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## User Guide

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This report contains a wide range of useful information about the liver transplant program at Banner-University Medical Center Phoenix (AZGS). 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 181.2 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 death rate (also known as the 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 these tables and figures is to describe risk of death once candidates are listed rather than while they are listed. 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>.

Table B6 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 B7 and B8 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 B7 and B8 presents the percent of candidates who received a deceased donor transplant by each time point. Table B9 presents data on the time it took for different percentages of patients to be transplanted for candidates added to the list between 01/01/2013 and 06/30/2018. The time it took for 5% (the 5th percentile) of patients to receive a transplant at this program was 0.1 months. If "Not Observed" is displayed in the table, then too few candidates received transplants before 12/31/2018 to calculate a particular percentile of transplant times.

Table B10 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 B7 shows the distribution of program offer acceptance rates as well as the offer acceptance rate for this program. Figures B8 - B12 similarly show offer acceptance rates for subsets 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.



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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](mailto:srtr@srtr.org).



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## A. Program Summary

Figure A1. Waiting list and transplant activity

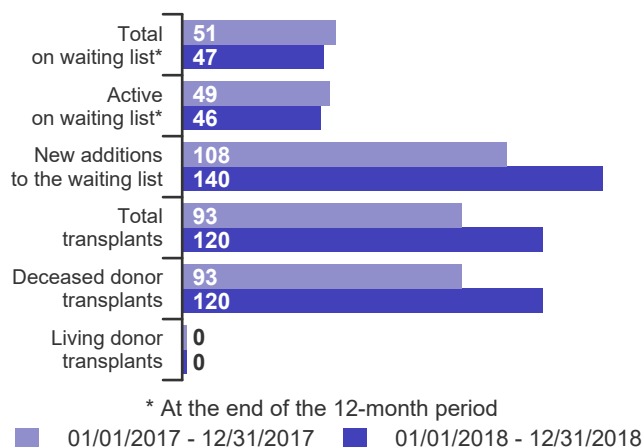


Table A1. Census of transplant recipients

Recipients	01/01/2017-12/31/2017	01/01/2018-12/31/2018
Transplanted at this center	93	120
Followed by this center*	448	486
...transplanted at this program	420	453
...transplanted elsewhere	28	33

\* 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  
01/01/2017 - 12/31/2018

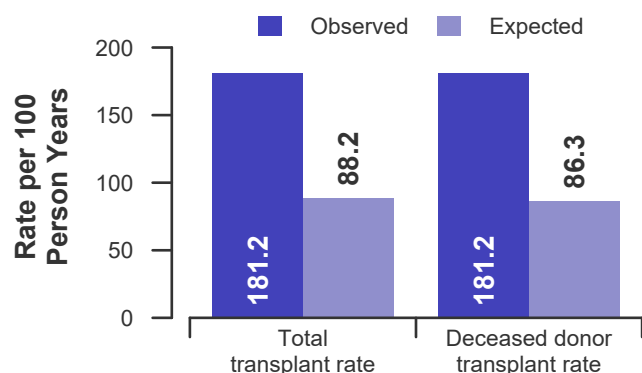


Figure A3. Waiting list mortality rates  
01/01/2017 - 12/31/2018

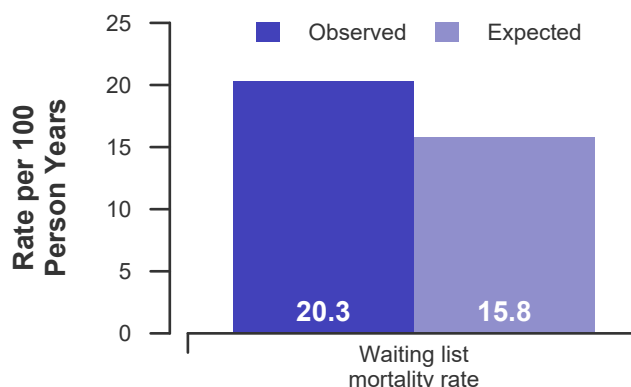


Figure A4. First-year adult graft and patient survival: 01/01/2016 - 06/30/2018

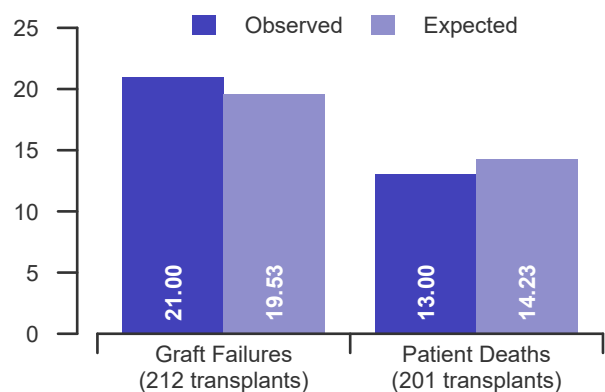


Figure A5. First-year pediatric graft and patient survival: 01/01/2016 - 06/30/2018

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



## B. Waiting List Information

Table B1. Waiting list activity summary: 01/01/2017 - 12/31/2018

Waiting List Registrations	Counts for this center		Activity for 01/01/2018 to 12/31/2018 as percent of registrants on waiting list on 01/01/2018		
	01/01/2017- 12/31/2017	01/01/2018- 12/31/2018	This Center (%)	OPTN Region (%)	U.S. (%)
<b>On waiting list at start</b>	80	51	100.0	100.0	100.0
<b>Additions</b>					
New listings at this center	108	140	274.5	73.0	92.6
<b>Removals</b>					
Transferred to another center	2	1	2.0	1.1	1.1
Received living donor transplant*	0	0	0.0	1.6	2.8
Received deceased donor transplant*	93	120	235.3	42.8	55.3
Died	10	5	9.8	6.6	8.3
Transplanted at another center	1	0	0.0	1.8	2.8
Deteriorated	16	9	17.6	7.9	9.5
Recovered	5	7	13.7	6.0	7.5
Other reasons	10	2	3.9	7.0	9.1
<b>On waiting list at end of period</b>	51	47	92.2	98.2	96.4

\* 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 01/01/2018 and 12/31/2018**

Demographic Characteristic	New Waiting List Registrations 01/01/2018 to 12/31/2018 (%)			All Waiting List Registrations on 12/31/2018 (%)		
	This Center (N=140)	OPTN Region (N=2,124)	U.S. (N=13,152)	This Center (N=47)	OPTN Region (N=2,858)	U.S. (N=13,680)
<b>All (%)</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Ethnicity/Race (%)*</b>						
White	47.1	48.3	68.1	53.2	47.6	67.0
African-American	2.1	3.2	7.9	4.3	3.7	7.4
Hispanic/Latino	32.1	34.3	17.1	23.4	34.6	18.3
Asian	3.6	10.6	5.1	4.3	11.7	5.8
Other	15.0	3.6	1.8	14.9	2.4	1.5
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
<b>Age (%)</b>						
<2 years	0.0	4.0	2.6	0.0	1.6	1.4
2-11 years	0.0	2.3	1.9	0.0	1.6	1.3
12-17 years	0.0	1.3	1.1	0.0	1.3	1.0
18-34 years	6.4	5.4	6.0	6.4	6.2	6.2
35-49 years	16.4	16.1	17.0	17.0	18.6	18.7
50-64 years	59.3	49.5	49.9	61.7	54.2	54.0
65+ years	17.9	21.4	21.5	14.9	16.6	17.3
Other (includes prenatal)	0.0	0.0	0.0	0.0	0.0	0.0
<b>Gender (%)</b>						
Male	57.9	59.7	62.2	59.6	58.1	60.8
Female	42.1	40.3	37.8	40.4	41.9	39.2

\* 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 01/01/2018 and 12/31/2018

Medical Characteristic	New Waiting List Registrations 01/01/2018 to 12/31/2018 (%)			All Waiting List Registrations on 12/31/2018 (%)		
	This Center (N=140)	OPTN Region (N=2,124)	U.S. (N=13,152)	This Center (N=47)	OPTN Region (N=2,858)	U.S. (N=13,680)
<b>All (%)</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>Blood Type (%)</b>						
O	47.9	49.4	46.9	61.7	50.6	49.1
A	38.6	33.6	36.9	27.7	34.1	37.7
B	10.0	12.6	12.4	8.5	12.2	10.9
AB	3.6	4.5	3.8	2.1	3.1	2.4
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
<b>Previous Transplant (%)</b>						
Yes	5.7	5.1	4.5	2.1	3.3	3.2
No	94.3	94.9	95.5	97.9	96.7	96.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.0
<b>Primary Disease (%)</b>						
Acute Hepatic Necrosis	6.4	6.1	4.5	2.1	2.3	1.8
Non-Cholestatic Cirrhosis	67.1	65.3	65.4	68.1	72.5	71.2
Cholestatic Liver Disease/Cirrhosis	3.6	6.2	6.9	6.4	6.3	7.8
Biliary Atresia	0.0	3.0	2.4	0.0	2.3	1.8
Metabolic Diseases	0.7	2.4	2.5	0.0	1.3	1.8
Malignant Neoplasms	22.1	12.0	13.1	23.4	8.6	10.2
Other	0.0	5.1	5.2	0.0	6.5	5.3
Missing	0.0	0.0	0.1	0.0	0.1	0.1
<b>Medical Urgency Status/MELD/PELD at Listing (%)*</b>						
Status 1A	2.1	4.3	3.2	0.0	0.6	0.3
Status 1B	0.0	0.6	0.4	0.0	0.1	0.1
Status 2A	0.0	0.0	0.0	0.0	0.0	0.0
Status 2B	0.0	0.0	0.0	0.0	0.1	0.1
Status 3	0.0	0.0	0.0	0.0	1.3	0.7
MELD 6-10	15.7	20.2	19.9	29.8	28.7	29.7
MELD 11-14	12.1	18.3	18.8	19.1	26.7	29.0
MELD 15-20	20.7	17.7	22.6	25.5	22.0	24.7
MELD 21-30	22.1	15.1	17.0	21.3	8.6	8.4
MELD 31-40	27.1	14.8	10.9	4.3	1.0	0.8
PELD less than or equal to 10	0.0	2.7	2.1	0.0	2.2	1.9
PELD 11-14	0.0	0.1	0.3	0.0	0.1	0.2
PELD 15-20	0.0	0.8	0.6	0.0	0.2	0.2
PELD 21-30	0.0	0.3	0.4	0.0	0.1	0.1
PELD 31 or greater	0.0	0.3	0.1	0.0	0.0	0.0
Temporarily Inactive	0.0	4.6	3.8	0.0	8.1	3.9

\* 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

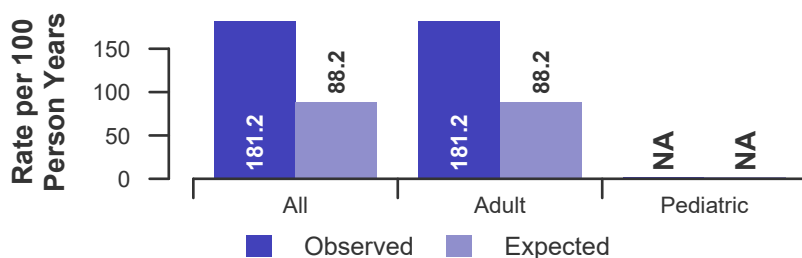
**Table B4. Transplant rates: 01/01/2017 - 12/31/2018**

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
<b>All Candidates</b>				
Count on waiting list at start*	80	243	3,158	14,684
Person Years**	117.6	408.9	5,885.5	28,486.6
Removals for Transplant	213	537	2,528	16,332
<b>Adult (18+) Candidates</b>				
Count on waiting list at start*	80	238	3,044	14,113
Person Years**	117.6	397.2	5,642.7	27,396.5
Removals for transplant	213	522	2,304	15,145
<b>Pediatric (&lt;18) Candidates</b>				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Removals for transplant	--	--	--	--

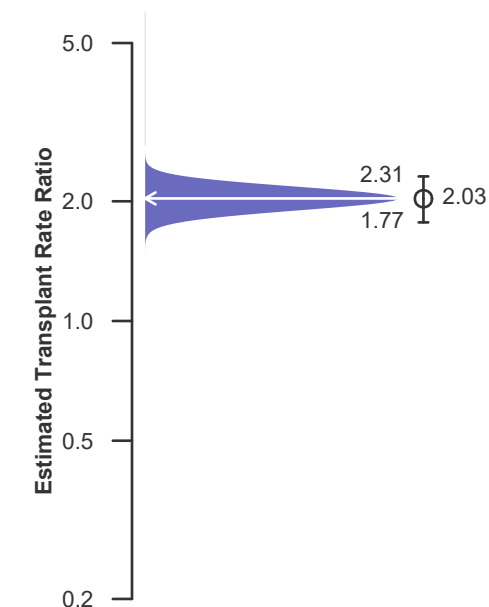
\* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of 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 January 1 or from the date of first wait listing until death, transplant, removal from the waiting list or December 31.

