs, they include pre-transplant mortality rates (formerly called waitlist mortality rates), transplant rates, organ offer acceptance rates, patient mortality after listing, and 1-month, 1-year, and 3-year posttransplant outcomes including graft survival and patient survival.

In response to the current global pandemic, SRTR modified the evaluation metrics for transplant programs and OPOs for the reports released in January 2021 and July 2021. Theses reports made adjustments to transplant program and OPO performance metrics so that data beyond the declaration of a national public health emergency on March 13, 2020, were not included in the metrics.

Modifications for the January 2022 reporting cycle were considered at the Analytic Methods Subcommittee of the SRTR Review Committee (SRC) at its meeting on March 24, 2021, and the full SRC meeting on April 27, 2021. Both the Analytic Methods Subcommittee and the full SRC recommended an ongoing carve out of the first quarter of the pandemic (March 13, 2020 through June 12, 2020) from adjusted performance metrics, as detailed below. These recommendations were reviewed by HRSA's Division of Transplantation, which oversees SRTR. HRSA approved these recommendations, which SRTR will implement for the January 2022 reporting cycle. These changes will remain in force beyond the January 2022 reporting cycle, unless otherwise amended:

Posttransplant Outcomes (including 1-month, 1-year, and 3-year graft and patient survival): Evaluation cohorts will exclude transplants performed between March 13, 2020 and June 12, 2020, inclusive of March 13 and June 12. Patients given transplants before March 13, 2020 will have follow-up censored on March 12, 2020. Patients given transplants after June 12, 2020 will resume normal follow-up. Follow-up will not resume for patients given transplants before March 13, 2020 who are alive with function on June 12, 2020; however, this may be reconsidered as SRTR continues to explore moving to a period-prevalent methodology:

1-month & 1-year Patient and Graft Survival Evaluations: Transplants 7/1/2018-3/12/2020, follow-up through 3/12/2020. Transplants 6/13/2020-12/31/2020, follow-up through 6/30/2021.

3-year Patient and Graft Survival Evaluations: Transplants 1/1/2016-6/30/2018; follow-up through 3/12/2020.

Pre-Transplant Mortality Rate (formerly called Waitlist Mortality Rate): Evaluation cohorts will exclude March 13, 2020 through June 12, 2020, inclusive of March 13 and June 12:

Days after listing (and before transplant) between 7/1/2019-3/12/2020 and 6/13/2020-6/30/2021.

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Transplant Rate: Evaluation cohorts will exclude March 13, 2020 through June 12, 2020, inclusive of March 13 and June 12:

Candidates on the waitlist 7/1/2019-3/12/2020 and 6/13/2020-6/30/2021.

Overall Rate of Mortality After Listing: Evaluation cohorts will exclude March 13, 2020 through June 12, 2020, inclusive of March 13 and June 12:

Evaluation period: 7/1/2019-3/12/2020 and 6/13/2020-6/30/2021.

Offer Acceptance Rate: These evaluations are based on normal reporting cohorts.

Offers received 7/1/2020-6/30/2021.

These decisions will apply to the evaluations released in the SRTR's semi-annual program-specific reports scheduled for release on January 6, 2022. These changes have been communicated to the leadership of the Organ Procurement and Transplantation Network's (OPTN) Membership and Professional Standards Committee (MSPC). These decisions will then be re-evaluated as more information becomes available in preparation for the release scheduled for July 2022.

As with the July 2021 reports, SRTR will continue to report descriptive data beyond March 12, 2020, e.g., waitlist counts, transplant counts, recipient characteristics, donor counts, donor characteristics, etc., but will alter data for performance evaluation metrics as described above.

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This report contains a wide range of useful information about the liver transplant program at Cardinal Glennon Children's Hospital. The report has three main sections:

A. Program Summary
B. Waiting List Information
C. Transplant Information

The Program Summary is a one-page summary highlighting characteristics of the program, including the number of candidates on the waiting list, the number of transplants performed at the program, the number of patients being cared for by the program, and patient outcomes, including outcomes while on the waiting list (the transplant rate and the death rate while on the waiting list) and outcomes after transplant (patient and graft survival probabilities). If the program performed transplants in both adults and children, survival probabilities for adults and children (pediatrics) are provided separately. For each of the outcomes measures presented, a comparison is provided showing what would be expected at this program if it were performing as similar programs around the country perform when treating similar patients. More details regarding these outcome measures are provided in Sections B and C of the report.

The Waiting List Information section contains more detailed information on how many candidates are on the waiting list at the program, the types of candidates on the waiting list, how long candidates typically have to wait for a transplant at this program, how frequently candidates successfully receive a transplant, and how often candidates on the waiting list die before receiving a transplant.

Table B1 shows the activity on this program's waiting list during two recent 1-year periods and provides comparisons to all programs within this program's OPTN region (see http://optn.transplant.hrsa.gov/members/regions.asp for information on OPTN regions) and the nation as a whole. Tables B2 and B3 describe the candidates on the waiting list at this program, with comparisons to candidates waiting in the same donor service area (OPO/DSA) the OPTN region, and the nation as a whole.

Table B4 shows how many candidates were removed from the waiting list because they received a transplant. The program's transplant rate is calculated as the number of candidates who received a transplant divided by the person-years observed at the program (person-years is a combination of how many candidates were on the waiting list along with how long each candidate was followed since some candidates are not on the waiting list for the entire year). The transplant rate and comparisons to what would be expected at this program are presented in Figures B1 and B2. Figure B1 shows the transplant rate compared to what was expected at this program. The expected transplant rate is an estimate of what we would expect at this program if it were performing transplants at rates similar to other programs in the US with similar candidates on their waiting lists. The expected rate is only an estimate, and is made with a certain level of uncertainty. This uncertainty is shown in Figure B2. Figure B2 displays the ratio of the observed to the expected transplant rate. A ratio of 1 indicates that the observed transplant rate was equal to the expected transplant rate, while a ratio less than 1 indicates the observed rate was lower than expected rate and a ratio greater than 1 indicates the observed rate was higher than the expected rate. However, the level of uncertainty must be considered when interpreting these numbers. The 95% interval is also shown on Figure B2. This interval provides a range within which the true ratio of observed to expected transplant rates is likely to be. If this

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confidence interval includes (crosses) 1.0, then we cannot say that this program's observed transplant rate is different from what would be expected. The observed transplant rate at this program was 47.1 per 100 person-years. Transplant rates are also provided for adult and pediatric patients separately along with comparisons to adult and pediatric rates in the DSA, the OPTN region, and the nation. Transplant rates are also presented excluding transplants from a living donor (Table B4D and Figures B1D-B3D). Please refer to the PSR Technical Methods documentation available at http://www.srtr.org for more detail regarding how expected rates are calculated.

The pre-transplant mortality rate (previously called the waiting list mortality rate) for candidates on the waiting list is presented in Table B5 and Figures B4-B6. These data are presented in the same way as the transplant rate data in the previous section. The intent of this table and figures is to describe risk of death once candidates are listed rather than while they are listed, but before they are transplanted. Therefore, time at risk and deaths after removal from the waiting list for reasons other than transplant, transfer to another transplant program, or recovery (no longer needing a transplant), and before any subsequent transplant, are included. As with transplant rates, mortality rates should be interpreted carefully taking into consideration the interval displayed in Figure B5. For a complete description of how observed and expected mortality rates are calculated, please refer to the technical documentation available at http://www.srtr.org.

Survival from listing is presented in Table B6 and Figures B7-B9. These data are presented in the same way as the pre-transplant mortality rate data in the previous section. The intent of this table and figures is to describe risk of death once candidates are listed rather than while they are listed, including after a transplant. As with transplant rates, mortality rates should be interpreted carefully taking into consideration the interval displayed in Figure B8. For a complete description of how observed and expected mortality rates are calculated, please refer to the technical documentation available at http://www.srtr.org.

Table B7 presents information on what happens to candidates on the waiting list by three different time points after listing: 6 months, 12 months, and 18 months. The table displays percentages of candidates who have died, been removed from the waiting list, been transplanted, or been transferred or lost-to-follow-up. Tables B8 and B9 provide more detail regarding how many candidates have received a deceased donor transplant by certain time points during the first 3 years after being put on the transplant waiting list. Each row of Tables B8 and B9 presents the percent of candidates who received a deceased donor transplant by each time point. Table B10 presents data on the time it took for different percentages of patients to be transplanted for candidates added to the list between 07/01/2015 and 12/31/2020. The time it took for 5% (the 5th percentile) of patients to receive a transplant at this program was 0.2 months. If "Not Observed" is displayed in the table, then too few candidates received transplants before 06/30/2021 to calculate a particular percentile of transplant times.

Table B11 contains a summary of the offer acceptance practices of the program. The offer acceptance ratio indicates whether the program is more or less likely to accept offers than the average program. If the offer acceptance ratio is greater than 1.0, then the program tends to accept more offers than average; if the offer acceptance ratio is less than 1.0, then the program tends to accept fewer offers than average. Figure B10 shows the distribution of program offer acceptance rates as well as the offer acceptance rate for this program. Figures B11 - B15 similarly show offer acceptance rates for subsets

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of offers.

The Transplant Information section begins with descriptions of transplant recipients in Tables C1 and C2. Data on recipients of deceased donor transplants are presented (Tables C1D and C2D); if applicable, data on recipients of living donor transplants are presented separately (Tables C1L and C2L). Comparisons to the region and the nation as a whole are provided. A description of the deceased donors used at this program is provided in Table C3D, along with characteristics of living donors in Table C3L, if applicable. Finally, information on the transplant procedure for deceased and living donor transplants is presented in Tables C4D and C4L, respectively.

Starting with Table C5, transplant outcomes are presented along with comparisons to what would be expected at this program and what happened in the nation as a whole. Tables C5-C10 present information on graft survival (survival of the transplanted organ), with data presented separately for adult and pediatric recipients. Patients are followed from the time of transplant until either failure of the transplanted organ or death, whichever comes first. Please refer to the technical methods for more information on these calculations (http://www.srtr.org).

While Tables C5-C10 present data on graft survival, Tables C11-C16 present information on patient survival. For these tables, patients are followed from the time of transplant until death, regardless of whether the transplant is functioning or the patient required another transplant to survive.

Tables C17 and C18 summarize the multiorgan transplant outcomes at this program. The summary statistics in these tables are descriptive and are not risk-adjusted for different donor and candidate characteristics.

Table D1 shows the rates of follow-up for living donors.

Additional information regarding the technical methods and the risk adjustment models used to estimate expected event rates is available on the SRTR website at http://www.srtr.org. We welcome and encourage feedback on these reports. Please feel free to share feedback with the SRTR at the following e-mail: srtr@srtr.org.

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A. Program Summary

Figure A1. Waiting list and transplant activity

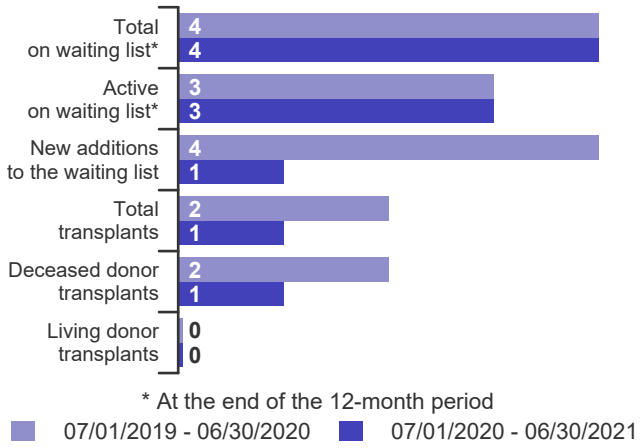


Table A1. Census of transplant recipients

Recipients	07/01/2019-06/30/2020	07/01/2020-06/30/2021
Transplanted at this center	2	1
Followed by this center*	21	15
...transplanted at this program	19	13
...transplanted elsewhere	2	2

* Recipients followed are transplant recipients for whom the center has submitted a post-transplant follow-up form for a transplant that took place before the 12-month interval for each column.

Figure A2. Transplant rates
07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

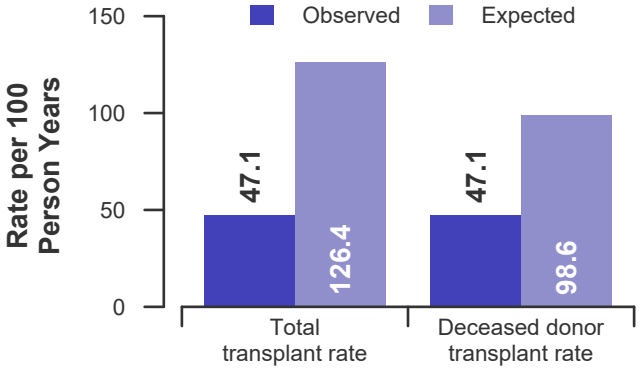


Figure A3. Pre-transplant mortality rates
07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

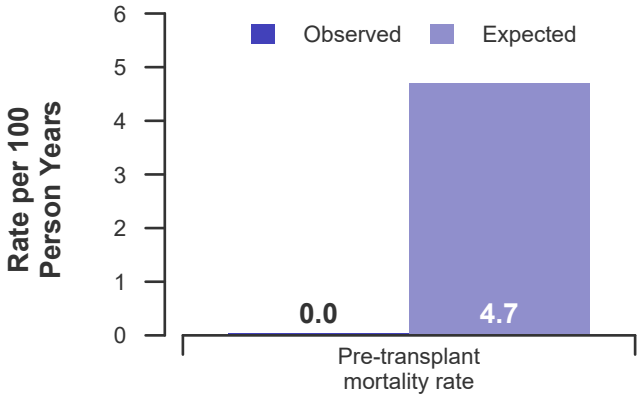
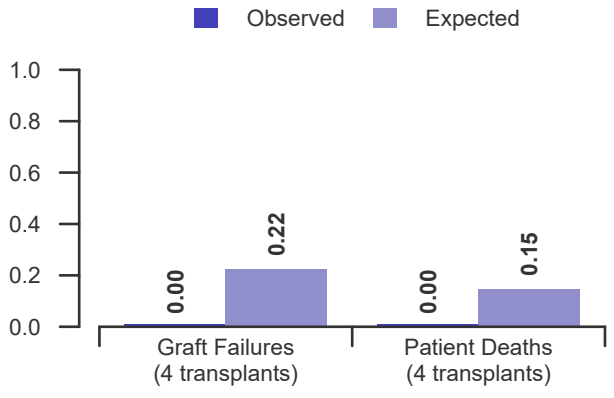


Figure A4. First-year adult graft and patient survival:
07/01/2018 - 03/12/2020, 06/13/2020 - 12/31/2020

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure A5. First-year pediatric graft & patient survival:
07/01/2018 - 03/12/2020, 06/13/2020 - 12/31/2020



B. Waiting List Information

Table B1. Waiting list activity summary: 07/01/2019 - 06/30/2021

Waiting List Registrations	Counts for this center		Activity for 07/01/2020 to 06/30/2021 as percent of registrants on waiting list on 07/01/2020		
	07/01/2019-06/30/2020	07/01/2020-06/30/2021	This Center (%)	OPTN Region (%)	U.S. (%)
On waiting list at start	3	4	100.0	100.0	100.0
Additions					
New listings at this center	4	1	25.0	141.5	110.4
Removals					
Transferred to another center	0	0	0.0	1.2	1.1
Received living donor transplant*	0	0	0.0	3.7	4.3
Received deceased donor transplant*	2	1	25.0	93.1	69.8
Died	0	0	0.0	5.1	8.8
Transplanted at another center	0	0	0.0	1.6	2.4
Deteriorated	1	0	0.0	13.3	9.9
Recovered	0	0	0.0	9.2	8.3
Other reasons	0	0	0.0	10.8	9.6
On waiting list at end of period	4	4	100.0	103.5	96.0

* These patients were removed from waiting list with removal code indicating transplant; this may not equal the number of transplants performed at this center during the specified period.

B. Waiting List Information

Table B2. Demographic characteristics of waiting list candidates
Candidates registered on the waiting list between 07/01/2020 and 06/30/2021

Demographic Characteristic	New Waiting List Registrations 07/01/2020 to 06/30/2021 (%)			All Waiting List Registrations on 06/30/2021 (%)		
	This Center (N=1)	OPTN Region (N=801)	U.S. (N=13,827)	This Center (N=4)	OPTN Region (N=586)	U.S. (N=12,026)
All (%)	100.0	100.0	100.0	100.0	100.0	100.0
Ethnicity/Race (%)*						
White	100.0	78.4	68.3	75.0	78.2	66.8
African-American	0.0	4.2	7.8	25.0	3.8	7.5
Hispanic/Latino	0.0	12.1	17.6	0.0	13.3	19.0
Asian	0.0	2.9	4.5	0.0	2.4	5.3
Other	0.0	2.4	1.7	0.0	2.4	1.5
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Age (%)						
<2 years	0.0	3.2	2.1	75.0	1.9	1.1
2-11 years	0.0	2.1	1.4	25.0	1.7	1.2
12-17 years	100.0	1.2	1.2	0.0	1.2	0.9
18-34 years	0.0	6.6	7.1	0.0	6.8	6.3
35-49 years	0.0	20.2	20.9	0.0	19.8	19.6
50-64 years	0.0	44.9	45.9	0.0	49.1	50.9
65-69 years	0.0	15.2	16.0	0.0	14.8	15.7
70+ years	0.0	6.4	5.4	0.0	4.6	4.2
Gender (%)						
Male	100.0	60.8	61.3	75.0	57.2	60.5
Female	0.0	39.2	38.7	25.0	42.8	39.5

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

B. Waiting List Information

Table B3. Medical characteristics of waiting list candidates
Candidates registered on the waiting list between 07/01/2020 and 06/30/2021

Medical Characteristic	New Waiting List Registrations 07/01/2020 to 06/30/2021 (%)			All Waiting List Registrations on 06/30/2021 (%)		
	This Center (N=1)	OPTN Region (N=801)	U.S. (N=13,827)	This Center (N=4)	OPTN Region (N=586)	U.S. (N=12,026)
All (%)	100.0	100.0	100.0	100.0	100.0	100.0
Blood Type (%)						
O	0.0	48.8	46.5	0.0	48.8	49.0
A	100.0	39.0	37.2	75.0	42.0	38.7
B	0.0	8.7	12.3	25.0	7.3	10.3
AB	0.0	3.5	4.1	0.0	1.9	2.1
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Previous Transplant (%)						
Yes	0.0	5.6	4.6	0.0	4.6	3.5
No	100.0	94.4	95.4	100.0	95.4	96.5
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
Primary Disease (%)						
Acute Hepatic Necrosis	0.0	2.9	5.8	0.0	0.9	1.9
Non-Cholestatic Cirrhosis	100.0	63.4	66.6	0.0	64.0	69.3
Cholestatic Liver Disease/Cirrhosis	0.0	8.6	7.0	0.0	7.7	8.1
Biliary Atresia	0.0	3.1	1.8	100.0	2.7	1.6
Metabolic Diseases	0.0	1.9	1.9	0.0	1.5	1.5
Malignant Neoplasms	0.0	14.2	11.8	0.0	17.4	11.7
Other	0.0	5.7	5.1	0.0	5.8	5.8
Missing	0.0	0.1	0.1	0.0	0.0	0.0
Medical Urgency Status/MELD/PELD at Listing (%)*						
Status 1A	0.0	2.7	2.9	0.0	0.2	0.2
Status 1B	0.0	0.5	0.3	0.0	0.0	0.0
Status 2A	0.0	0.0	0.0	0.0	0.0	0.0
Status 2B	0.0	0.0	0.0	0.0	0.0	0.0
Status 3	0.0	0.0	0.0	0.0	0.5	0.3
MELD 6-10	0.0	12.6	15.9	0.0	23.4	29.5
MELD 11-14	0.0	12.0	12.0	0.0	23.7	22.4
MELD 15-20	0.0	22.5	20.2	0.0	29.5	25.8
MELD 21-30	100.0	27.6	24.1	0.0	16.0	13.6
MELD 31-40	0.0	12.2	13.6	0.0	0.5	0.8
PELD less than or equal to 10	0.0	2.5	1.5	75.0	2.6	1.6
PELD 11-14	0.0	0.7	0.3	25.0	0.5	0.2
PELD 15-20	0.0	0.1	0.4	0.0	0.0	0.2
PELD 21-30	0.0	0.2	0.3	0.0	0.2	0.1
PELD 31 or greater	0.0	0.2	0.1	0.0	0.0	0.0
Temporarily Inactive	0.0	3.5	4.3	0.0	2.9	5.2

* MELD/PELD score based on laboratory measures is shown for listings beginning 2/27/2002 unless patient is Status 1 or Temporarily Inactive. MELD/PELD scores based on exception rules are not used. Status 1 separated into 1A and 1B in August 2005.

B. Waiting List Information

Table B4. Transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Candidates				
Count on waiting list at start*	3	102	652	13,260
Person Years**	6.4	148.4	994.6	22,013.6
Removals for Transplant	3	321	959	16,038
Adult (18+) Candidates				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Removals for transpant	--	--	--	--
Pediatric (<18) Candidates				
Count on waiting list at start*	3	7	27	469
Person Years**	6.4	14.5	41.9	748.7
Removals for transplant	3	29	79	952

* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of the study period. Inactive time on the waiting list is included in the calculations for this table.
** Person years are calculated as days (converted to fractional years). The number of days from July 1 or from the date of first wait listing until death, transplant, removal from the waiting list or June 30. Person years excludes time on the waiting list between March 13, 2020 and June 12, 2020.

Figure B1. Observed and expected transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

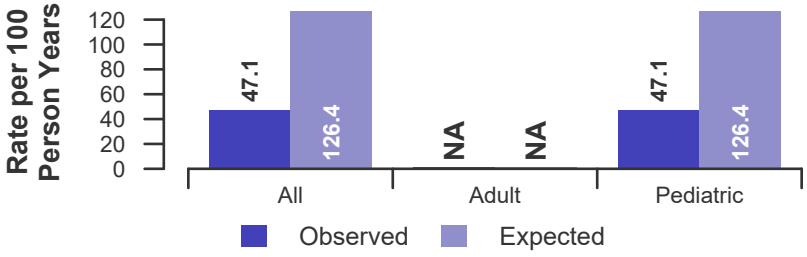


Figure B2. Transplant rate ratio estimate

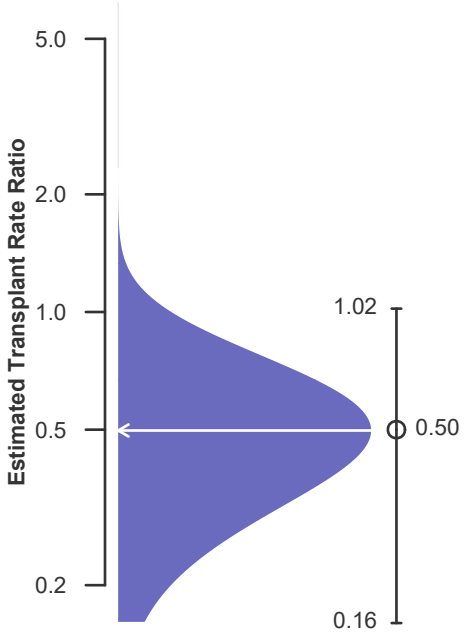
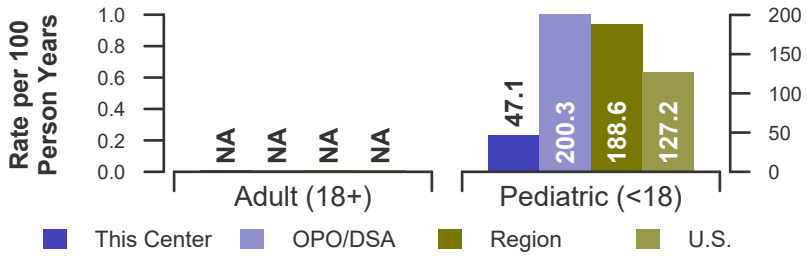


Figure B3. Observed adult (18+) and pediatric (<18) transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021



B. Waiting List Information

Table B4D. Deceased donor transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Candidates				
Count on waiting list at start*	3	102	652	13,260
Person Years**	6.4	148.4	994.6	22,013.6
Removals for Transplant	3	319	921	15,082
Adult (18+) Candidates				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Removals for transpant	--	--	--	--
Pediatric (<18) Candidates				
Count on waiting list at start*	3	7	27	469
Person Years**	6.4	14.5	41.9	748.7
Removals for transplant	3	29	67	817

* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of the study period. Inactive time on the waiting list is included in the calculations for this table.
** Person years are calculated as days (converted to fractional years). The number of days from July 1 or from the date of first wait listing until death, transplant, removal from the waiting list or June 30. Person years excludes time on the waiting list between March 13, 2020 and June 12, 2020.

Figure B1D. Observed and expected deceased donor transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

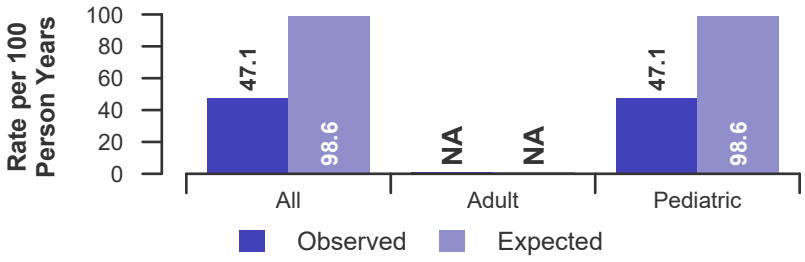


Figure B3D. Observed adult (18+) and pediatric (<18) deceased donor transplant rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

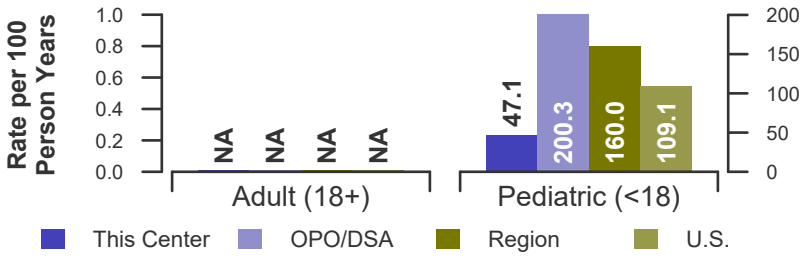
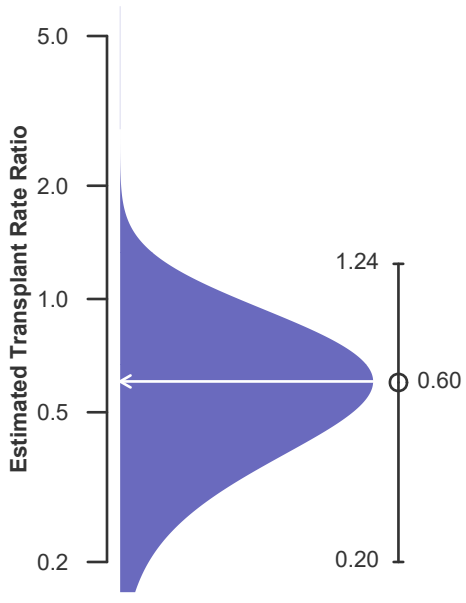


Figure B2D. Deceased donor transplant rate ratio estimate



B. Waiting List Information

Table B5. Pre-transplant mortality rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Candidates				
Count on waiting list at start*	3	102	652	13,260
Person Years**	7.4	184.7	1,206.7	25,646.7
Number of deaths	0	27	121	3,030
Adult (18+) Candidates				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Number of deaths	--	--	--	--
Pediatric (<18) Candidates				
Count on waiting list at start*	3	7	27	469
Person Years**	7.4	15.7	44.8	819.9
Number of deaths	0	1	3	42

* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of the study period. Inactive time on the waiting list is included in the calculations for this table.