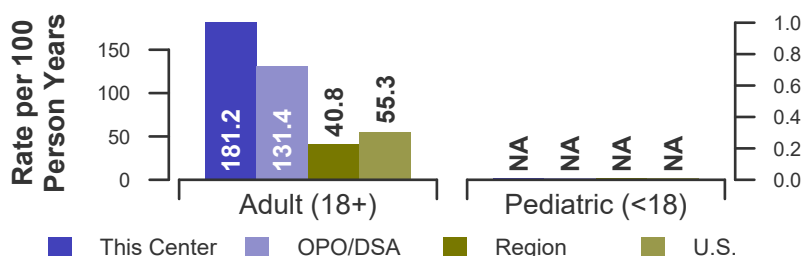
**Figure B1. Observed and expected transplant rates: 01/01/2017 - 12/31/2018**



**Figure B2. Transplant rate ratio estimate**



**Figure B3. Observed adult (18+) and pediatric (<18) transplant rates: 01/01/2017 - 12/31/2018**





## B. Waiting List Information

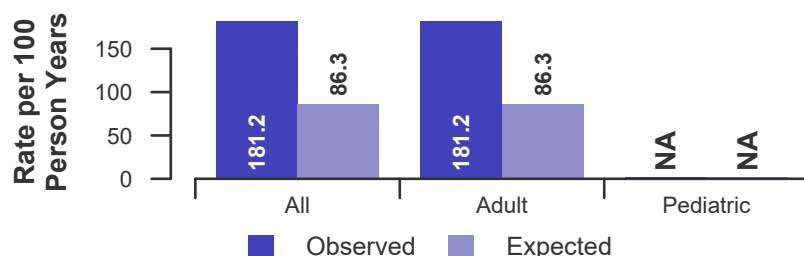
**Table B4D. Deceased donor transplant rates: 01/01/2017 - 12/31/2018**

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
<b>All Candidates</b>				
Count on waiting list at start*	80	243	3,158	14,684
Person Years**	117.6	408.9	5,885.5	28,486.6
Removals for Transplant	213	536	2,424	15,565
<b>Adult (18+) Candidates</b>				
Count on waiting list at start*	80	238	3,044	14,113
Person Years**	117.6	397.2	5,642.7	27,396.5
Removals for transplant	213	521	2,216	14,513
<b>Pediatric (&lt;18) Candidates</b>				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Removals for transplant	--	--	--	--

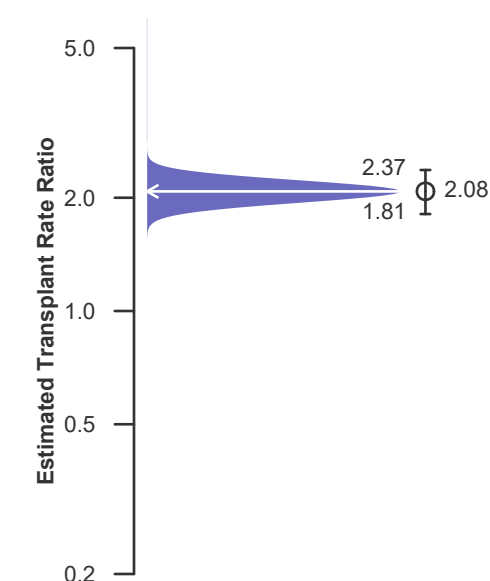
\* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of 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 January 1 or from the date of first wait listing until death, transplant, removal from the waiting list or December 31.

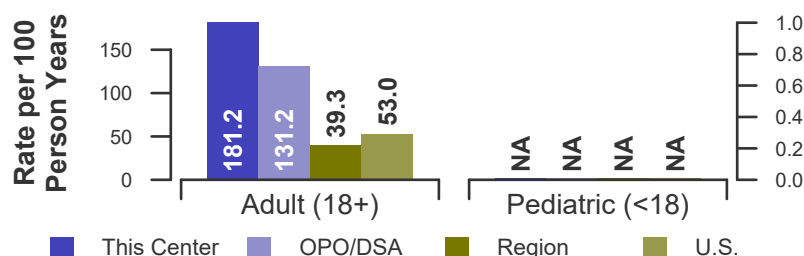
**Figure B1D. Observed and expected deceased donor transplant rates: 01/01/2017 - 12/31/2018**



**Figure B2D. Deceased donor transplant rate ratio estimate**



**Figure B3D. Observed adult (18+) and pediatric (<18) deceased donor transplant rates: 01/01/2017 - 12/31/2018**





## B. Waiting List Information

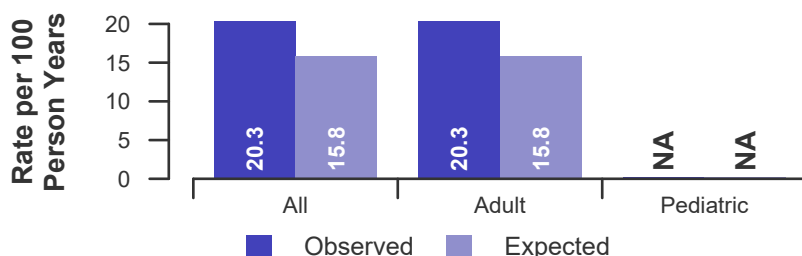
**Table B5. Waiting list mortality rates: 01/01/2017 - 12/31/2018**

Waiting List Registrations	This Center	OPO/DSA	Region	U.S.
<b>All Candidates</b>				
Count on waiting list at start*	80	243	3,158	14,684
Person Years**	147.9	490.6	6,675.0	32,609.4
Number of deaths	30	60	686	3,958
<b>Adult (18+) Candidates</b>				
Count on waiting list at start*	80	238	3,044	14,113
Person Years**	147.9	474.1	6,419.2	31,432.0
Number of deaths	30	58	665	3,888
<b>Pediatric (&lt;18) Candidates</b>				
Count on waiting list at start*	--	--	--	--
Person Years**	--	--	--	--
Number of deaths	--	--	--	--

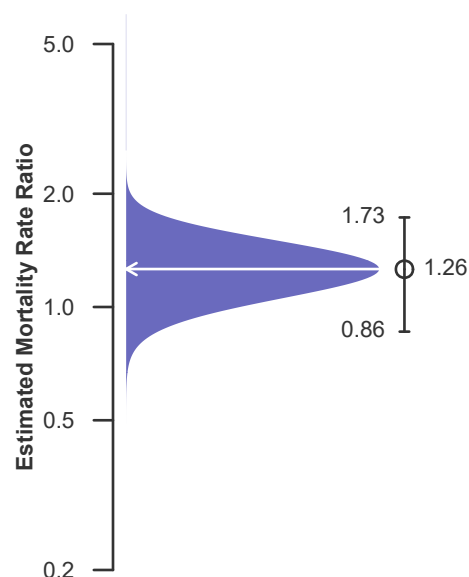
\* Counts in this table may be lower than similar counts in other waiting list tables, such as Table B1. A small percentage (~1%) of patients are found to have died or been transplanted before being removed from the waiting list, so these patients are excluded if the event occurs prior to the start of 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 January 1 or from the date of first wait listing until death, transplant, 60 days after recovery, transfer or December 31.

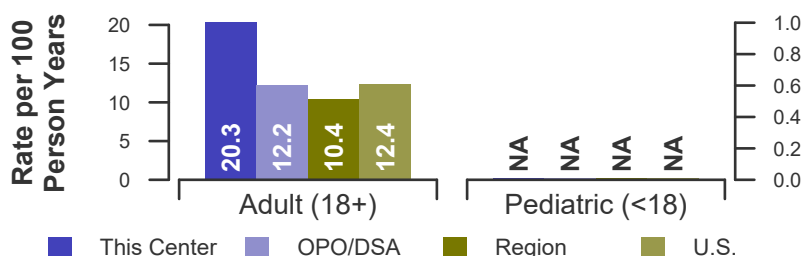
**Figure B4. Observed and expected waiting list mortality rates: 01/01/2017 - 12/31/2018**



**Figure B5. Waiting list mortality rate ratio estimate**



**Figure B6. Observed adult (18+) and pediatric (<18) waiting list mortality rates: 01/01/2017 - 12/31/2018**





## B. Waiting List Information

**Table B6. Waiting list candidate status after listing****Candidates registered on waiting list between 07/01/2016 and 06/30/2017**

Waiting list status (survival status)	This Center (N=119)			U.S. (N=13,000)		
	Months Since Listing			Months Since Listing		
	6	12	18	6	12	18
<b>Alive on waiting list (%)</b>	38.7	8.4	4.2	48.3	28.2	18.7
<b>Died on the waiting list without transplant (%)</b>	5.0	5.0	5.0	4.6	6.2	6.8
<b>Removed without transplant (%):</b>						
Condition worsened (status unknown)	9.2	12.6	12.6	4.4	6.6	7.7
Condition improved (status unknown)	0.8	0.8	1.7	1.0	1.7	2.4
Refused transplant (status unknown)	0.0	0.0	0.0	0.2	0.4	0.6
Other	2.5	3.4	3.4	1.5	3.1	4.3
<b>Transplant (living donor from waiting list only) (%):</b>						
Functioning (alive)	0.0	0.0	0.0	1.8	2.2	1.6
Failed-Retransplanted (alive)	0.0	0.0	0.0	0.1	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	0.1	0.1	0.1
Status Yet Unknown**	0.0	0.0	0.0	0.0	0.1	0.8
<b>Transplant (deceased donor) (%):</b>						
Functioning (alive)	37.8	56.3	46.2	33.7	42.2	33.7
Failed-Retransplanted (alive)	1.7	2.5	2.5	0.3	0.4	0.6
Failed-alive not retransplanted	0.0	0.0	0.0	0.0	0.0	0.0
Died	2.5	5.0	5.0	2.1	3.3	4.1
Status Yet Unknown*	0.0	4.2	16.8	1.7	4.8	17.7
<b>Lost or Transferred (status unknown) (%)</b>	1.7	1.7	2.5	0.3	0.6	0.8
<b>TOTAL (%)</b>	100.0	100.0	100.0	100.0	100.0	100.0
Total % known died on waiting list or after transplant	7.6	10.1	10.1	6.7	9.6	11.1
Total % known died or removed as unstable	16.8	22.7	22.7	11.1	16.2	18.8
Total % removed for transplant	42.0	68.1	70.6	39.6	53.2	58.7
Total % with known functioning transplant (alive)	37.8	56.3	46.2	35.5	44.4	35.3