** Person years are calculated as days (converted to fractional years). The number of days from July 1 or from the date of first wait listing until death, transplant, 60 days after recovery, transfer or June 30. Person years excludes time on the waiting list between March 13, 2020 and June 12, 2020.

Figure B4. Observed and expected pre-transplant mortality rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

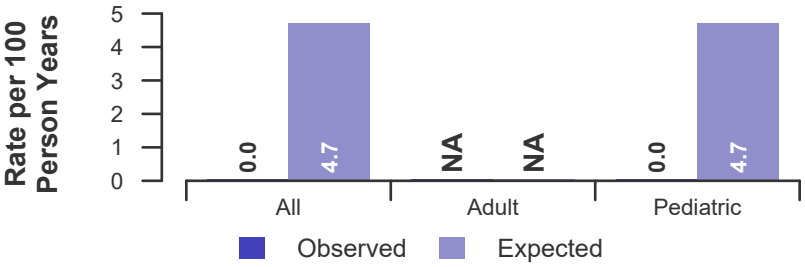


Figure B5. Pre-transplant mortality rate ratio estimate

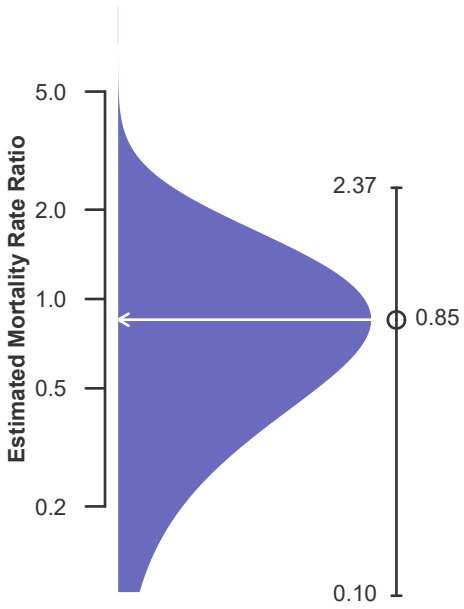
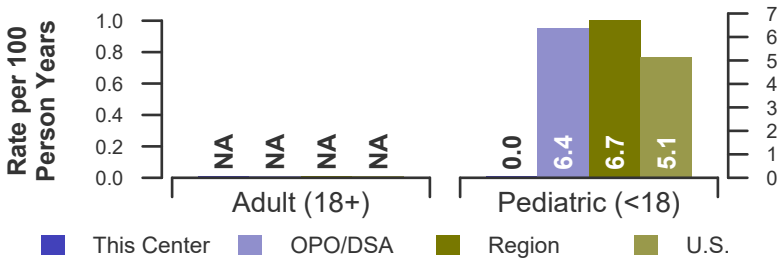


Figure B6. Observed adult (18+) and pediatric (<18) pre-transplant mortality rates: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021



B. Waiting List Information

Table B6. Rates of patient mortality after listing: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
All Patients				
Count at risk during the evaluation period	10	1,198	4,413	75,013
Person-years*	12.0	1,387.6	5,196.0	88,733.8
Number of Deaths	0	79	306	6,078
Adult (18+) Patients				
Count at risk during the evaluation period	0	1,088	4,077	70,657
Person-years*	0.0	1,261.3	4,785.4	83,332.5
Number of Deaths	0	76	293	5,962
Pediatric (<18) Patients				
Count at risk during the evaluation period	10	110	336	4,356
Person-years*	12.0	126.3	410.7	5,401.3
Number of Deaths	0	3	13	116

* Person-years are calculated as days (converted to fractional years). The number of days from 07/01/2019, or from the date of first wait listing until death, reaching 5 years after listing or June 30, 2021. Person years excludes time on the waiting list between March 13, 2020 and June 12, 2020.

** Patient mortality after listing describes the relative survival experience of patients after listing. It depends on many factors, some of which are outside of the control of the transplant program. For example, availability of organs may not be the same in every part of the country.

Figure B7. Observed and expected rates of patient mortality after listing: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021

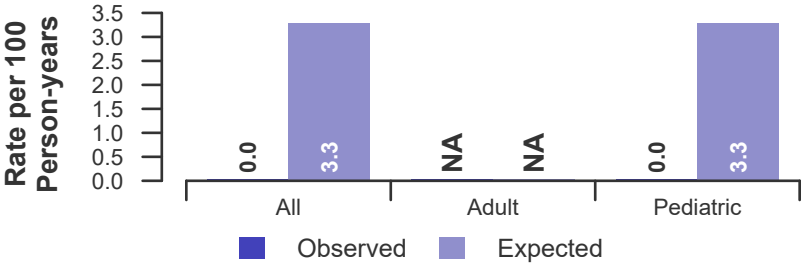


Figure B8. HR estimate of patient mortality after listing

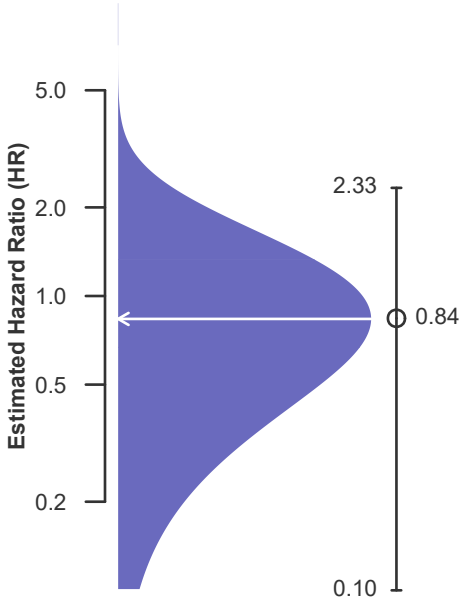
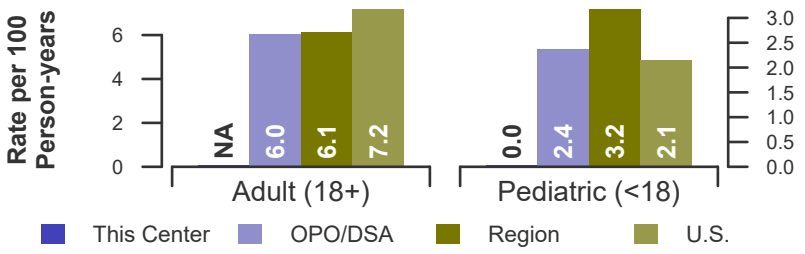


Figure B9. Observed adult (18+) and pediatric (<18) rates of patient mortality after listing: 07/01/2019 - 03/12/2020, 06/13/2020 - 06/30/2021



B. Waiting List Information

Table B7. Waiting list candidate status after listing
Candidates registered on waiting list between 01/01/2019 and 12/31/2019

Waiting list status (survival status)	This Center (N=4) Months Since Listing			U.S. (N=13,462) Months Since Listing		
	6	12	18	6	12	18
Alive on waiting list (%)	25.0	25.0	25.0	43.8	26.1	17.9
Died on the waiting list without transplant (%)	25.0	25.0	25.0	4.7	6.0	6.7
Removed without transplant (%):						
Condition worsened (status unknown)	0.0	0.0	0.0	3.8	5.6	6.7
Condition improved (status unknown)	0.0	0.0	0.0	1.3	2.1	3.1
Refused transplant (status unknown)	0.0	0.0	0.0	0.2	0.4	0.6
Other	0.0	0.0	0.0	1.9	3.3	4.3
Transplant (living donor from waiting list only) (%):						
Functioning (alive)	0.0	0.0	0.0	2.5	3.0	2.1
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.0	0.1	0.1
Failed-alive not retransplanted	0.0	0.0	0.0	0.0	0.0	0.0
Died	0.0	0.0	0.0	0.0	0.1	0.1
Status Yet Unknown**	0.0	0.0	0.0	0.0	0.1	1.2
Transplant (deceased donor) (%):						
Functioning (alive)	50.0	50.0	25.0	37.4	44.3	35.0
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.4	0.6	0.7
Failed-alive not retransplanted	0.0	0.0	0.0	0.0	0.0	0.0
Died	0.0	0.0	0.0	1.6	2.9	4.0
Status Yet Unknown*	0.0	0.0	25.0	2.1	4.9	16.9
Lost or Transferred (status unknown) (%)	0.0	0.0	0.0	0.3	0.6	0.7
TOTAL (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total % known died on waiting list or after transplant	25.0	25.0	25.0	6.3	8.9	10.8
Total % known died or removed as unstable	25.0	25.0	25.0	10.1	14.5	17.5
Total % removed for transplant	50.0	50.0	50.0	44.1	55.9	60.1
Total % with known functioning transplant (alive)	50.0	50.0	25.0	39.9	47.3	37.1

* Follow-up form covering specified time period not yet completed, and possibly has not become due.

B. Waiting List Information

Table B7S1. Medical urgency status 1 candidate status after listing
Candidates registered on the waiting list between 01/01/2019 and 12/31/2019

Waiting list status (survival status)	This Center (N=1) Months Since listing			U.S. (N=443) Months Since listing		
	6	12	18	6	12	18
Alive on waiting list (%)	0.0	0.0	0.0	3.6	2.5	0.9
Died on the waiting list without transplant (%)	0.0	0.0	0.0	8.1	8.4	8.4
Removed without transplant (%):						
Condition worsened (status unknown)	0.0	0.0	0.0	5.2	5.2	5.2
Condition improved (status unknown)	0.0	0.0	0.0	18.5	19.2	20.5
Refused transplant (status unknown)	0.0	0.0	0.0	0.2	0.5	0.5
Other	0.0	0.0	0.0	1.1	1.1	1.1
Transplant (living donor from waiting list only) (%):						
Functioning (alive)	0.0	0.0	0.0	1.1	0.9	0.5
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.0	0.0	0.0
Failed-alive not retransplanted	0.0	0.0	0.0	0.0	0.0	0.0
Died	0.0	0.0	0.0	0.0	0.0	0.0
Status Yet Unknown**	0.0	0.0	0.0	0.0	0.2	0.7
Transplant (deceased donor) (%):						
Functioning (alive)	100.0	100.0	0.0	55.1	50.6	35.4
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.7	0.7	0.9
Failed-alive not retransplanted	0.0	0.0	0.0	0.5	0.2	0.0
Died	0.0	0.0	0.0	4.7	5.6	6.3
Status Yet Unknown*	0.0	0.0	100.0	0.9	4.7	19.4
Lost or Transferred (status unknown) (%)	0.0	0.0	0.0	0.2	0.2	0.2
TOTAL (%)	100.0	100.0	100.0	100.0	100.0	100.0
Total % known died on waiting list or after transplant	0.0	0.0	0.0	12.9	14.0	14.7
Total % known died or removed as unstable	0.0	0.0	0.0	18.1	19.2	19.9
Total % removed for transplant	100.0	100.0	100.0	63.0	63.0	63.2
Total % with known functioning transplant (alive)	100.0	100.0	0.0	56.2	51.5	35.9

* Follow-up form covering specified time period not yet completed, and possibly has not become due.

B. Waiting List Information

Table B8. Percent of candidates with deceased donor transplants: demographic characteristics
Candidates registered on the waiting list between 07/01/2015 and 06/30/2018

Characteristic	Percent transplanted at time periods since listing									
	This Center					United States				
	N	30 day	1 year	2 years	3 years	N	30 day	1 year	2 years	3 years
All	6	50.0	66.7	66.7	66.7	37,864	19.7	49.3	56.7	58.4
Ethnicity/Race*										
White	3	100.0	100.0	100.0	100.0	25,974	19.8	50.5	57.4	59.0
African-American	3	0.0	33.3	33.3	33.3	3,348	22.8	53.2	60.5	62.1
Hispanic/Latino	0	--	--	--	--	6,109	18.2	44.2	52.5	54.8
Asian	0	--	--	--	--	1,820	17.3	42.2	53.4	55.3
Other	0	--	--	--	--	613	20.1	48.9	56.6	57.6
Unknown	0	--	--	--	--	0	--	--	--	--
Age										
<2 years	2	0.0	50.0	50.0	50.0	895	23.5	69.8	73.6	74.9
2-11 years	3	66.7	66.7	66.7	66.7	733	27.7	70.3	75.4	77.6
12-17 years	0	--	--	--	--	467	22.7	55.5	65.1	67.7
18-34 years	1	100.0	100.0	100.0	100.0	2,189	27.7	50.1	56.4	58.7
35-49 years	0	--	--	--	--	6,204	27.7	51.8	57.3	59.1
50-64 years	0	--	--	--	--	19,983	18.0	48.0	55.9	57.7
65-69 years	0	--	--	--	--	6,029	13.9	46.1	54.5	56.0
70+ years	0	--	--	--	--	1,364	13.3	43.3	51.1	51.8
Gender										
Male	1	0.0	0.0	0.0	0.0	23,845	19.4	50.4	58.2	59.9
Female	5	60.0	80.0	80.0	80.0	14,019	20.2	47.5	54.0	55.8

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

B. Waiting List Information

Table B9. Percent of candidates with deceased donor transplants: medical characteristics
Candidates registered on the waiting list between 07/01/2015 and 06/30/2018

Characteristic	Percent transplanted at time periods since listing									
	This Center					United States				
	N	30 day	1 year	2 years	3 years	N	30 day	1 year	2 years	3 years
All	6	50.0	66.7	66.7	66.7	37,864	19.7	49.3	56.7	58.4
Blood Type										
O	2	50.0	100.0	100.0	100.0	17,654	19.1	47.1	54.9	56.8
A	2	50.0	50.0	50.0	50.0	13,973	18.6	48.0	55.3	57.0
B	2	50.0	50.0	50.0	50.0	4,726	22.0	55.7	62.4	64.0
AB	0	--	--	--	--	1,511	30.4	67.5	71.3	72.5
Previous Transplant										
Yes	2	100.0	100.0	100.0	100.0	1,931	28.2	52.0	57.9	59.4
No	4	25.0	50.0	50.0	50.0	35,933	19.2	49.2	56.6	58.3
Primary Disease										
Acute Hepatic Necrosis	0	--	--	--	--	1,573	48.6	57.5	60.3	61.2
Non-Cholestatic Cirrhosis	0	--	--	--	--	25,191	20.4	48.1	54.6	56.2
Cholestatic Liver Disease/Cirrhosis	0	--	--	--	--	2,672	16.7	48.7	56.4	59.3
Biliary Atresia	4	25.0	50.0	50.0	50.0	778	16.6	64.9	72.1	74.3
Metabolic Diseases	0	--	--	--	--	918	23.1	64.2	70.0	71.9
Malignant Neoplasms	0	--	--	--	--	4,761	7.8	47.9	61.2	62.7
Other	2	100.0	100.0	100.0	100.0	1,960	20.3	49.2	57.9	59.7
Missing	0	--	--	--	--	11	9.1	27.3	36.4	36.4
Medical Urgency Status/MELD/PELD at Listing*										
Status 1	0	--	--	--	--	0	--	--	--	--
Status 1A	1	100.0	100.0	100.0	100.0	1,114	60.2	61.3	61.3	61.3
Status 1B	0	--	--	--	--	155	45.2	83.2	83.2	83.2
Status 2A	0	--	--	--	--	0	--	--	--	--
Status 2B	0	--	--	--	--	0	--	--	--	--
Status 3	0	--	--	--	--	0	--	--	--	--
MELD 6-10	0	--	--	--	--	7,599	2.4	37.5	50.8	53.1
MELD 11-14	0	--	--	--	--	5,320	2.3	32.0	43.1	45.9
MELD 15-20	0	--	--	--	--	8,069	8.4	42.4	51.3	53.7
MELD 21-30	0	--	--	--	--	8,266	25.4	58.9	62.2	63.3
MELD 31-40	1	100.0	100.0	100.0	100.0	3,829	67.2	76.2	76.6	76.8
PELD less than or equal to 10	1	100.0	100.0	100.0	100.0	738	11.5	67.2	74.0	77.0
PELD 11-14	1	0.0	0.0	0.0	0.0	104	18.3	76.0	82.7	84.6
PELD 15-20	2	0.0	50.0	50.0	50.0	164	14.0	73.8	79.3	79.9
PELD 21-30	0	--	--	--	--	159	34.6	76.1	78.6	78.6
PELD 31 or greater	0	--	--	--	--	52	61.5	78.8	78.8	78.8
Temporarily Inactive	0	--	--	--	--	2,295	37.0	54.3	58.9	59.4

* MELD/PELD score based on laboratory measures is shown for listings beginning 2/27/2002 unless patient is Status 1 or Temporarily Inactive. MELD/PELD scores based on exception rules are not used. Status 1 separated into 1A and 1B in August 2005.

B. Waiting List Information

Table B10. Time to transplant for waiting list candidates*
Candidates registered on the waiting list between 07/01/2015 and 12/31/2020

	Months to Transplant**			
Percentile	**Center**	**OPO/DSA**	**Region**	**U.S.**
5th	0.2	0.1	0.1	0.1
10th	0.2	0.2	0.3	0.2
25th	0.5	1.0	1.3	1.3
50th (median time to transplant)	9.8	4.8	7.5	8.7
75th	Not Observed	Not Observed	Not Observed	Not Observed

* If cells contain "Not Observed" fewer than that percentile of patients had received a transplant. For example, the 50th percentile of time to transplant is the time when 50% of candidates have received transplants. If waiting times are long, then the 50th percentile may not be observed during the follow-up period for this table. Also, if more than 50% of candidates are removed from the list due to death or other reasons before receiving transplants, then the 50th percentile of time to transplant will not be observed.

** Censored on 06/30/2021. Calculated as the months after listing, during which the corresponding percent of all patients initially listed had received a transplant.

B. Waiting List Information

Table B11. Offer Acceptance Practices: 07/01/2020 - 06/30/2021

Offers Acceptance Characteristics	This Center	OPO/DSA	Region	U.S.
Overall				
Number of Offers	155	3,566	11,663	287,435
Number of Acceptances	1	166	470	7,738
Expected Acceptances	2.3	128.9	448.0	7,728.1
Offer Acceptance Ratio*	0.70	1.28	1.05	1.00
95% Credible Interval**	[0.14, 1.69]	--	--	--
PHS increased infectious risk				
Number of Offers	11	669	2,630	57,798
Number of Acceptances	1	35	108	1,934
Expected Acceptances	0.4	31.0	103.7	1,931.5
Offer Acceptance Ratio*	1.27	1.12	1.04	1.00
95% Credible Interval**	[0.26, 3.06]	--	--	--
DCD donor				
Number of Offers	0	478	2,776	69,977
Number of Acceptances	0	15	54	780
Expected Acceptances	0.0	12.7	54.0	782.7
Offer Acceptance Ratio*	--	1.16	1.00	1.00
95% Credible Interval**	[--, --]	--	--	--
HCV+ donor				
Number of Offers	0	158	567	11,186
Number of Acceptances	0	13	21	443
Expected Acceptances	0.0	12.7	29.4	442.9
Offer Acceptance Ratio*	--	1.02	0.73	1.00
95% Credible Interval**	[--, --]	--	--	--
Hard-to-Place Livers (Over 50 Offers)				
Number of Offers	0	1,124	5,444	180,094
Number of Acceptances	0	18	31	946
Expected Acceptances	0.0	7.8	30.5	953.4
Offer Acceptance Ratio*	--	2.05	1.02	0.99
95% Credible Interval**	[--, --]	--	--	--
Donor more than 500 miles away				
Number of Offers	93	1,122	4,552	94,132
Number of Acceptances	0	21	57	924
Expected Acceptances	0.9	19.9	68.3	889.6
Offer Acceptance Ratio*	0.70	1.05	0.84	1.04
95% Credible Interval**	[0.08, 1.95]	--	--	--

* The offer acceptance ratio estimates the relative offer acceptance practice of Cardinal Glennon Children's Hospital compared to the national offer acceptance practice. A ratio above one indicates the program is more likely to accept an offer compared to national offer acceptance practices (e.g., an offer acceptance ratio of 1.25 indicates a 25% more likely to accept an offer), while a ratio below one indicates the program is less likely to accept an offer compared to national offer acceptance practices (e.g., an offer acceptance ratio of 0.75 indicates a 25% less likely to accept an offer).
** As an example, the 95% Credible Interval for the overall offer acceptance ratio, [0.14, 1.69], indicates the location of MOCG's true offer acceptance ratio with 95% probability. The best estimate is 30% less likely to accept an offer compared to nationalacceptance behavior, but MOCG's performance could plausibly range from 86% reduced acceptance up to 69% higher acceptance.

B. Waiting List Information

Figure B10. Offer acceptance: Overall

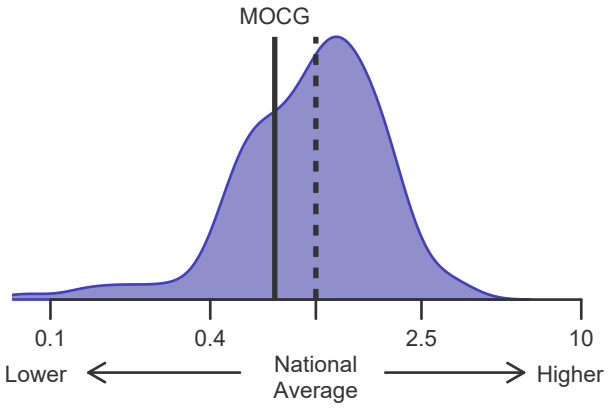


Figure B11. Offer acceptance: PHS increased infectious risk

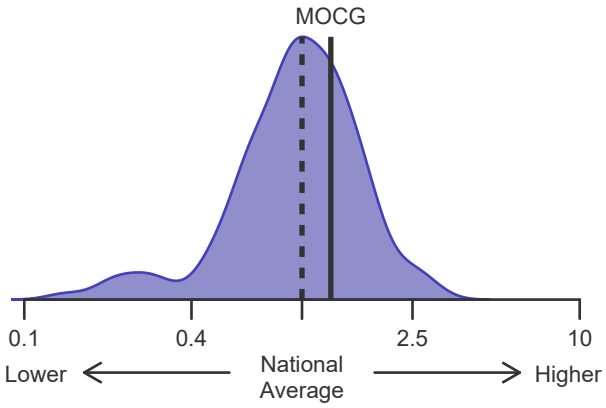


Figure B12. Offer acceptance: DCD Donor

This program received no offers.

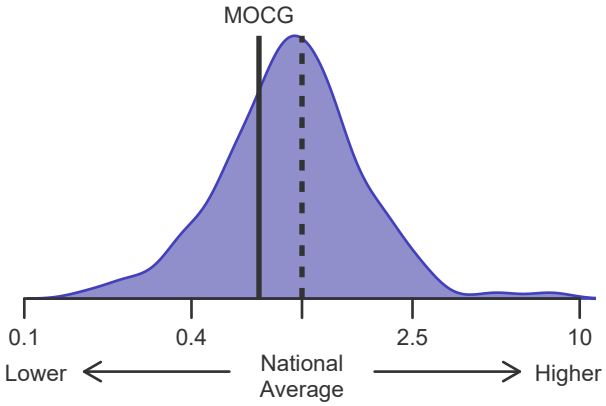
Figure B13. Offer acceptance: HCV+ Donor

This program received no offers.

Figure B14. Offer acceptance: Offer number > 50

This program received no offers.

Figure B15. Offer acceptance: Donor more than 500 miles away



C. Transplant Information

Table C1D. Deceased donor transplant recipient demographic characteristics
Patients transplanted between 07/01/2020 and 06/30/2021

Characteristic	Percentage in each category		
	Center (N=1)	Region (N=527)	U.S. (N=8,751)
Ethnicity/Race (%)*			
White	100.0	78.9	68.7
African-American	0.0	5.7	7.8
Hispanic/Latino	0.0	10.4	16.9
Asian	0.0	2.8	4.8
Other	0.0	2.1	1.8
Unknown	0.0	0.0	0.0
Age (%)			
<2 years	0.0	2.8	2.0
2-11 years	0.0	2.3	1.7
12-17	100.0	1.9	1.4
18-34	0.0	7.0	6.8
35-49 years	0.0	18.6	21.1
50-64 years	0.0	45.5	45.3
65-69 years	0.0	15.7	15.9
70+ years	0.0	6.1	5.6
Gender (%)			
Male	100.0	62.0	62.6
Female	0.0	38.0	37.4

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

C. Transplant Information

Table C1L. Living donor transplant recipient demographic characteristics
Patients transplanted between 07/01/2020 and 06/30/2021

This center did not perform any transplants relevant to this table during 07/01/2020-06/30/2021

C. Transplant Information

Table C2D. Deceased donor transplant recipient medical characteristics
Patients transplanted between 07/01/2020 and 06/30/2021

Characteristic	Percentage in each category		
	Center (N=1)	Region (N=527)	U.S. (N=8,751)
Blood Type (%)			
O	0.0	46.5	45.7
A	100.0	38.0	35.8
B	0.0	11.2	13.6
AB	0.0	4.4	5.0
Previous Transplant (%)			
Yes	0.0	6.5	4.8
No	100.0	93.5	95.2
Body Mass Index (%)			
0-20	0.0	12.7	10.8
21-25	100.0	26.8	26.1
26-30	0.0	31.3	29.6
31-35	0.0	17.3	17.7
36-40	0.0	8.9	9.2
41+	0.0	2.3	4.2
Unknown	0.0	0.8	2.4
Primary Disease (%)			
Acute Hepatic Necrosis	0.0	3.2	6.1
Non-Cholestatic Cirrhosis	100.0	65.5	67.1
Cholestatic Liver Disease/Cirrhosis	0.0	10.4	6.5
Biliary Atresia	0.0	2.7	2.0
Metabolic Diseases	0.0	2.1	2.4
Malignant Neoplasms	0.0	12.1	12.5
Other	0.0	4.0	3.3
Missing	0.0	0.0	0.1
Medical Urgency Statust/MELD/PELD at Transplant (%)*			
Status 1A	0.0	3.2	3.3
Status 1B	0.0	1.7	0.9
MELD 6-10	0.0	6.6	10.3
MELD 11-14	0.0	5.9	6.8
MELD 15-20	0.0	20.7	14.1
MELD 21-30	100.0	34.0	30.3
MELD 31-40	0.0	20.3	24.5
PELD less than or equal to 10	0.0	1.5	1.2
PELD 11-14	0.0	0.2	0.3
PELD 15-20	0.0	0.8	0.5
PELD 21-30	0.0	0.2	0.4
PELD 31 or greater	0.0	0.2	0.2
Temporarily Inactive	0.0	0.0	0.0
Recipient Medical Condition at Transplant (%)			
Not Hospitalized	100.0	70.2	57.7
Hospitalized	0.0	20.1	25.7
ICU	0.0	9.7	16.5
Unknown	0.0	0.0	0.1