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



## B. Waiting List Information

**Table B6S1. Medical urgency status 1 candidate status after listing**

Candidates registered on the waiting list between 07/01/2016 and 06/30/2017

Waiting list status (survival status)	This Center (N=6)			U.S. (N=434)		
	Months Since listing			Months Since listing		
	6	12	18	6	12	18
<b>Alive on waiting list (%)</b>	0.0	0.0	0.0	3.7	1.8	1.4
<b>Died on the waiting list without transplant (%)</b>	0.0	0.0	0.0	6.2	6.2	6.2
<b>Removed without transplant (%):</b>						
Condition worsened (status unknown)	0.0	0.0	0.0	6.5	6.5	6.5
Condition improved (status unknown)	16.7	16.7	16.7	16.1	17.3	17.5
Refused transplant (status unknown)	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	1.2	1.4	1.6
<b>Transplant (living donor from waiting list only) (%):</b>						
Functioning (alive)	0.0	0.0	0.0	1.4	1.4	1.2
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	0.2	0.2	0.2
Status Yet Unknown**	0.0	0.0	0.0	0.0	0.0	0.2
<b>Transplant (deceased donor) (%):</b>						
Functioning (alive)	50.0	33.3	16.7	55.5	49.5	36.4
Failed-Retransplanted (alive)	16.7	16.7	16.7	1.2	1.2	1.2
Failed-alive not retransplanted	0.0	0.0	0.0	0.2	0.0	0.0
Died	16.7	16.7	16.7	6.9	8.5	9.0
Status Yet Unknown*	0.0	16.7	33.3	0.5	5.3	18.0
<b>Lost or Transferred (status unknown) (%)</b>	0.0	0.0	0.0	0.5	0.7	0.7
<b>TOTAL (%)</b>	100.0	100.0	100.0	100.0	100.0	100.0
Total % known died on waiting list or after transplant	16.7	16.7	16.7	13.4	15.0	15.4
Total % known died or removed as unstable	16.7	16.7	16.7	19.8	21.4	21.9
Total % removed for transplant	83.3	83.3	83.3	65.9	66.1	66.1
Total % with known functioning transplant (alive)	50.0	33.3	16.7	56.9	50.9	37.6

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



## B. Waiting List Information

**Table B7. Percent of candidates with deceased donor transplants: demographic characteristics**  
Candidates registered on the waiting list between 01/01/2013 and 12/31/2015

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
<b>All</b>	251	15.1	35.9	49.8	51.4	35,110	16.9	44.1	52.0	53.9
<b>Ethnicity/Race*</b>										
White	135	11.1	31.9	46.7	49.6	24,068	16.6	44.7	52.1	54.0
African-American	14	28.6	50.0	57.1	57.1	3,467	20.9	49.4	57.0	59.0
Hispanic/Latino	69	18.8	40.6	56.5	56.5	5,385	16.3	39.6	48.2	50.3
Asian	11	18.2	45.5	54.5	54.5	1,710	15.5	40.3	51.6	53.8
Other	22	18.2	31.8	40.9	40.9	480	18.1	44.0	52.9	54.8
Unknown	0	--	--	--	--	0	--	--	--	--
<b>Age</b>										
<2 years	0	--	--	--	--	864	24.3	69.9	75.2	76.4
2-11 years	0	--	--	--	--	706	26.6	67.6	73.4	74.5
12-17 years	0	--	--	--	--	438	21.7	55.3	64.6	67.1
18-34 years	15	26.7	40.0	40.0	46.7	1,871	26.1	47.8	53.5	56.0
35-49 years	30	23.3	43.3	50.0	50.0	5,407	23.2	45.6	51.7	53.7
50-64 years	176	14.8	36.4	51.1	52.8	20,147	14.8	42.2	50.7	52.8
65+ years	30	3.3	23.3	46.7	46.7	5,677	12.7	40.5	49.0	50.4
Other (includes prenatal)	0	--	--	--	--	0	--	--	--	--
<b>Gender</b>										
Male	167	15.0	38.9	55.7	58.1	22,377	16.5	45.1	53.4	55.3
Female	84	15.5	29.8	38.1	38.1	12,733	17.7	42.4	49.4	51.4

\* 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%.



## B. Waiting List Information

**Table B8. Percent of candidates with deceased donor transplants: medical characteristics**  
Candidates registered on the waiting list between 01/01/2013 and 12/31/2015

Characteristic	N	Percent transplanted at time periods since listing This Center					N	United States				
		30 day	1 year	2 years	3 years			30 day	1 year	2 years	3 years	
<b>All</b>	251	15.1	35.9	49.8	51.4		35,110	16.9	44.1	52.0	53.9	
<b>Blood Type</b>												
O	135	11.1	22.2	43.0	43.0		16,283	17.0	42.3	50.0	52.1	
A	85	18.8	47.1	54.1	56.5		13,014	15.1	42.1	50.7	52.5	
B	28	17.9	60.7	64.3	71.4		4,502	18.7	50.5	57.5	59.6	
AB	3	66.7	100.0	100.0	100.0		1,311	27.9	65.6	70.2	71.5	
<b>Previous Transplant</b>												
Yes	12	25.0	58.3	58.3	58.3		2,003	27.4	49.7	54.0	55.6	
No	239	14.6	34.7	49.4	51.0		33,107	16.3	43.8	51.8	53.8	
<b>Primary Disease</b>												
Acute Hepatic Necrosis	5	40.0	40.0	40.0	40.0		1,406	47.7	55.9	58.0	58.7	
Non-Cholestatic Cirrhosis	137	19.0	35.0	41.6	42.3		23,745	16.4	41.5	48.5	50.4	
Cholestatic Liver Disease/Cirrhosis	12	25.0	33.3	33.3	41.7		2,399	14.7	44.5	52.7	56.5	
Biliary Atresia	1	0.0	100.0	100.0	100.0		699	15.7	65.2	73.2	74.7	
Metabolic Diseases	0	--	--	--	--		833	21.4	62.5	68.8	70.3	
Malignant Neoplasms	89	5.6	37.1	66.3	68.5		4,159	9.4	47.2	61.5	63.2	
Other	7	28.6	28.6	28.6	28.6		1,855	19.3	45.7	53.6	56.2	
Missing	0	--	--	--	--		14	7.1	14.3	14.3	14.3	
<b>Medical Urgency Status/MELD/PELD at Listing*</b>												
Status 1	0	--	--	--	--		0	--	--	--	--	
Status 1A	10	50.0	50.0	50.0	50.0		1,187	60.9	61.4	61.4	61.4	
Status 1B	0	--	--	--	--		145	53.1	81.4	81.4	81.4	
Status 2A	0	--	--	--	--		0	--	--	--	--	
Status 2B	0	--	--	--	--		0	--	--	--	--	
Status 3	0	--	--	--	--		0	--	--	--	--	
MELD 6-10	52	0.0	28.8	69.2	73.1		7,003	3.6	34.7	48.8	51.3	
MELD 11-14	41	2.4	29.3	43.9	46.3		6,642	3.0	28.8	39.4	42.7	
MELD 15-20	52	1.9	23.1	32.7	32.7		8,028	6.5	38.1	46.6	49.2	
MELD 21-30	42	9.5	35.7	42.9	45.2		5,911	25.0	56.8	59.6	60.4	
MELD 31-40	54	50.0	57.4	57.4	57.4		3,730	65.2	71.9	72.1	72.1	
PELD less than or equal to 10	0	--	--	--	--		674	9.5	65.3	74.5	76.3	
PELD 11-14	0	--	--	--	--		114	17.5	69.3	77.2	77.2	
PELD 15-20	0	--	--	--	--		174	14.9	75.3	79.9	82.2	
PELD 21-30	0	--	--	--	--		150	22.7	73.3	76.7	76.7	
PELD 31 or greater	0	--	--	--	--		55	58.2	74.5	74.5	76.4	
Temporarily Inactive	0	--	--	--	--		1,297	7.2	31.1	40.6	41.6	

\* 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 B9. Time to transplant for waiting list candidates\***

**Candidates registered on the waiting list between 01/01/2013 and 06/30/2018**

Percentile	Center	Months to Transplant**		U.S.
		OPO/DSA	Region	
5th	0.1	0.1	0.2	0.2
10th	0.2	0.2	0.3	0.3
25th	1.2	1.2	3.0	1.9
50th (median time to transplant)	9.1	6.7	20.5	11.2
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 12/31/2018. 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 B10. Offer Acceptance Practices: 01/01/2018 - 12/31/2018**

Offers Acceptance Characteristics	This Center	OPO/DSA	Region	U.S.
<b>Overall</b>				
Number of Offers	844	2,828	46,210	168,159
Number of Acceptances	117	270	1,099	7,003
Expected Acceptances	61.5	139.1	1,221.4	6,993.9
Offer Acceptance Ratio*	1.87	1.93	0.90	1.00
95% Credible Interval**	[1.55, 2.23]	--	--	--
<b>PHS increased infectious risk</b>				
Number of Offers	277	788	11,496	38,585
Number of Acceptances	39	77	286	1,979
Expected Acceptances	22.3	41.7	315.5	1,976.5
Offer Acceptance Ratio*	1.69	1.81	0.91	1.00
95% Credible Interval**	[1.21, 2.24]	--	--	--
<b>DCD donor</b>				
Number of Offers	107	509	9,594	34,675
Number of Acceptances	25	60	99	505
Expected Acceptances	5.4	12.4	94.6	509.0
Offer Acceptance Ratio*	3.64	4.29	1.05	0.99
95% Credible Interval**	[2.40, 5.14]	--	--	--
<b>HCV+ donor</b>				
Number of Offers	111	135	1,636	5,645
Number of Acceptances	10	14	32	356
Expected Acceptances	7.4	8.0	36.6	355.7
Offer Acceptance Ratio*	1.27	1.60	0.88	1.00
95% Credible Interval**	[0.66, 2.09]	--	--	--
<b>Hard-to-Place Livers (Over 50 Offers)</b>				
Number of Offers	393	1,815	31,322	97,991
Number of Acceptances	35	102	185	576
Expected Acceptances	2.2	9.2	177.8	581.8
Offer Acceptance Ratio*	8.82	9.29	1.04	0.99
95% Credible Interval**	[6.21, 11.88]	--	--	--
<b>Donor more than 500 miles away</b>				
Number of Offers	181	948	13,535	50,819
Number of Acceptances	23	67	194	704
Expected Acceptances	9.2	23.3	170.8	656.1
Offer Acceptance Ratio*	2.22	2.72	1.13	1.07
95% Credible Interval**	[1.44, 3.17]	--	--	--

\* The offer acceptance ratio estimates the relative offer acceptance practice of Banner-University Medical Center Phoenix (AZGS) 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, [1.55, 2.23], indicates the location of AZGS's true offer acceptance ratio with 95% probability. The best estimate is 87% more likely to accept an offer compared to national acceptance behavior, but AZGS's performance could plausibly range from 55% higher acceptance up to 123% higher acceptance.