* MELD/PELD score based on laboratory measures at the time of transplant is shown unless recipient is Status 1 or Temporarily Inactive. MELD/PELD scores based on exception rules are not used. Status 1 separated into 1A and 1B in August 2005

C. Transplant Information

Table C2L. Living donor transplant recipient medical characteristics
Patients transplanted between 07/01/2020 and 06/30/2021

This center did not perform any transplants relevant to this table during 07/01/2020-06/30/2021

C. Transplant Information

Table C3D. Deceased donor characteristics
Transplants performed between 07/01/2020 and 06/30/2021

Donor Characteristic	Percentage in each category		
	Center (N=1)	Region (N=527)	U.S. (N=8,751)
Cause of Death (%)			
Deceased: Stroke	0.0	23.0	25.9
Deceased: MVA	0.0	13.1	12.3
Deceased: Other	100.0	63.9	61.8
Ethnicity/Race (%)*			
White	0.0	75.0	62.8
African-American	0.0	13.3	18.3
Hispanic/Latino	100.0	9.1	14.9
Asian	0.0	1.1	3.0
Other	0.0	1.5	1.0
Not Reported	0.0	0.0	0.0
Age (%)			
<2 years	0.0	1.7	0.9
2-11 years	0.0	3.8	2.3
12-17	100.0	4.9	4.4
18-34	0.0	31.9	32.8
35-49 years	0.0	24.3	28.3
50-64 years	0.0	21.4	23.9
65-69 years	0.0	6.5	4.3
70+ years	0.0	5.5	3.2
Gender (%)			
Male	100.0	61.9	61.2
Female	0.0	38.1	38.8
Blood Type (%)			
O	0.0	48.6	49.9
A	100.0	39.3	36.3
B	0.0	10.4	11.0
AB	0.0	1.7	2.8
Unknown	0.0	0.0	0.0

* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

C. Transplant Information

Table C3L. Living donor characteristics
Transplants performed between 07/01/2020 and 06/30/2021

This center did not perform any transplants relevant to this table during 07/01/2020-06/30/2021

C. Transplant Information

Table C4D. Deceased donor transplant characteristics
Transplants performed between 07/01/2020 and 06/30/2021

Transplant Characteristic	Percentage in each category		
	Center (N=1)	Region (N=527)	U.S. (N=8,751)
Cold Ischemic Time (Hours): Local (%)			
Deceased: 0-5 hr	--	78.9	67.1
Deceased: 6-10 hr	--	19.7	31.0
Deceased: 11-15 hr	--	0.9	1.0
Deceased: 16-20 hr	--	0.0	0.2
Deceased: 21+ hr	--	0.0	0.1
Not Reported	--	0.4	0.8
Cold Ischemic Time (Hours): Shared (%)			
Deceased: 0-5 hr	0.0	53.2	45.0
Deceased: 6-10 hr	100.0	44.8	51.8
Deceased: 11-15 hr	0.0	1.3	1.7
Deceased: 16-20 hr	0.0	0.3	0.1
Deceased: 21+ hr	0.0	0.0	0.1
Not Reported	0.0	0.3	1.2
Procedure Type (%)			
Single organ	100.0	89.8	89.5
Multi organ	0.0	10.2	10.5
Donor Location (%)			
Local Donation Service Area (DSA)	0.0	43.3	34.7
Another Donation Service Area (DSA)	100.0	56.7	65.3
Median Time in Hospital After Transplant	13.0 Days	11.0 Days	11.0 Days

C. Transplant Information

Table C4L. Living donor transplant characteristics
Transplants performed between 07/01/2020 and 06/30/2021

This center did not perform any transplants relevant to this table during 07/01/2020-06/30/2021

C. Transplant Information

Table C5. Adult (18+) 1-month survival with a functioning graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C1. Adult (18+) 1-month graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C2. Adult (18+) 1-month graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C5D. Adult (18+) 1-month survival with a functioning deceased donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C1D. Adult (18+) 1-month deceased donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C2D. Adult (18+) 1-month deceased donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C5L. Adult (18+) 1-month survival with a functioning living donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C1L. Adult (18+) 1-month living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C2L. Adult (18+) 1-month living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C6. Adult (18+) 1-year survival with a functioning graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C3. Adult (18+) 1-year graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C4. Adult (18+) 1-year graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C6D. Adult (18+) 1-year survival with a functioning deceased donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C3D. Adult (18+) 1-year deceased donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C4D. Adult (18+) 1-year deceased donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C6L. Adult (18+) 1-year survival with a functioning living donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C3L. Adult (18+) 1-year living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C4L. Adult (18+) 1-year living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C7. Adult (18+) 3-year survival with a functioning graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	1	16,600
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	0.00%	85.83%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	79.66%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	1	2,213
Number of expected graft failures (including deaths) during the first 3 years after transplant	0.15	--
Estimated hazard ratio*	1.39	--
95% credible interval for the hazard ratio**	[0.29, 3.36]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.29, 3.36], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 39% higher risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 71% reduced risk up to 236% increased risk.

Figure C5. Adult (18+) 3-year graft failure HR estimate

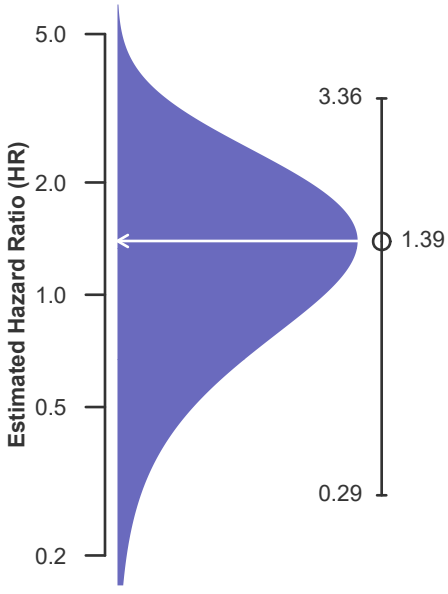
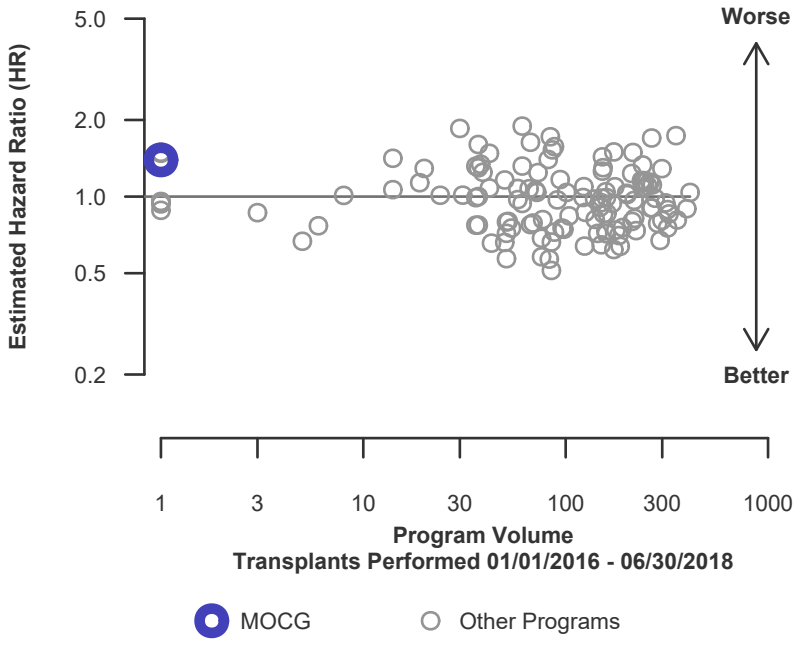


Figure C6. Adult (18+) 3-year graft failure HR program comparison



C. Transplant Information

Table C7D. Adult (18+) 3-year survival with a functioning deceased donor graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	1	15,876
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	0.00%	85.77%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	79.66%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	1	2,124
Number of expected graft failures (including deaths) during the first 3 years after transplant	0.15	--
Estimated hazard ratio*	1.39	--
95% credible interval for the hazard ratio**	[0.29, 3.36]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.29, 3.36], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 39% higher risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 71% reduced risk up to 236% increased risk.

Figure C5D. Adult (18+) 3-year deceased donor graft failure HR estimate

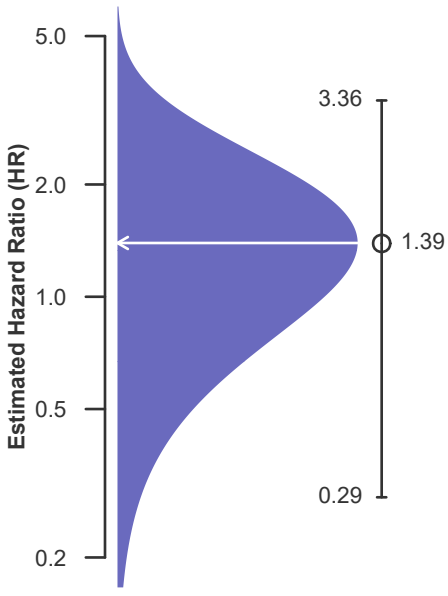
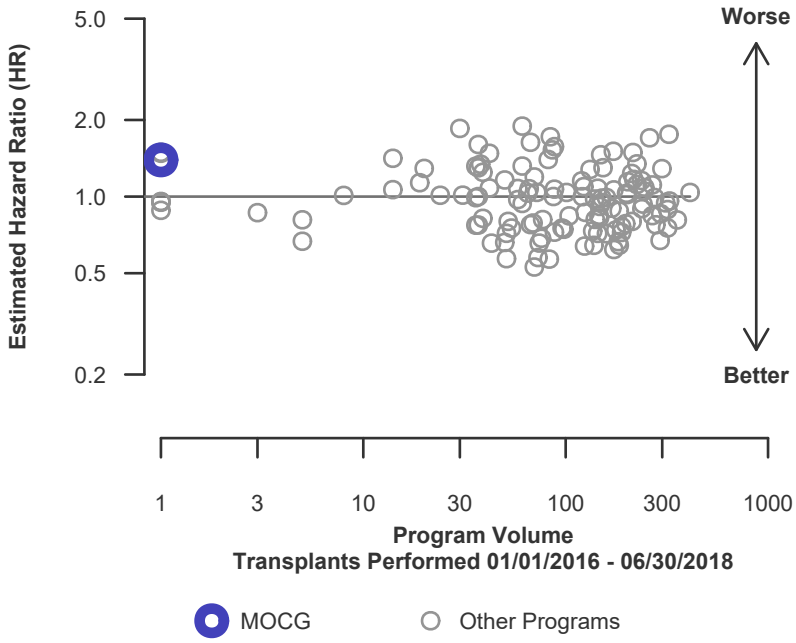


Figure C6D. Adult (18+) 3-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C7L. Adult (18+) 3-year survival with a functioning living donor graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C5L. Adult (18+) 3-year living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C6L. Adult (18+) 3-year living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C8. Pediatric (<18) 1-month survival with a functioning graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,142
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	100.00%	95.58%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	96.66%	--
Number of observed graft failures (including deaths) during the first month after transplant	0	50
Number of expected graft failures (including deaths) during the first month after transplant	0.14	--
Estimated hazard ratio*	0.94	--
95% credible interval for the hazard ratio**	[0.11, 2.61]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.61], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 6% lower risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 161% increased risk.

Figure C7. Pediatric (<18) 1-month graft failure HR estimate

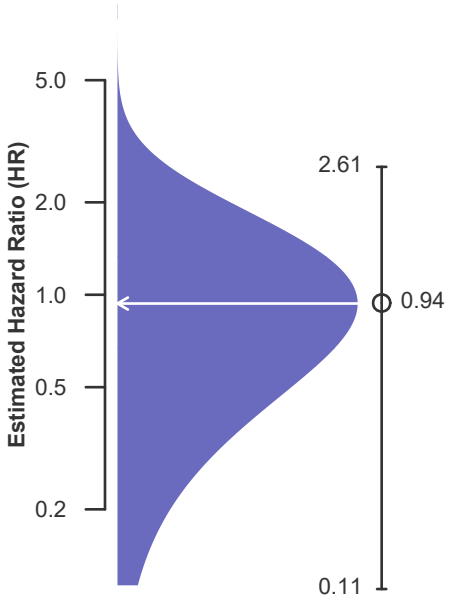
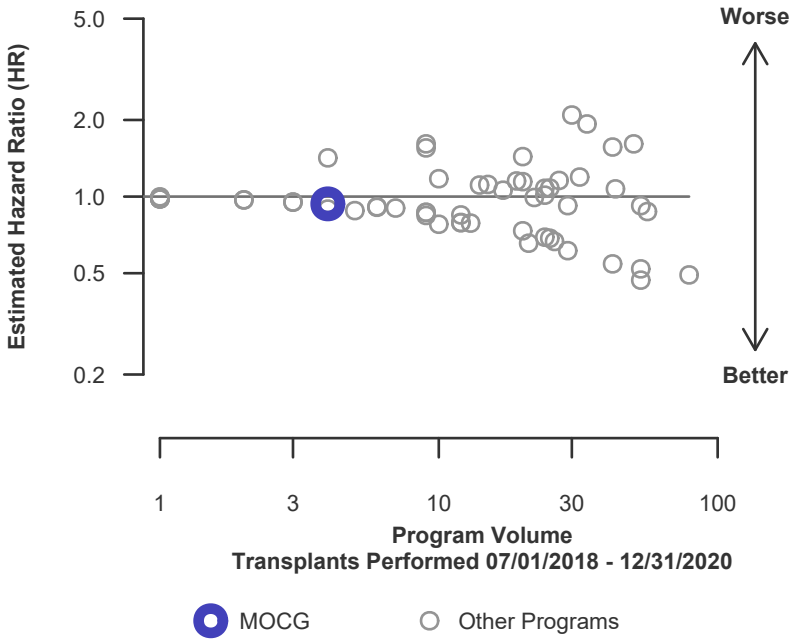


Figure C8. Pediatric (<18) 1-month graft failure HR program comparison



C. Transplant Information

Table C8D. Pediatric (<18) 1-month survival with a functioning deceased donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	970
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	100.00%	95.32%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	96.66%	--
Number of observed graft failures (including deaths) during the first month after transplant	0	45
Number of expected graft failures (including deaths) during the first month after transplant	0.14	--
Estimated hazard ratio*	0.94	--
95% credible interval for the hazard ratio**	[0.11, 2.61]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.61], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 6% lower risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 161% increased risk.