## B. Waiting List Information

Figure B7. Offer acceptance: Overall

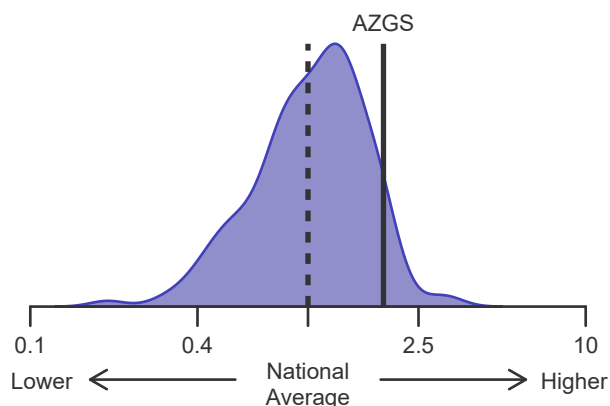


Figure B8. Offer acceptance:  
PHS increased infectious risk

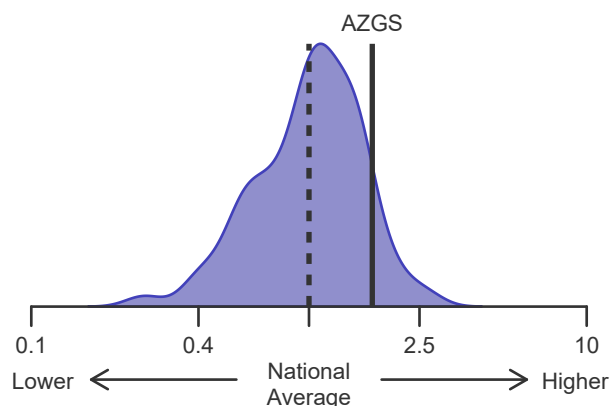


Figure B9. Offer acceptance: DCD Donor

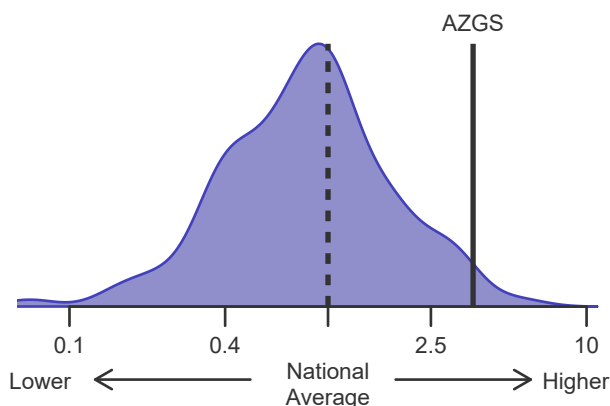


Figure B10. Offer acceptance: HCV+ Donor

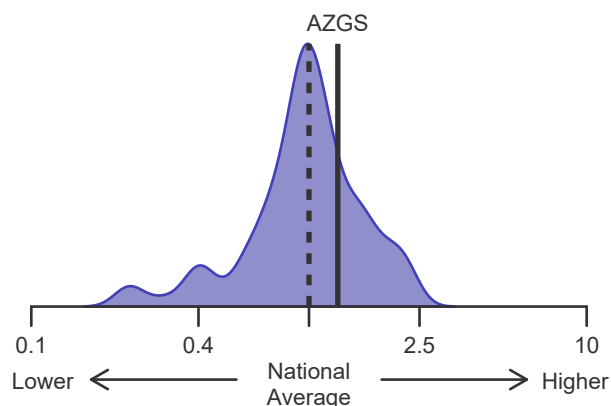


Figure B11. Offer acceptance: Offer number > 50

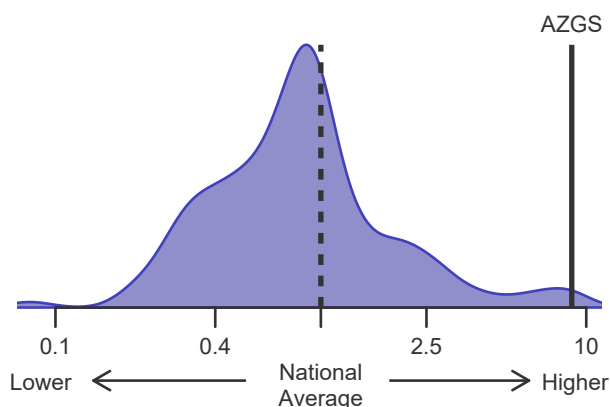
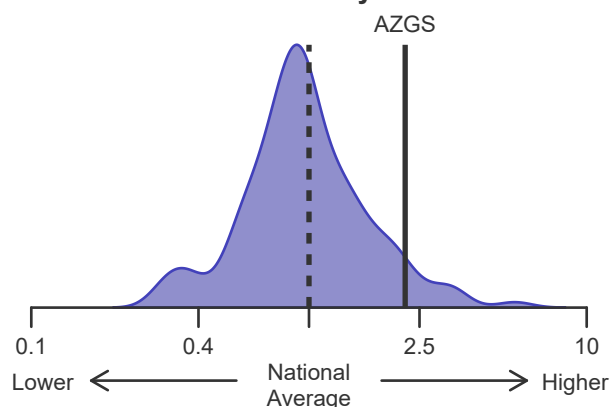


Figure B12. Offer acceptance:  
Donor more than 500 miles away





## C. Transplant Information

**Table C1D. Deceased donor transplant recipient demographic characteristics**

**Patients transplanted between 01/01/2018 and 12/31/2018**

Characteristic	Percentage in each category		
	Center (N=120)	Region (N=1,247)	U.S. (N=7,849)
<b>Ethnicity/Race (%)*</b>			
White	46.7	47.0	68.6
African-American	1.7	2.8	8.8
Hispanic/Latino	29.2	35.8	16.0
Asian	5.0	10.4	4.8
Other	17.5	3.9	1.8
Unknown	0.0	0.0	0.0
<b>Age (%)</b>			
<2 years	0.0	4.3	2.6
2-11 years	0.0	2.8	2.6
12-17	0.0	1.4	1.2
18-34	6.7	5.4	6.0
35-49 years	17.5	15.6	16.5
50-64 years	55.0	48.9	49.3
65+ years	20.8	21.6	21.8
Unknown	0.0	0.0	0.0
<b>Gender (%)</b>			
Male	55.0	62.4	64.5
Female	45.0	37.6	35.5

\* 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%.



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## C. Transplant Information

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**Table C1L. Living donor transplant recipient demographic characteristics**

**Patients transplanted between 01/01/2018 and 12/31/2018**

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



## C. Transplant Information

**Table C2D. Deceased donor transplant recipient medical characteristics**  
Patients transplanted between 01/01/2018 and 12/31/2018

Characteristic	Percentage in each category		
	Center (N=120)	Region (N=1,247)	U.S. (N=7,849)
<b>Blood Type (%)</b>			
O	48.3	48.9	44.9
A	38.3	31.4	36.2
B	11.7	14.0	14.1
AB	1.7	5.6	4.8
<b>Previous Transplant (%)</b>			
Yes	4.2	5.3	4.9
No	95.8	94.7	95.1
<b>Body Mass Index (%)</b>			
0-20	4.2	15.6	12.4
21-25	28.3	28.9	27.4
26-30	26.7	28.7	29.7
31+	40.8	25.8	29.6
Unknown	0.0	1.0	0.9
<b>Primary Disease (%)</b>			
Acute Hepatic Necrosis	5.0	7.1	4.9
Non-Cholestatic Cirrhosis	61.7	59.7	61.2
Cholestatic Liver Disease/Cirrhosis	5.0	4.9	6.8
Biliary Atresia	0.0	3.1	2.9
Metabolic Diseases	0.8	2.8	3.1
Malignant Neoplasms	27.5	20.2	17.5
Other	0.0	2.1	3.6
Missing	0.0	0.1	0.1
<b>Medical Urgency Statust/MELD/PELD at Transplant (%)*</b>			
Status 1A	0.8	5.0	3.6
Status 1B	0.0	2.2	1.4
MELD 6-10	14.2	13.2	14.7
MELD 11-14	15.0	11.8	13.1
MELD 15-20	20.8	14.8	20.0
MELD 21-30	17.5	18.0	22.4
MELD 31-40	31.7	31.4	21.5
PELD less than or equal to 10	0.0	1.6	1.8
PELD 11-14	0.0	0.2	0.3
PELD 15-20	0.0	0.6	0.5
PELD 21-30	0.0	0.6	0.5
PELD 31 or greater	0.0	0.6	0.2
Temporarily Inactive	0.0	0.1	0.0
<b>Recipient Medical Condition at Transplant (%)</b>			
Not Hospitalized	59.2	54.5	66.0
Hospitalized	30.0	17.9	18.1
ICU	10.8	27.0	15.6
Unknown	0.0	0.6	0.2

\* 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



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## C. Transplant Information

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**Table C2L. Living donor transplant recipient medical characteristics**  
**Patients transplanted between 01/01/2018 and 12/31/2018**

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



## C. Transplant Information

**Table C3D. Deceased donor characteristics**

Transplants performed between 01/01/2018 and 12/31/2018

Donor Characteristic	Percentage in each category		
	Center (N=120)	Region (N=1,247)	U.S. (N=7,849)
<b>Cause of Death (%)</b>			
Deceased: Stroke	23.3	27.3	27.4
Deceased: MVA	19.2	15.5	13.7
Deceased: Other	57.5	57.2	58.9
<b>Ethnicity/Race (%)*</b>			
White	60.8	52.4	63.2
African-American	3.3	9.2	18.9
Hispanic/Latino	30.0	28.1	14.2
Asian	5.0	7.1	2.7
Other	0.8	3.2	1.1
Not Reported	0.0	0.0	0.0
<b>Age (%)</b>			
<2 years	0.0	1.8	1.3
2-11 years	0.0	3.1	2.8
12-17	0.8	4.0	4.7
18-34	38.3	33.3	33.2
35-49 years	23.3	26.6	26.6
50-64 years	30.0	24.0	23.3
65+ years	7.5	7.2	8.0
Unknown	0.0	0.0	0.0
<b>Gender (%)</b>			
Male	65.8	62.9	60.5
Female	34.2	37.1	39.5
<b>Blood Type (%)</b>			
O	55.0	53.4	48.6
A	36.7	32.5	36.6
B	7.5	11.2	12.1
AB	0.8	2.9	2.7
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%.



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## C. Transplant Information

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### Table C3L. Living donor characteristics

Transplants performed between 01/01/2018 and 12/31/2018

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





## C. Transplant Information

**Table C4D. Deceased donor transplant characteristics**  
**Transplants performed between 01/01/2018 and 12/31/2018**

Transplant Characteristic	Percentage in each category		
	Center (N=120)	Region (N=1,247)	U.S. (N=7,849)
<b>Cold Ischemic Time (Hours): Local (%)</b>			
Deceased: 0-5 hr	91.7	46.0	63.5
Deceased: 6-10 hr	8.3	49.5	34.3
Deceased: 11-15 hr	0.0	3.7	1.3
Deceased: 16-20 hr	0.0	0.2	0.1
Deceased: 21+ hr	0.0	0.0	0.1
Not Reported	0.0	0.6	0.6
<b>Cold Ischemic Time (Hours): Shared (%)</b>			
Deceased: 0-5 hr	62.5	24.8	41.5
Deceased: 6-10 hr	37.5	69.0	54.9
Deceased: 11-15 hr	0.0	5.1	2.6
Deceased: 16-20 hr	0.0	0.2	0.1
Deceased: 21+ hr	0.0	0.0	0.0
Not Reported	0.0	1.0	0.9
<b>Procedure Type (%)</b>			
Liver alone	97.5	89.7	89.9
Liver and another organ	2.5	10.3	10.1
<b>Sharing (%)</b>			
Local	40.0	49.6	63.2
Shared	60.0	50.4	36.8
<b>Median Time in Hospital After Transplant*</b>	11.0 Days	11.0 Days	9.0 Days

\* Multiple organ transplants are excluded from this statistic.



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## C. Transplant Information

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**Table C4L. Living donor transplant characteristics**

**Transplants performed between 01/01/2018 and 12/31/2018**

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



## C. Transplant Information

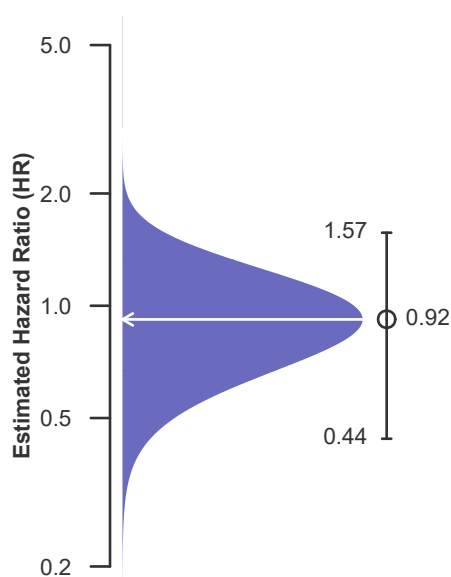
**Table C5. Adult (18+) 1-month survival with a functioning graft**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	212	16,600
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	96.23%	96.20%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	95.89%	--
Number of observed graft failures (including deaths) during the first month after transplant	8	631
Number of expected graft failures (including deaths) during the first month after transplant	8.88	--
Estimated hazard ratio*	0.92	--
95% credible interval for the hazard ratio**	[0.44, 1.57]	--

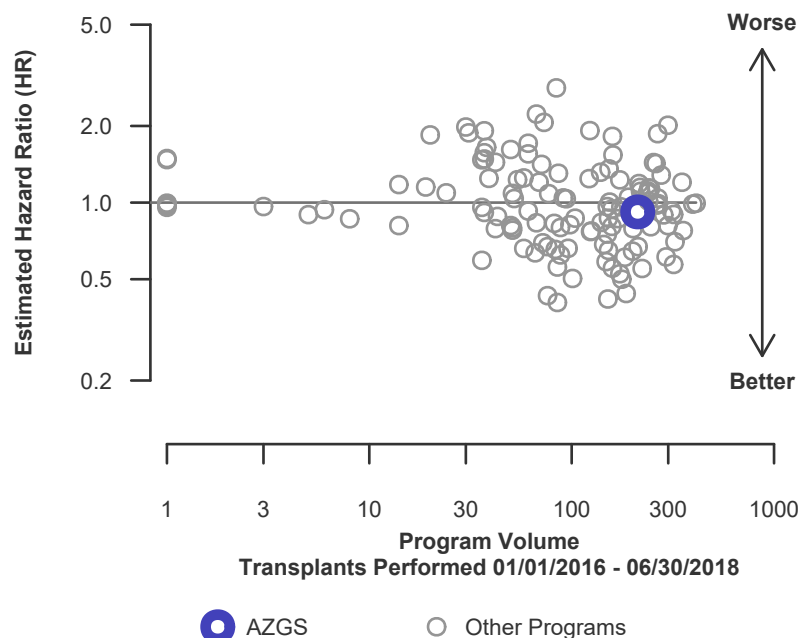
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.44, 1.57], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 8% lower risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 56% reduced risk up to 57% increased risk.

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



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





## C. Transplant Information

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

**Single organ transplants performed between 01/01/2016 and 06/30/2018**

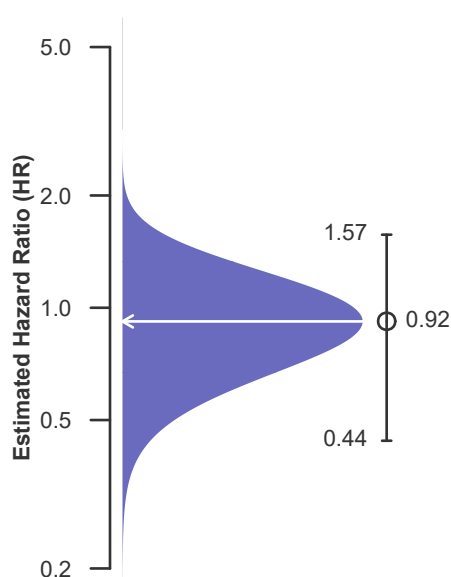
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	212	15,876
Estimated probability of surviving with a functioning graft at 1 month (unadjusted for patient and donor characteristics)	96.23%	96.20%
Expected probability of surviving with a functioning graft at 1 month (adjusted for patient and donor characteristics)	95.89%	--
Number of observed graft failures (including deaths) during the first month after transplant	8	604
Number of expected graft failures (including deaths) during the first month after transplant	8.88	--
Estimated hazard ratio*	0.92	--
95% credible interval for the hazard ratio**	[0.44, 1.57]	--

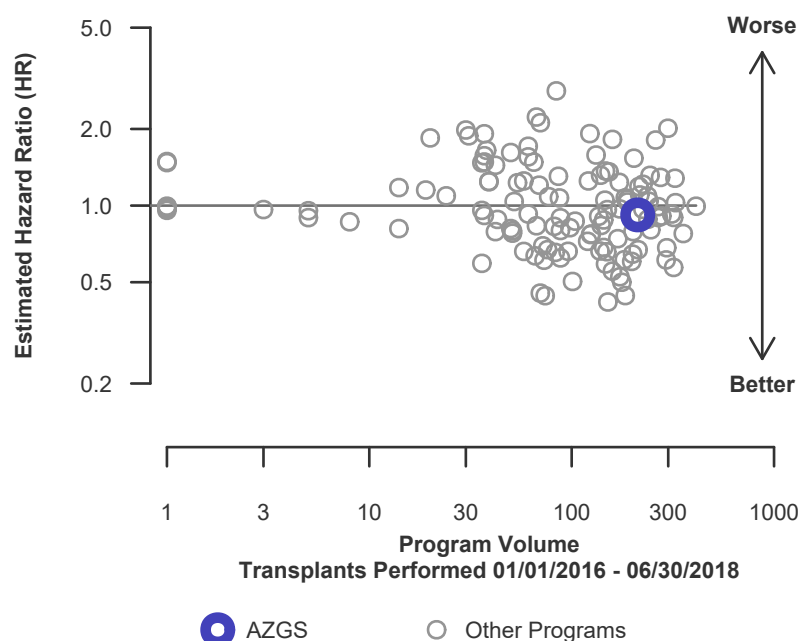
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.44, 1.57], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 8% lower risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 56% reduced risk up to 57% increased risk.

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



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





## C. Transplant Information

**Table C5L. Adult (18+) 1-month 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**

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

**Figure C1L. Adult (18+) 1-month  
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 C2L. Adult (18+) 1-month 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 C6. Adult (18+) 1-year survival with a functioning graft**

**Single organ transplants performed between 01/01/2016 and 06/30/2018**

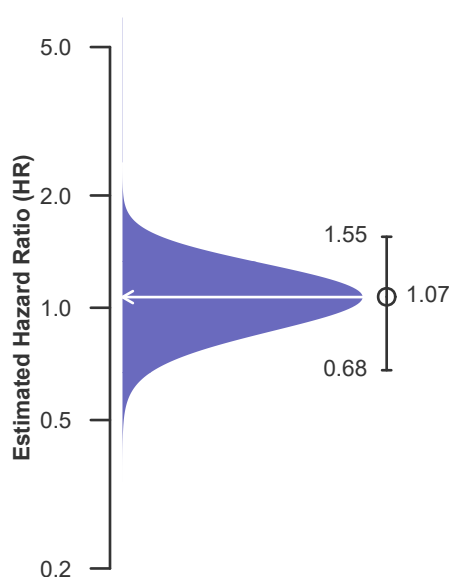
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	212	16,600
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	89.29%	91.04%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	90.12%	--
Number of observed graft failures (including deaths) during the first year after transplant	21	1,413
Number of expected graft failures (including deaths) during the first year after transplant	19.53	--
Estimated hazard ratio*	1.07	--
95% credible interval for the hazard ratio**	[0.68, 1.55]	--

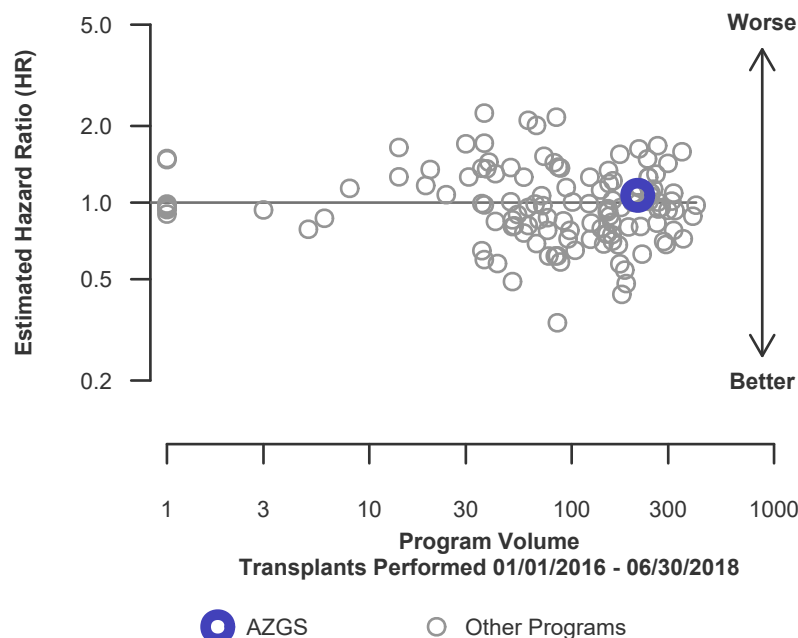
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.68, 1.55], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 7% higher risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 32% reduced risk up to 55% increased risk.

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



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





## C. Transplant Information

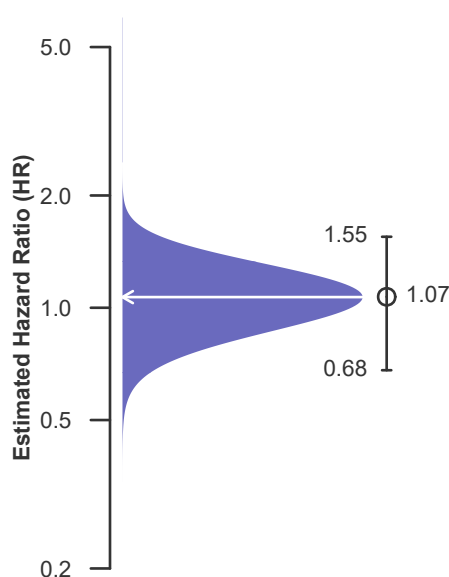
**Table C6D. Adult (18+) 1-year survival with a functioning deceased donor graft**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	212	15,876
Estimated probability of surviving with a functioning graft at 1 year (unadjusted for patient and donor characteristics)	89.29%	91.04%
Expected probability of surviving with a functioning graft at 1 year (adjusted for patient and donor characteristics)	90.12%	--
Number of observed graft failures (including deaths) during the first year after transplant	21	1,352
Number of expected graft failures (including deaths) during the first year after transplant	19.53	--
Estimated hazard ratio*	1.07	--
95% credible interval for the hazard ratio**	[0.68, 1.55]	--

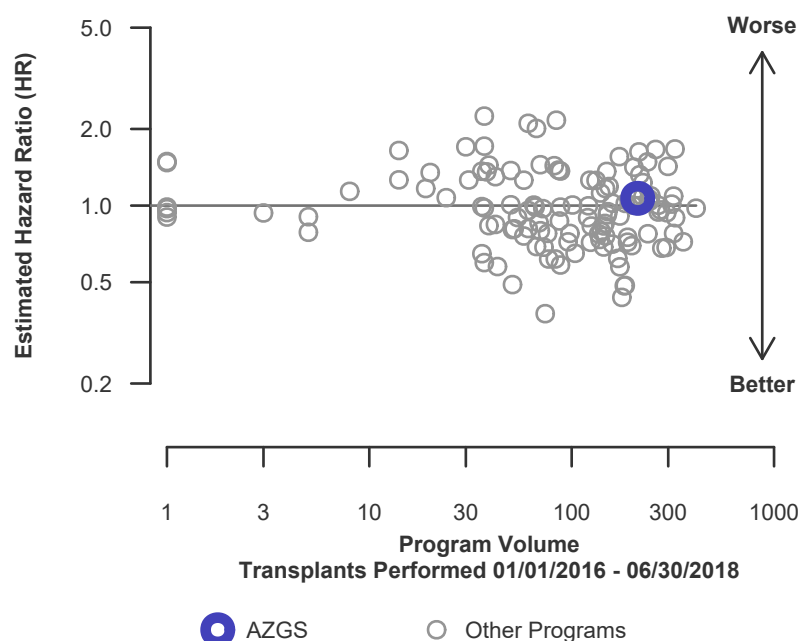
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.68, 1.55], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 7% higher risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 32% reduced risk up to 55% increased risk.