Figure C7D. Pediatric (<18) 1-month deceased donor graft failure HR estimate

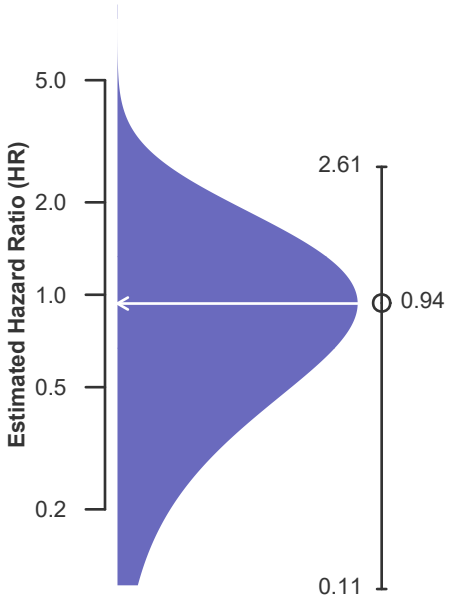
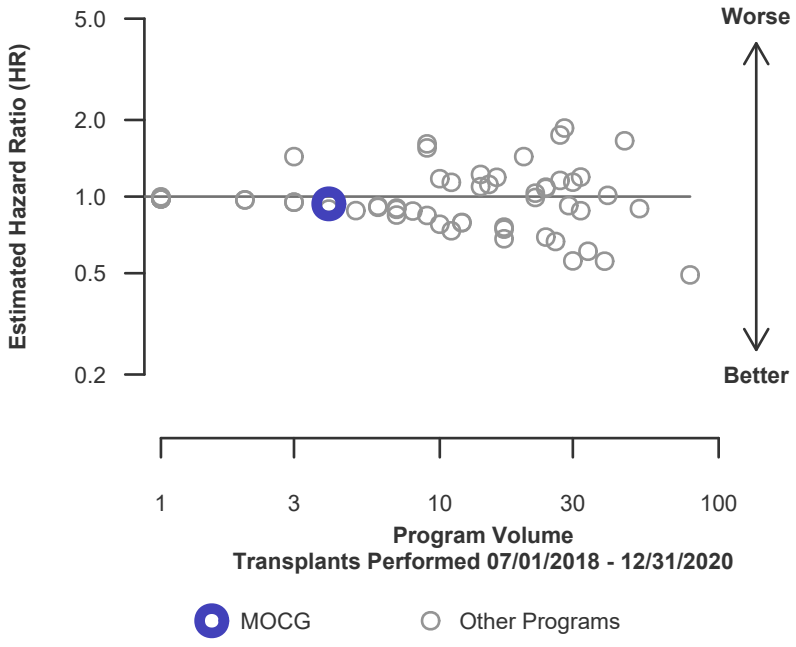


Figure C8D. Pediatric (<18) 1-month deceased donor graft failure HR program comparison



C. Transplant Information

Table C8L. Pediatric (<18) 1-month survival with a functioning living donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C7L. Pediatric (<18) 1-month living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C8L. Pediatric (<18) 1-month living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C9. Pediatric (<18) 1-year survival with a functioning graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,142
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	100.00%	92.01%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	93.52%	--
Number of observed graft failures (including deaths) during the first year after transplant	0	79
Number of expected graft failures (including deaths) during the first year after transplant	0.22	--
Estimated hazard ratio*	0.90	--
95% credible interval for the hazard ratio**	[0.11, 2.51]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.51], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 10% lower risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 151% increased risk.

Figure C9. Pediatric (<18) 1-year graft failure HR estimate

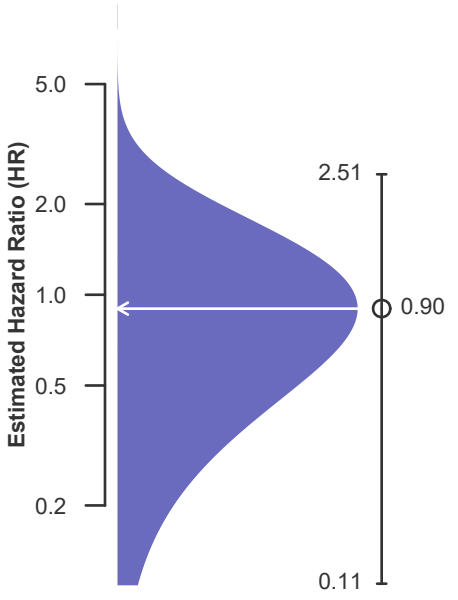
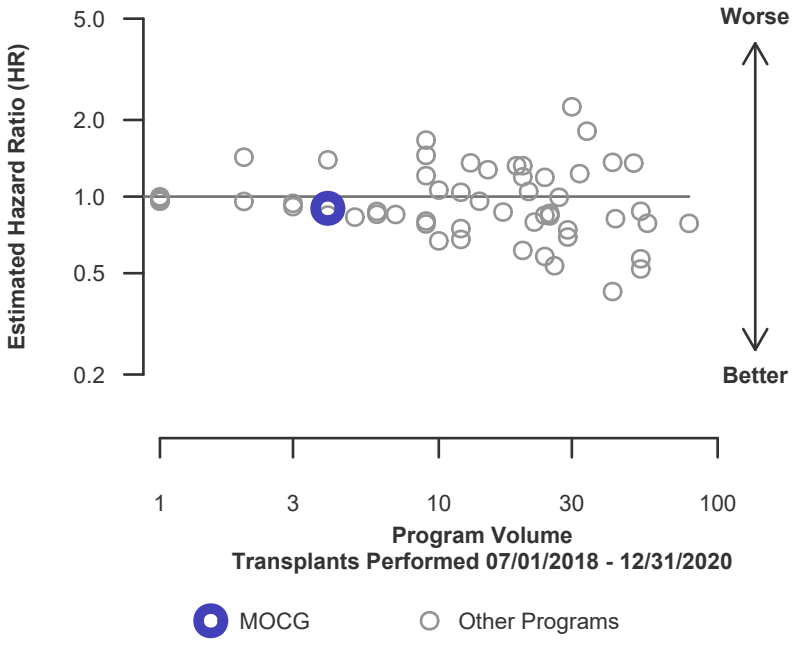


Figure C10. Pediatric (<18) 1-year graft failure HR program comparison



C. Transplant Information

Table C9D. Pediatric (<18) 1-year survival with a functioning deceased donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	970
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	100.00%	91.95%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	93.52%	--
Number of observed graft failures (including deaths) during the first year after transplant	0	70
Number of expected graft failures (including deaths) during the first year after transplant	0.22	--
Estimated hazard ratio*	0.90	--
95% credible interval for the hazard ratio**	[0.11, 2.51]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.51], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 10% lower risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 151% increased risk.

Figure C9D. Pediatric (<18) 1-year deceased donor graft failure HR estimate

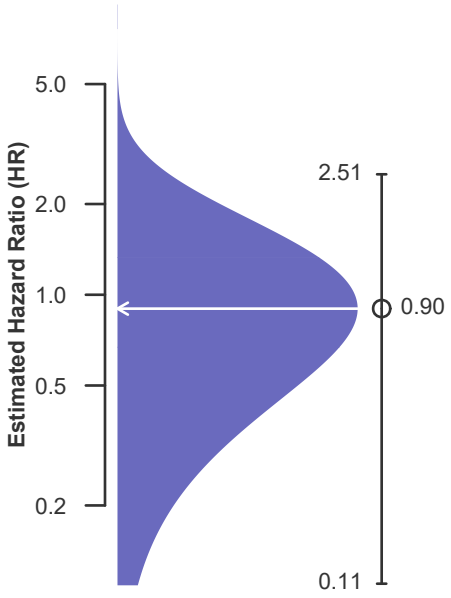
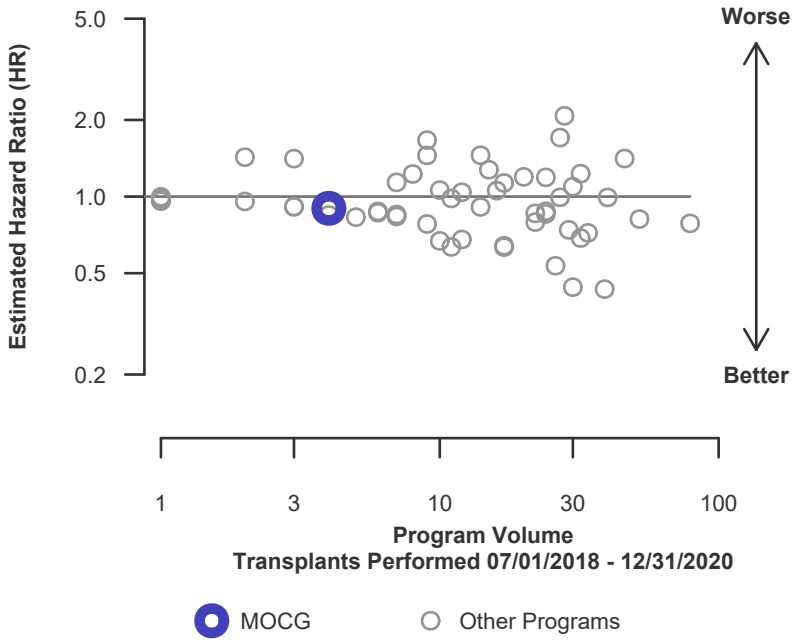


Figure C10D. Pediatric (<18) 1-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C9L. Pediatric (<18) 1-year survival with a functioning living donor graft

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C9L. Pediatric (<18) 1-year living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C10L. Pediatric (<18) 1-year living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C10. Pediatric (<18) 3-year survival with a functioning graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,378
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	50.00%	89.27%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	88.73%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	2	142
Number of expected graft failures (including deaths) during the first 3 years after transplant	0.32	--
Estimated hazard ratio*	1.72	--
95% credible interval for the hazard ratio**	[0.47, 3.78]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.47, 3.78], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 72% higher risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 53% reduced risk up to 278% increased risk.

Figure C11. Pediatric (<18) 3-year graft failure HR estimate

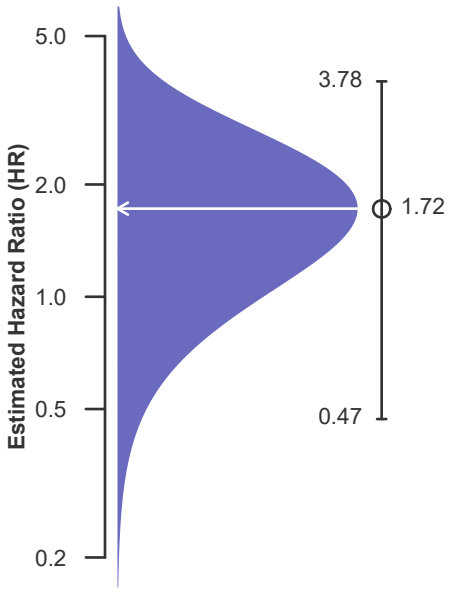
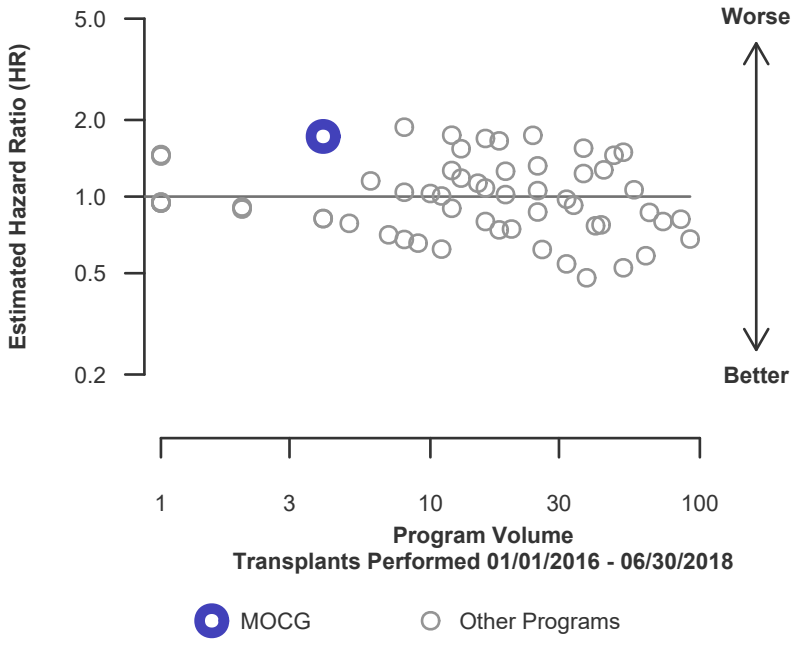


Figure C12. Pediatric (<18) 3-year graft failure HR program comparison



C. Transplant Information

Table C10D. Pediatric (<18) 3-year survival with a functioning deceased donor graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,214
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	50.00%	88.72%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	88.73%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	2	131
Number of expected graft failures (including deaths) during the first 3 years after transplant	0.32	--
Estimated hazard ratio*	1.72	--
95% credible interval for the hazard ratio**	[0.47, 3.78]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected graft failure rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.47, 3.78], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 72% higher risk of graft failure compared to an average program, but MOCG's performance could plausibly range from 53% reduced risk up to 278% increased risk.

Figure C11D. Pediatric (<18) 3-year deceased donor graft failure HR estimate

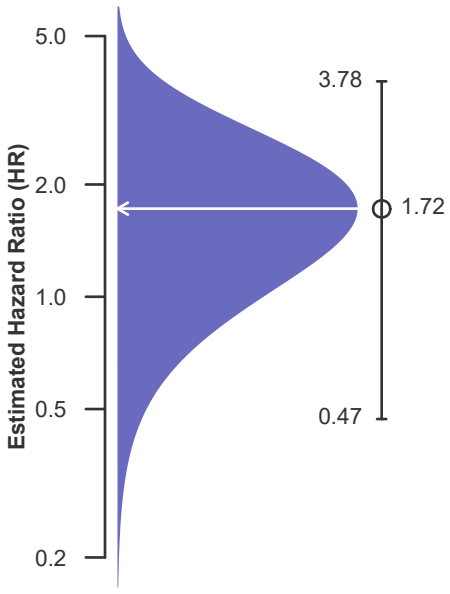
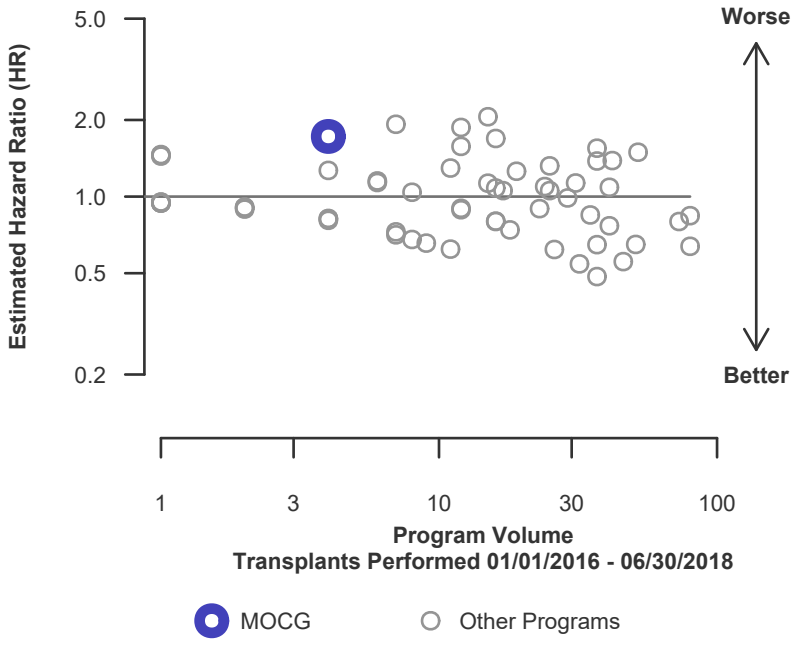


Figure C12D. Pediatric (<18) 3-year deceased donor graft failure HR program comparison



C. Transplant Information

Table C10L. Pediatric (<18) 3-year survival with a functioning living donor graft

Single organ transplants performed between 01/01/2016 and 06/30/2018
Deaths and retransplants are considered graft failures
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C11L. Pediatric (<18) 3-year living donor graft failure HR estimate

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C12L. Pediatric (<18) 3-year living donor graft failure HR program comparison

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C11. Adult (18+) 1-month patient survival

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C13. Adult (18+) 1-month patient death HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C14. Adult (18+) 1-month patient death HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C11D. Adult (18+) 1-month patient survival (deceased donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C13D. Adult (18+) 1-month patient death HR estimate (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C14D. Adult (18+) 1-month patient death HR program comparison (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C11L. Adult (18+) 1-month patient survival (living donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C13L. Adult (18+) 1-month patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C14L. Adult (18+) 1-month patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C12. Adult (18+) 1-year patient survival

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C15. Adult (18+) 1-year patient death HR estimate

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C16. Adult (18+) 1-year patient death HR program comparison

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C12D. Adult (18+) 1-year patient survival (deceased donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C15D. Adult (18+) 1-year patient death HR estimate (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C16D. Adult (18+) 1-year patient death HR program comparison (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C12L. Adult (18+) 1-year patient survival (living donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C15L. Adult (18+) 1-year patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C16L. Adult (18+) 1-year patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C13. Adult (18+) 3-year patient survival

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C17. Adult (18+) 3-year patient death HR estimate

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C18. Adult (18+) 3-year patient death HR program comparison

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C13D. Adult (18+) 3-year patient survival (deceased donor graft recipients)

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C17D. Adult (18+) 3-year patient death HR estimate (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C18D. Adult (18+) 3-year patient death HR program comparison (deceased donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C13L. Adult (18+) 3-year patient survival (living donor graft recipients)

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C17L. Adult (18+) 3-year patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C18L. Adult (18+) 3-year patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C14. Pediatric (<18) 1-month patient survival

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,066
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	100.00%	98.20%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	98.42%	--
Number of observed deaths during the first month after transplant	0	19
Number of expected deaths during the first month after transplant	0.06	--
Estimated hazard ratio*	0.97	--
95% credible interval for the hazard ratio**	[0.12, 2.70]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.12, 2.70], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 3% lower risk of patient death compared to an average program, but MOCG's performance could plausibly range from 88% reduced risk up to 170% increased risk.

Figure C19. Pediatric (<18) 1-month patient death HR estimate

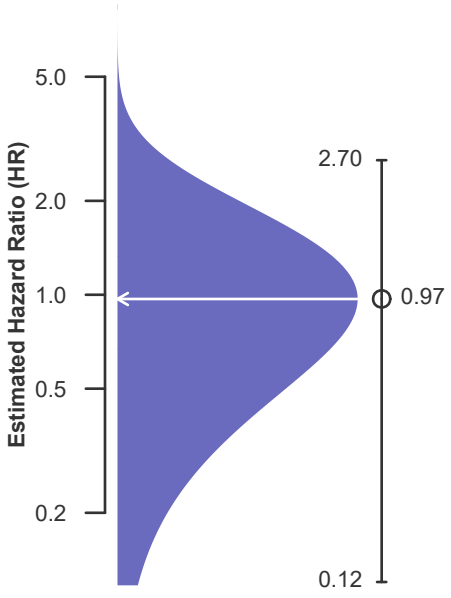
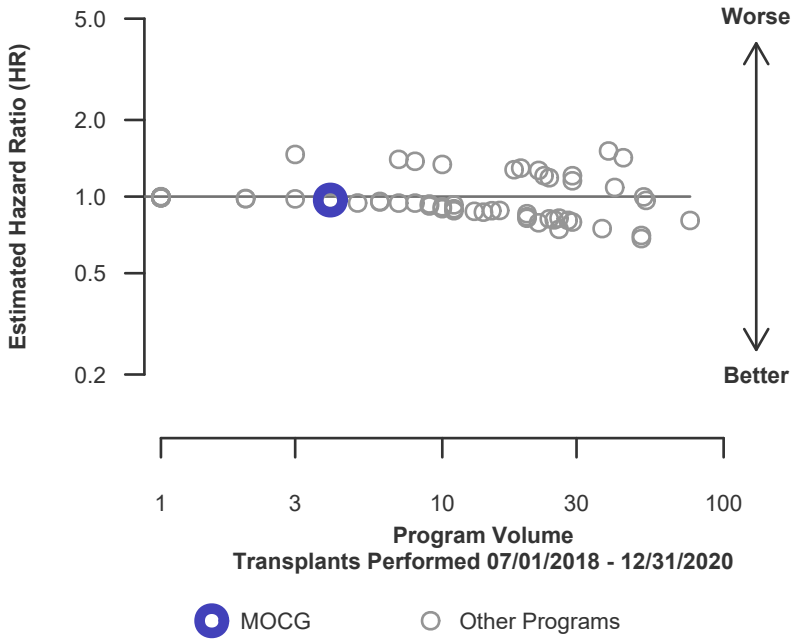


Figure C20. Pediatric (<18) 1-month patient death HR program comparison



C. Transplant Information

Table C14D. Pediatric (<18) 1-month patient survival (deceased donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	896
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	100.00%	98.09%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	98.42%	--
Number of observed deaths during the first month after transplant	0	17
Number of expected deaths during the first month after transplant	0.06	--
Estimated hazard ratio*	0.97	--
95% credible interval for the hazard ratio**	[0.12, 2.70]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.12, 2.70], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 3% lower risk of patient death compared to an average program, but MOCG's performance could plausibly range from 88% reduced risk up to 170% increased risk.

Figure C19D. Pediatric (<18) 1-month patient death HR estimate (deceased donor grafts)

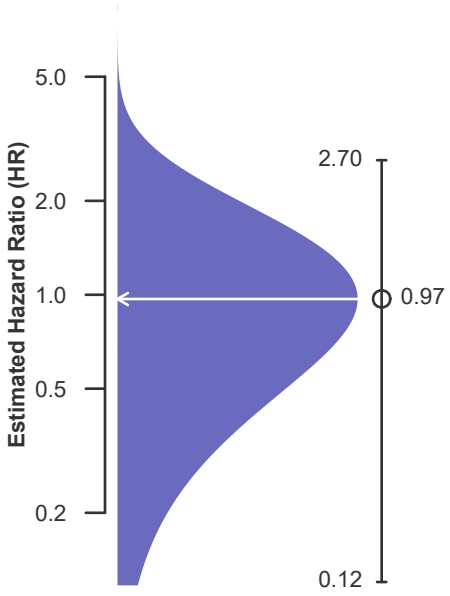
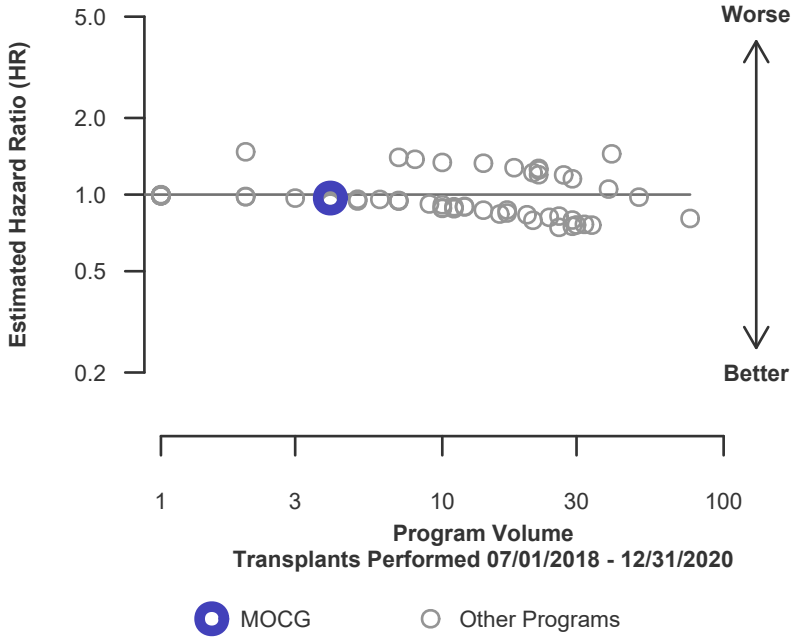


Figure C20D. Pediatric (<18) 1-month patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C14L. Pediatric (<18) 1-month patient survival (living donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C19L. Pediatric (<18) 1-month patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C20L. Pediatric (<18) 1-month patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C15. Pediatric (<18) 1-year patient survival

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	1,066
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	100.00%	94.99%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	95.37%	--
Number of observed deaths during the first year after transplant	0	44
Number of expected deaths during the first year after transplant	0.15	--
Estimated hazard ratio*	0.93	--
95% credible interval for the hazard ratio**	[0.11, 2.59]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.59], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 7% lower risk of patient death compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 159% increased risk.

Figure C21. Pediatric (<18) 1-year patient death HR estimate

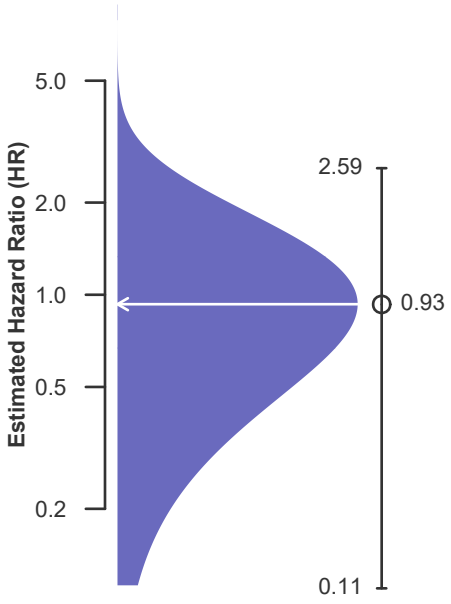
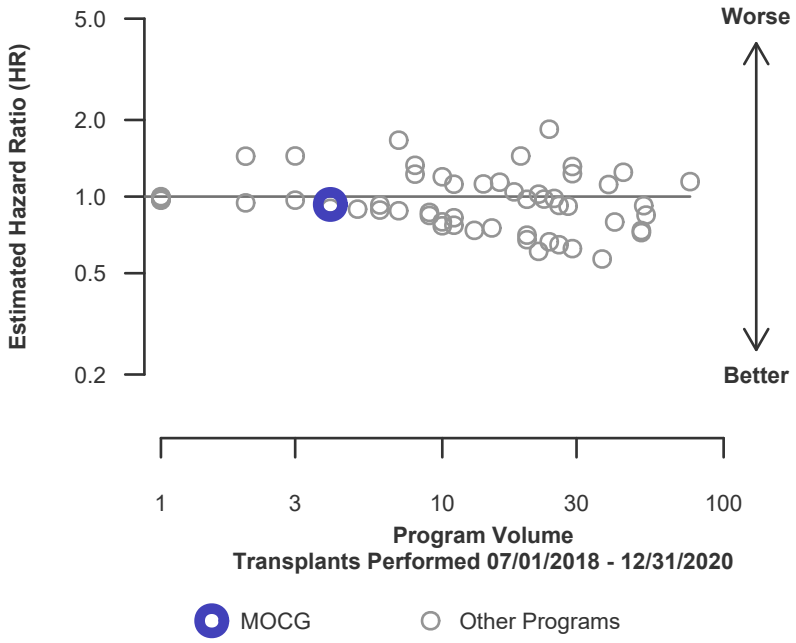


Figure C22. Pediatric (<18) 1-year patient death HR program comparison



C. Transplant Information

Table C15D. Pediatric (<18) 1-year patient survival (deceased donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	4	896
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	100.00%	94.90%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	95.37%	--
Number of observed deaths during the first year after transplant	0	39
Number of expected deaths during the first year after transplant	0.15	--
Estimated hazard ratio*	0.93	--
95% credible interval for the hazard ratio**	[0.11, 2.59]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.11, 2.59], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 7% lower risk of patient death compared to an average program, but MOCG's performance could plausibly range from 89% reduced risk up to 159% increased risk.