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



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





## C. Transplant Information

**Table C6L. Adult (18+) 1-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**

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

**Figure C3L. Adult (18+) 1-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 C4L. Adult (18+) 1-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 C7. Adult (18+) 3-year survival with a functioning graft**

**Single organ transplants performed between 07/01/2013 and 12/31/2015**

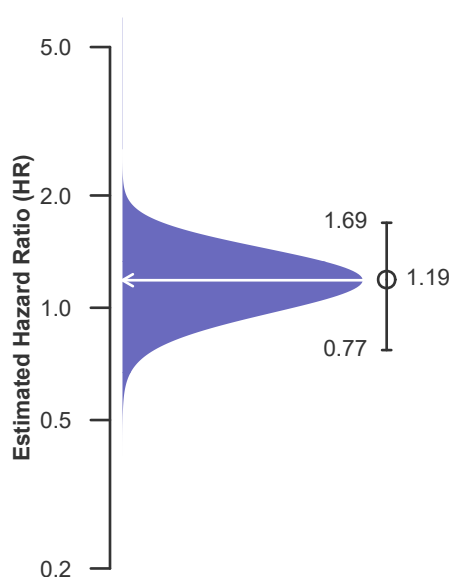
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	115	14,203
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	80.00%	83.29%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	82.94%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	23	2,373
Number of expected graft failures (including deaths) during the first 3 years after transplant	19.09	--
Estimated hazard ratio*	1.19	--
95% credible interval for the hazard ratio**	[0.77, 1.69]	--

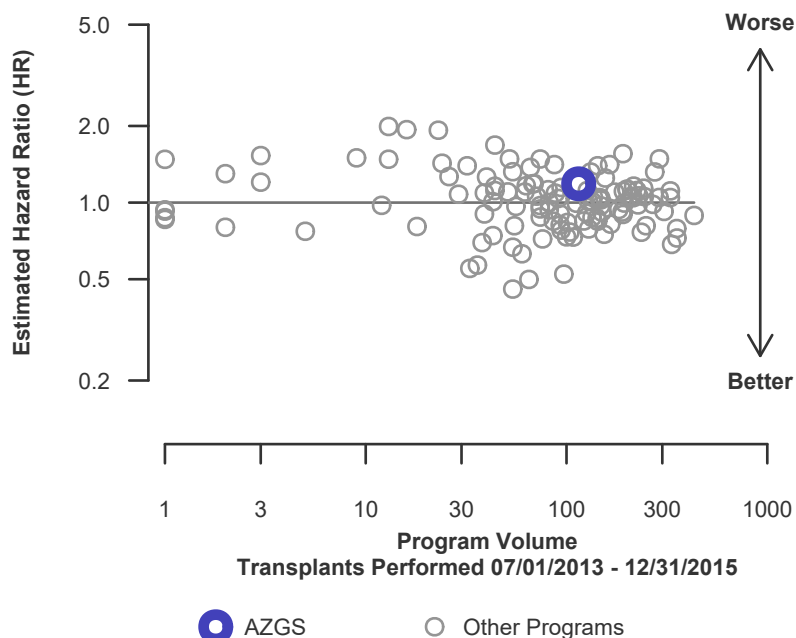
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.77, 1.69], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 19% higher risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 23% reduced risk up to 69% 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

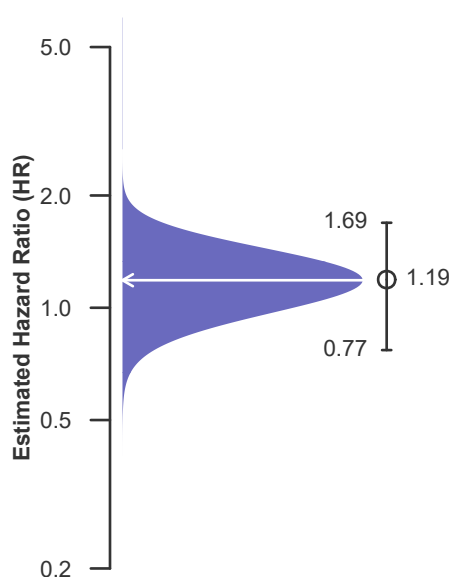
**Table C7D. Adult (18+) 3-year survival with a functioning deceased donor graft**  
**Single organ transplants performed between 07/01/2013 and 12/31/2015**  
**Deaths and retransplants are considered graft failures**

	AZGS	U.S.
Number of transplants evaluated	115	13,595
Estimated probability of surviving with a functioning graft at 3 years (unadjusted for patient and donor characteristics)	80.00%	83.34%
Expected probability of surviving with a functioning graft at 3 years (adjusted for patient and donor characteristics)	82.94%	--
Number of observed graft failures (including deaths) during the first 3 years after transplant	23	2,265
Number of expected graft failures (including deaths) during the first 3 years after transplant	19.09	--
Estimated hazard ratio*	1.19	--
95% credible interval for the hazard ratio**	[0.77, 1.69]	--

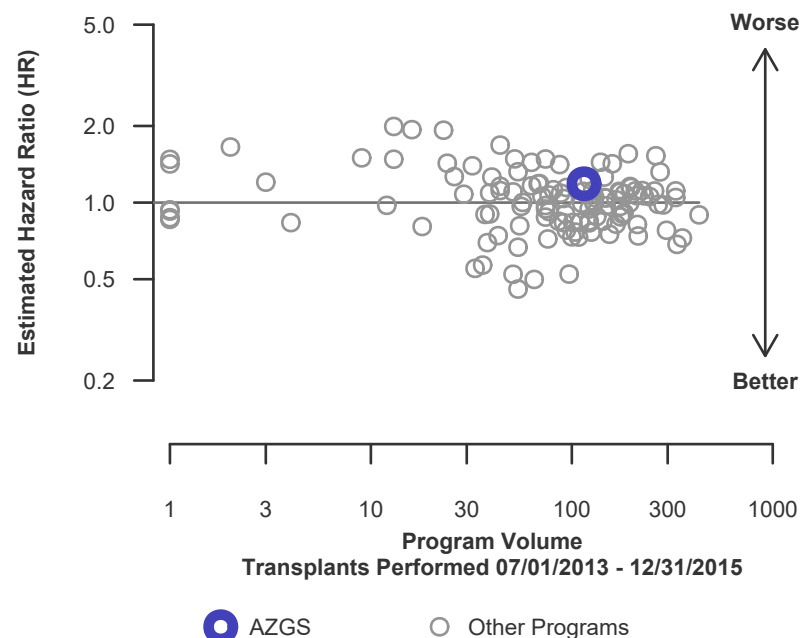
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected graft failure rates (e.g., a hazard ratio of 1.5 would 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 AZGS's graft failure rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.77, 1.69], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 19% higher risk of graft failure compared to an average program, but AZGS's performance could plausibly range from 23% reduced risk up to 69% 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 07/01/2013 and 12/31/2015**  
**Deaths and retransplants are considered graft failures**

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

**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  
07/01/2013-12/31/2015



## C. Transplant Information

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

Single organ transplants performed between 01/01/2016 and 06/30/2018

Deaths and retransplants are considered graft failures

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

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

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

### Figure C8. Pediatric (<18) 1-month 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 C8D. Pediatric (<18) 1-month 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**

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

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

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

**Figure C8D. Pediatric (<18) 1-month deceased 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 C8L. Pediatric (<18) 1-month 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**

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

**Figure C7L. Pediatric (<18)  
1-month 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 C8L. Pediatric (<18) 1-month 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 C9. Pediatric (<18) 1-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**

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

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

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

**Figure C10. Pediatric (<18) 1-year 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 C9D. Pediatric (<18) 1-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**

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

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

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

**Figure C10D. Pediatric (<18) 1-year deceased 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 C9L. Pediatric (<18) 1-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**

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

**Figure C9L. Pediatric (<18) 1-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 C10L. Pediatric (<18) 1-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 C10. Pediatric (<18) 3-year survival with a functioning graft**  
**Single organ transplants performed between 07/01/2013 and 12/31/2015**  
**Deaths and retransplants are considered graft failures**

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015



## C. Transplant Information

**Table C10D. Pediatric (<18) 3-year survival with a functioning deceased donor graft**  
**Single organ transplants performed between 07/01/2013 and 12/31/2015**  
**Deaths and retransplants are considered graft failures**

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015



## C. Transplant Information

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

Single organ transplants performed between 07/01/2013 and 12/31/2015

Deaths and retransplants are considered graft failures

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

### 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  
07/01/2013-12/31/2015



## C. Transplant Information

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

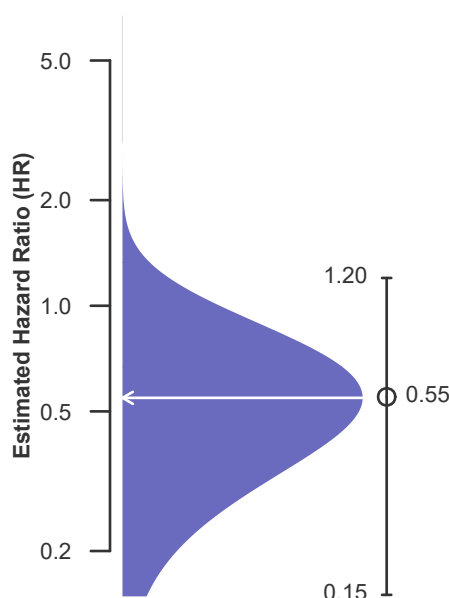
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Retransplants excluded**

	AZGS	U.S.
Number of transplants evaluated	201	15,950
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	99.00%	97.55%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	97.39%	--
Number of observed deaths during the first month after transplant	2	390
Number of expected deaths during the first month after transplant	5.32	--
Estimated hazard ratio*	0.55	--
95% credible interval for the hazard ratio**	[0.15, 1.20]	--

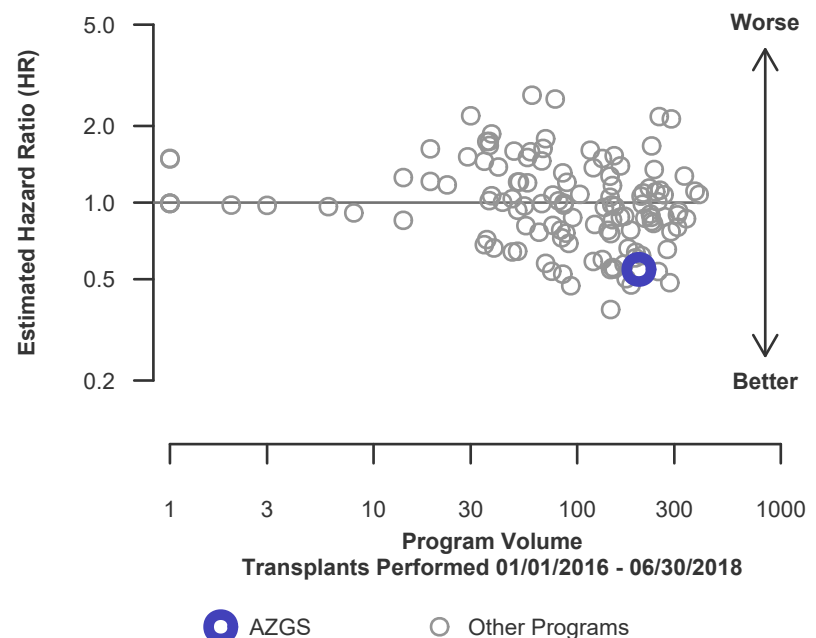
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.15, 1.20], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 45% lower risk of patient death compared to an average program, but AZGS's performance could plausibly range from 85% reduced risk up to 20% increased risk.