Figure C21D. Pediatric (<18) 1-year patient death HR estimate (deceased donor grafts)

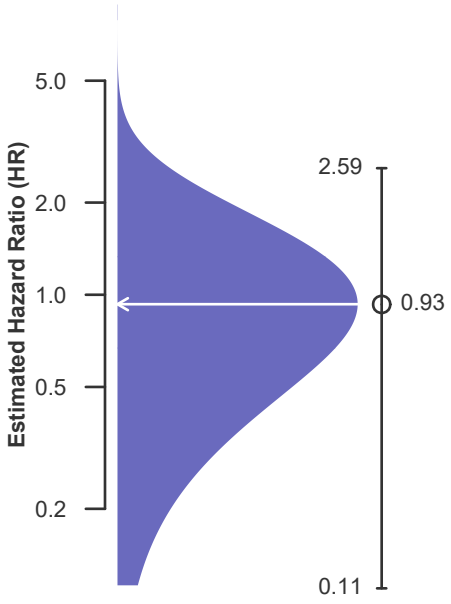
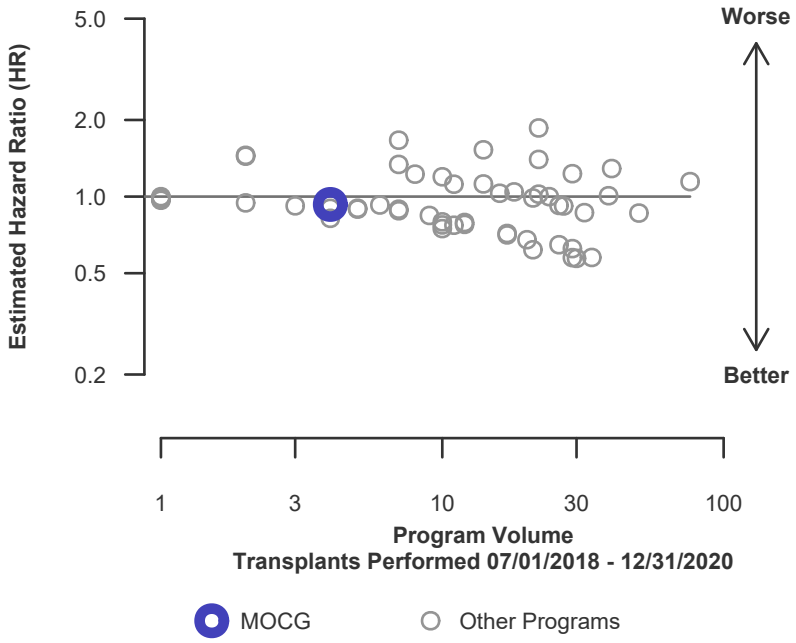


Figure C22D. Pediatric (<18) 1-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C15L. Pediatric (<18) 1-year patient survival (living donor graft recipients)

Single organ transplants performed between 07/01/2018 and 03/12/2020, and 06/13/2020 and 12/31/2020
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 07/01/2018-12/31/2020

Figure C21L. Pediatric (<18) 1-year patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

Figure C22L. Pediatric (<18) 1-year patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 07/01/2018-12/31/2020

C. Transplant Information

Table C16. Pediatric (<18) 3-year patient survival

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	3	1,294
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	66.67%	92.91%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	92.50%	--
Number of observed deaths during the first 3 years after transplant	1	87
Number of expected deaths during the first 3 years after transplant	0.18	--
Estimated hazard ratio*	1.37	--
95% credible interval for the hazard ratio**	[0.28, 3.31]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.28, 3.31], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 37% higher risk of patient death compared to an average program, but MOCG's performance could plausibly range from 72% reduced risk up to 231% increased risk.

Figure C23. Pediatric (<18) 3-year patient death HR estimate

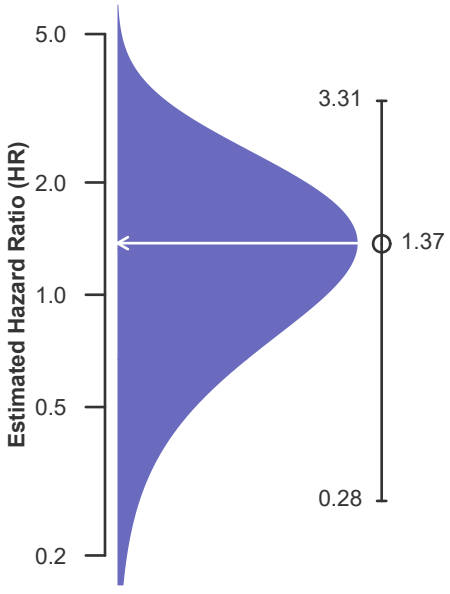
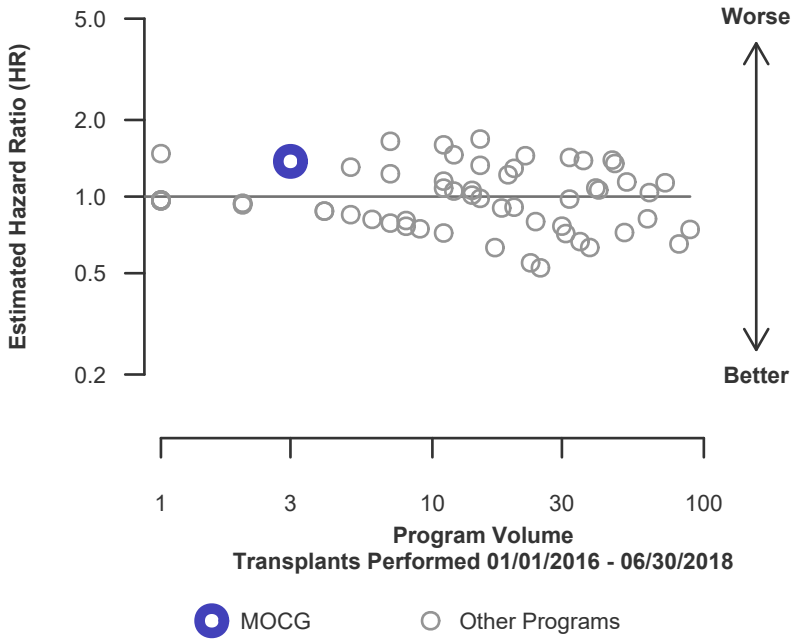


Figure C24. Pediatric (<18) 3-year patient death HR program comparison



C. Transplant Information

Table C16D. Pediatric (<18) 3-year patient survival (deceased donor graft recipients)

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

	MOCG	U.S.
Number of transplants evaluated	3	1,131
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	66.67%	92.50%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	92.50%	--
Number of observed deaths during the first 3 years after transplant	1	80
Number of expected deaths during the first 3 years after transplant	0.18	--
Estimated hazard ratio*	1.37	--
95% credible interval for the hazard ratio**	[0.28, 3.31]	--

* The hazard ratio provides an estimate of how Cardinal Glennon Children's Hospital's results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would indicate 50% higher risk), and a ratio below 1 indicates lower than expected patient death rates (e.g., a hazard ratio of 0.75 would indicate 25% lower risk). If MOCG's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.
** The 95% credible interval, [0.28, 3.31], indicates the location of MOCG's true hazard ratio with 95% probability. The best estimate is 37% higher risk of patient death compared to an average program, but MOCG's performance could plausibly range from 72% reduced risk up to 231% increased risk.

Figure C23D. Pediatric (<18) 3-year patient death HR estimate (deceased donor grafts)

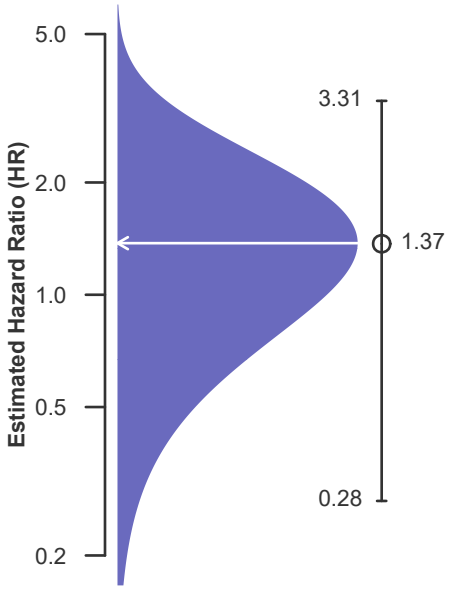
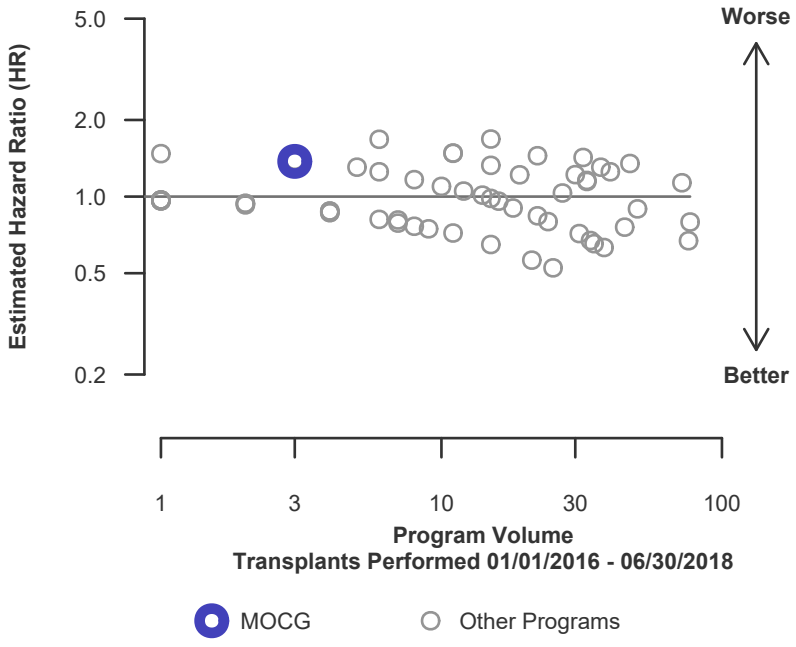


Figure C24D. Pediatric (<18) 3-year patient death HR program comparison (deceased donor grafts)



C. Transplant Information

Table C16L. Pediatric (<18) 3-year patient survival (living donor graft recipients)

Single organ transplants performed between 01/01/2016 and 06/30/2018
Retransplants excluded
Follow-up ends on 3/12/2020 for recipients transplanted prior to 3/13/2020

This center did not perform any transplants relevant to this table during 01/01/2016-06/30/2018

Figure C23L. Pediatric (<18) 3-year patient death HR estimate (living donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

Figure C24L. Pediatric (<18) 3-year patient death HR program comparison (living donor grafts)

This center did not perform any transplants relevant to this figure during 01/01/2016-06/30/2018

C. Transplant Information

Table C17. Multi-organ transplant graft survival: 07/01/2018 - 12/31/2020

Adult (18+) Transplants

No adult (18+) multi-organ transplants were performed

Pediatric (<18) Transplants

No pediatric (<18) multi-organ transplants were performed

Table C18. Multi-organ transplant patient survival: 07/01/2018 - 12/31/2020

Adult (18+) Transplants

No adult (18+) multi-organ transplants were performed

Pediatric (<18) Transplants

No pediatric (<18) multi-organ transplants were performed

D. Living Donor Information

Table D1. Living donor summary: 07/01/2018 - 06/30/2021

Living Donor Follow-Up	This Center			United States		
	07/2018-06/2019	07/2019-06/2020	07/2020-12/2020	07/2018-06/2019	07/2019-06/2020	07/2020-12/2020
Number of Living Donors	--	--	--	--	--	--
6-Month Follow-Up						
Donors due for follow-up	--	--	--	--	--	--
Timely clinical data	-- --%	-- --%	-- --%	-- --%	-- --%	-- --%
Timely lab data	-- --%	-- --%	-- --%	-- --%	-- --%	-- --%
12-Month Follow-Up						
Donors due for follow-up	--	--		--	--	
Timely clinical data	-- --%	-- --%		-- --%	-- --%	
Timely lab data	-- --%	-- --%		-- --%	-- --%	
24-Month Follow-Up						
Donors due for follow-up	--			--		
Timely clinical data	-- --%			-- --%		
Timely lab data	-- --%			-- --%		

Follow-up forms due during the COVID-19 amnesty period from 3/13/2020-3/31/2021 are not included in timely clinical and lab data calculations