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



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





## C. Transplant Information

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

**Single organ transplants performed between 01/01/2016 and 06/30/2018**

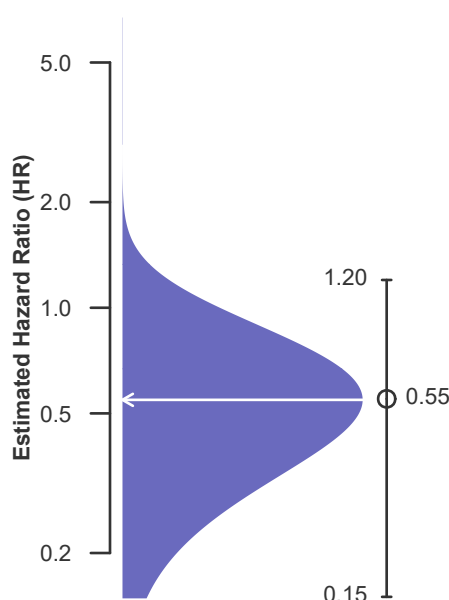
**Retransplants excluded**

	AZGS	U.S.
Number of transplants evaluated	201	15,233
Estimated probability of surviving at 1 month (unadjusted for patient and donor characteristics)	99.00%	97.50%
Expected probability of surviving at 1 month (adjusted for patient and donor characteristics)	97.39%	--
Number of observed deaths during the first month after transplant	2	381
Number of expected deaths during the first month after transplant	5.32	--
Estimated hazard ratio*	0.55	--
95% credible interval for the hazard ratio**	[0.15, 1.20]	--

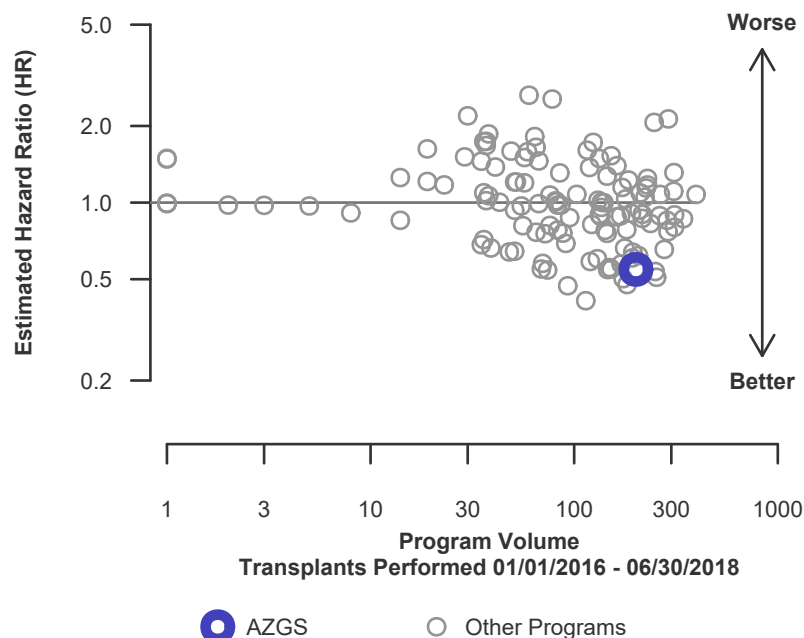
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.15, 1.20], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 45% lower risk of patient death compared to an average program, but AZGS's performance could plausibly range from 85% reduced risk up to 20% increased risk.

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



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





## C. Transplant Information

**Table C11L. Adult (18+) 1-month patient survival (living donor graft recipients)**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Retransplants excluded**

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

**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  
01/01/2016-06/30/2018

**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  
01/01/2016-06/30/2018



## C. Transplant Information

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

**Single organ transplants performed between 01/01/2016 and 06/30/2018**

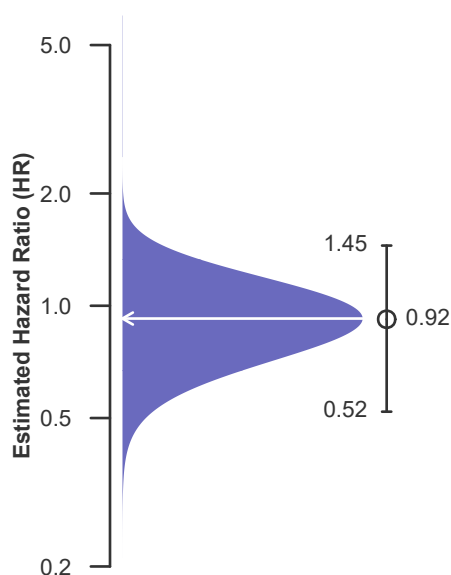
**Retransplants excluded**

	AZGS	U.S.
Number of transplants evaluated	201	15,950
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	92.69%	93.04%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	92.46%	--
Number of observed deaths during the first year after transplant	13	1,045
Number of expected deaths during the first year after transplant	14.23	--
Estimated hazard ratio*	0.92	--
95% credible interval for the hazard ratio**	[0.52, 1.45]	--

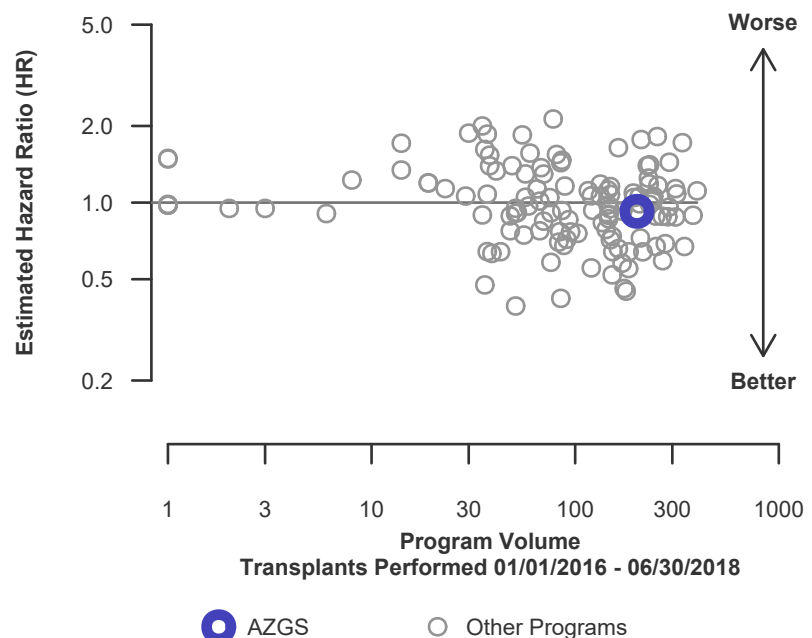
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.52, 1.45], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 8% lower risk of patient death compared to an average program, but AZGS's performance could plausibly range from 48% reduced risk up to 45% increased risk.

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



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







## C. Transplant Information

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

Single organ transplants performed between 01/01/2016 and 06/30/2018

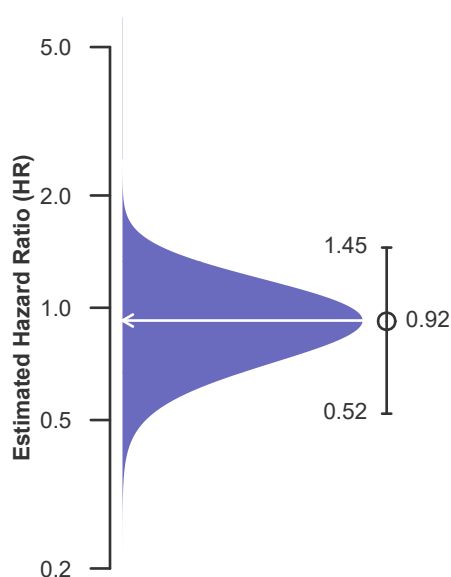
Retransplants excluded

	AZGS	U.S.
Number of transplants evaluated	201	15,233
Estimated probability of surviving at 1 year (unadjusted for patient and donor characteristics)	92.69%	92.92%
Expected probability of surviving at 1 year (adjusted for patient and donor characteristics)	92.46%	--
Number of observed deaths during the first year after transplant	13	1,016
Number of expected deaths during the first year after transplant	14.23	--
Estimated hazard ratio*	0.92	--
95% credible interval for the hazard ratio**	[0.52, 1.45]	--

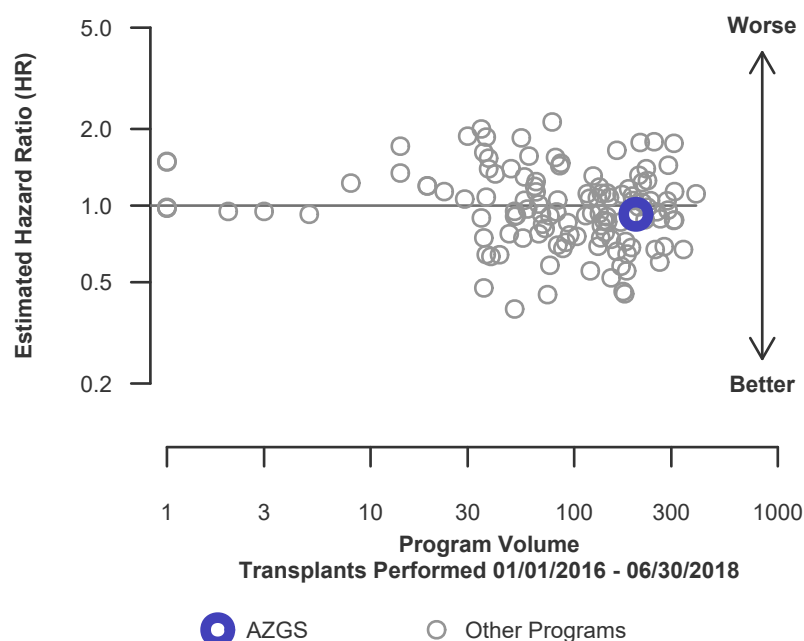
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.52, 1.45], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 8% lower risk of patient death compared to an average program, but AZGS's performance could plausibly range from 48% reduced risk up to 45% increased risk.

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



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





## C. Transplant Information

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

Single organ transplants performed between 01/01/2016 and 06/30/2018

Retransplants excluded

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

### 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  
01/01/2016-06/30/2018

### 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  
01/01/2016-06/30/2018



## C. Transplant Information

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

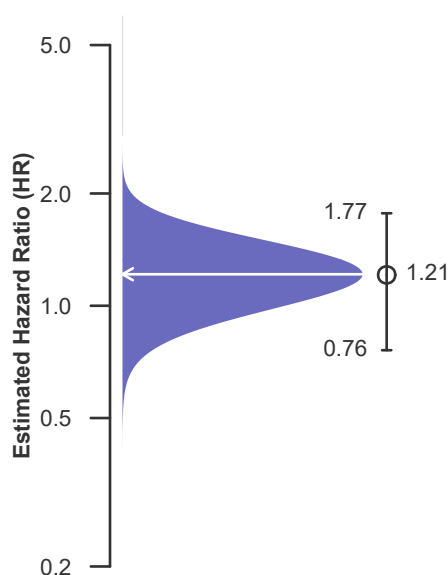
**Single organ transplants performed between 07/01/2013 and 12/31/2015**  
**Retransplants excluded**

	AZGS	U.S.
Number of transplants evaluated	109	13,591
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	81.65%	85.58%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	84.91%	--
Number of observed deaths during the first 3 years after transplant	20	1,960
Number of expected deaths during the first 3 years after transplant	16.11	--
Estimated hazard ratio*	1.21	--
95% credible interval for the hazard ratio**	[0.76, 1.77]	--

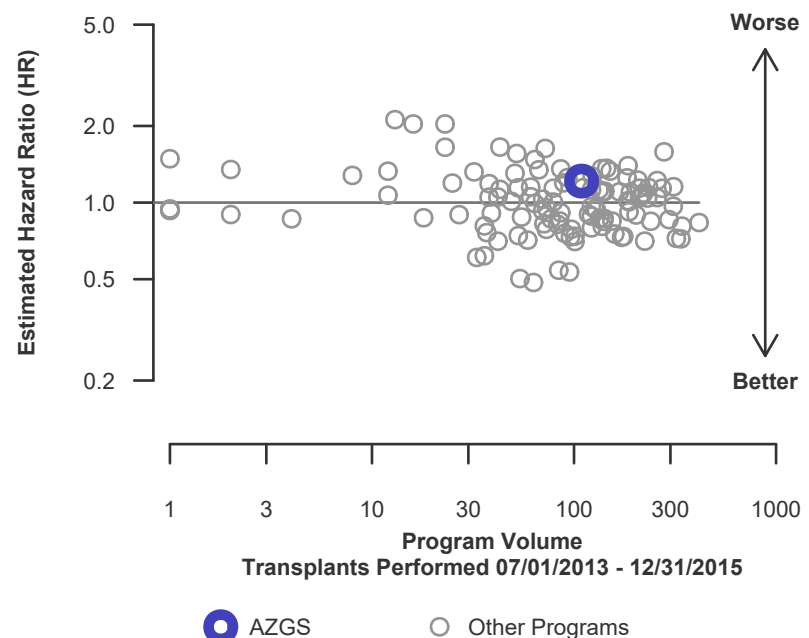
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.76, 1.77], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 21% higher risk of patient death compared to an average program, but AZGS's performance could plausibly range from 24% reduced risk up to 77% increased risk.

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



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





## C. Transplant Information

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

**Single organ transplants performed between 07/01/2013 and 12/31/2015**

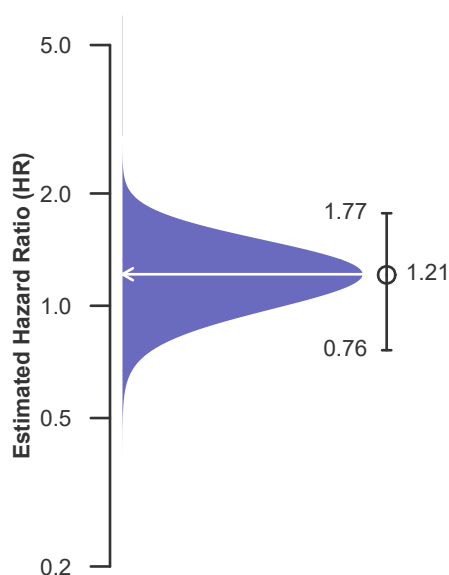
**Retransplants excluded**

	AZGS	U.S.
Number of transplants evaluated	109	12,989
Estimated probability of surviving at 3 years (unadjusted for patient and donor characteristics)	81.65%	85.54%
Expected probability of surviving at 3 years (adjusted for patient and donor characteristics)	84.91%	--
Number of observed deaths during the first 3 years after transplant	20	1,878
Number of expected deaths during the first 3 years after transplant	16.11	--
Estimated hazard ratio*	1.21	--
95% credible interval for the hazard ratio**	[0.76, 1.77]	--

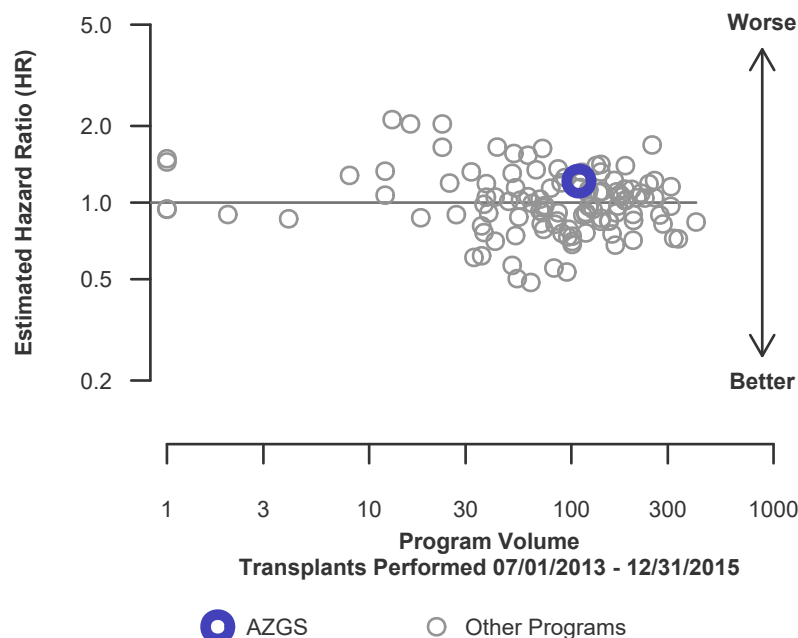
\* The hazard ratio provides an estimate of how Banner-University Medical Center Phoenix (AZGS)'s results compare with what was expected based on modeling the transplant outcomes from all U.S. programs. A ratio above 1 indicates higher than expected patient death rates (e.g., a hazard ratio of 1.5 would 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 AZGS's patient death rate were precisely the expected rate, the estimated hazard ratio would be 1.0.

\*\* The 95% credible interval, [0.76, 1.77], indicates the location of AZGS's true hazard ratio with 95% probability. The best estimate is 21% higher risk of patient death compared to an average program, but AZGS's performance could plausibly range from 24% reduced risk up to 77% increased risk.

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



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





## C. Transplant Information

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

Single organ transplants performed between 07/01/2013 and 12/31/2015

Retransplants excluded

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

### 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  
07/01/2013-12/31/2015

### 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  
07/01/2013-12/31/2015



## C. Transplant Information

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

**Single organ transplants performed between 01/01/2016 and 06/30/2018**

**Retransplants excluded**

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

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

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

**Figure C20. Pediatric (<18) 1-month 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 C14D. Pediatric (<18) 1-month patient survival (deceased donor graft recipients)**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Retransplants excluded**

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

**Figure C19D. Pediatric (<18)**  
**1-month 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 C20D. Pediatric (<18) 1-month 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 C14L. Pediatric (<18) 1-month patient survival (living donor graft recipients)**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Retransplants excluded**

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

**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  
01/01/2016-06/30/2018

**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  
01/01/2016-06/30/2018





## C. Transplant Information

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

Single organ transplants performed between 01/01/2016 and 06/30/2018

Retransplants excluded

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

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

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

### Figure C22. Pediatric (<18) 1-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 C15D. Pediatric (<18) 1-year patient survival (deceased donor graft recipients)**  
**Single organ transplants performed between 01/01/2016 and 06/30/2018**  
**Retransplants excluded**

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

**Figure C21D. Pediatric (<18)  
1-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 C22D. Pediatric (<18) 1-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 C15L. Pediatric (<18) 1-year patient survival (living donor graft recipients)

Single organ transplants performed between 01/01/2016 and 06/30/2018

Retransplants excluded

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

### 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  
01/01/2016-06/30/2018

### 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  
01/01/2016-06/30/2018



## C. Transplant Information

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

Single organ transplants performed between 07/01/2013 and 12/31/2015

Retransplants excluded

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015



## C. Transplant Information

**Table C16D. Pediatric (<18) 3-year patient survival (deceased donor graft recipients)**  
**Single organ transplants performed between 07/01/2013 and 12/31/2015**  
**Retransplants excluded**

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015

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

This center did not perform any  
transplants relevant to  
this figure during  
07/01/2013-12/31/2015



## C. Transplant Information

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

Single organ transplants performed between 07/01/2013 and 12/31/2015

Retransplants excluded

This center did not perform any  
transplants relevant to  
this table during  
07/01/2013-12/31/2015

### 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  
07/01/2013-12/31/2015

### 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  
07/01/2013-12/31/2015



## C. Transplant Information

**Table C17. Multi-organ transplant graft survival: 01/01/2016 - 06/30/2018**

### Adult (18+) Transplants

Transplant Type	First-Year Outcomes					
	Transplants Performed		Liver Graft Failures		Estimated Liver Graft Survival	
	AZGS-TX1	USA	AZGS-TX1	USA	AZGS-TX1	USA
Kidney-Liver	13	1,761	4	169	67.3%	90.0%

### Pediatric (<18) Transplants

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

**Table C18. Multi-organ transplant patient survival: 01/01/2016 - 06/30/2018**

### Adult (18+) Transplants

Transplant Type	First-Year Outcomes					
	Transplants Performed		Patient Deaths		Estimated Patient Survival	
	AZGS-TX1	USA	AZGS-TX1	USA	AZGS-TX1	USA
Kidney-Liver	13	1,761	4	157	67.3%	90.7%

### Pediatric (<18) Transplants

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



## D. Living Donor Information

Table D1. Living donor summary: 01/01/2016 - 12/31/2018

Living Donor Follow-Up	This Center			United States		
	01/2016- 12/2016	01/2017- 12/2017	01/2018- 06/2018	01/2016- 12/2016	01/2017- 12/2017	01/2018- 06/2018
<b>Number of Living Donors</b>	--	--	--	--	--	--
<b>6-Month Follow-Up</b>						
Donors due for follow-up	--	--	--	--	--	--
Timely clinical data	-- --%	-- --%	-- --%	-- --%	-- --%	-- --%
Timely lab data	-- --%	-- --%	-- --%	-- --%	-- --%	-- --%
<b>12-Month Follow-Up</b>						
Donors due for follow-up	--	--		--	--	
Timely clinical data	-- --%	-- --%		-- --%	-- --%	
Timely lab data	-- --%	-- --%		-- --%	-- --%	
<b>24-Month Follow-Up</b>						
Donors due for follow-up	--			--		
Timely clinical data	-- --%			-- --%		
Timely lab data	-- --%			-- --%		

Follow-up completion standards through 2 years post-donation were implemented in policy on February 1, 2013.