



SWISS
TRANSPLANT
COHORT
STUDY

Swiss Transplant Cohort Study report (May 2008 - December 2015)

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Disclaimer

The STCS Annual Report covers all solid organ transplantation (SOT) activities on the Swiss national level since May 2008 (and to a reduced extent also since January 2008). The report is comprehensive and contains all combinations of simultaneous solid organ transplantations, consecutive transplantations, centre-specific activities and key outcomes of all transplantation programs including limited reporting of infectious disease and cancer occurrence. To serve the aim of comprehensive transplant outcome reporting, the report is based on unselected patient populations of the different transplant programs and transplant centres. **However, it is important to note that the report is not designed for and does not serve the purpose of center-specific outcomes comparison.** This analysis is currently underway in the “STCS Benchmarking project”.

The Swiss Transplant Cohort Study (STCS)

List of Abbreviations

STCS	Swiss Transplant Cohort Study
BE	Inselspital Bern
CHUV	Centre Hospitalier Universitaire Vaudois Lausanne
CI	confidence interval
CumInc	cumulative incidence(s)
FUP	follow-up
GF	graft failure
HUG	Hôpitaux Universitaires de Genève
ID	infectious disease
IQR	interquartile range
SG	Kantonsspital St. Gallen
USZ	Universitätsspital Zürich
USB	Universitätsspital Basel
Tpx	transplantation(s)

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1 Comments from the centres

1.1 Inselspital Bern

Approves open publication.

1.2 Centre Hospitalier Universitaire Vaudois Lausanne

Approves open publication.

1.3 Hôpitaux Universitaires de Genève

Approves open publication.

1.4 Kantonsspital St. Gallen

Approves open publication.

1.5 Universitätsspital Basel

Approves open publication.

1.6 Universitätsspital Zürich

Das USZ unterstützt die Publikation der Transplantationsdaten. Wir weisen darauf hin, dass ein Vergleich der Überlebenskurven nur nach eingehender Analyse der Risikoprofile der Empfänger und Spender erfolgen sollte. Nicht fundierte Konsequenzen können in einer gefährlichen Benachteiligung potentieller Organempfänger resultieren.

2 News and updates

News:

- Short description of the retrospectively captured patients transplanted in the period from 1.1.2008 until 30.4.2008 is included in Appendix A.
- The STCS Annual Report includes patients of all age groups. A particular summary of pediatric patients only is given in Appendix B.

Updates:

- Patients that had a Kidney or Kidney-Kidney Tpx and have a GF are censored for mortality at the time point of GF. This is due to inconsistency in data collection across centres for these patients after GF. Patients that had a re or second Tpx after the GF are not censored.

3 Patients, transplantations and transplanted organs

Definitions applied:

- Enrolment refers to inclusion of all patients into the Swiss Transplant Cohort Study (STCS) from 1st of May 2008 until 31st of December 2015.
 - From those patients, all information until the date of data extraction (13th of April 2016) is included in the report.
- First transplantation(s):
 - Patients with a first transplantation(s) (Tpx) in their medical history at the time of STCS enrolment
- Re-transplantation(s):
 - Patients with a repetition of the same Tpx type
 - Example: Re-Tpx of a kidney allograft after failure of a prior kidney graft
- Second transplantation(s):
 - Patients with a second Tpx different from the previous Tpx either before STCS enrolment or during STCS follow-up (FUP)
 - Example: Tpx of a pancreas following a (successful) single kidney Tpx
 - Double/triple Tpx can qualify for both, re- and second Tpx
- Every Tpx can consist of a single, double or triple transplant(s). The terms 'double' and 'triple' refer to Tpxs in which multiple organs originating from the same donor are transplanted in a recipient (e.g. kidney-pancreas double transplant).
- Tpx prior to STCS enrolment have also been considered. Patients may thus start with a re- or a 2nd Tpx in STCS.
- Sequences of previous islet Tpx have been counted as one prior Tpx and bone marrow Tpx are excluded from the report.

3.1 Overview

The following tables list the number of patients enrolled in the STCS, Tpx performed, and organs transplanted. Table 1 and 2 show patients according to their first STCS Tpx.

Table 1: Number of patients enrolled

	Patients	(%)
Total number	3548	100.0
Single Tpx at enrolment	3378	95.2
Double Tpx at enrolment	166	4.7
Triple Tpx at enrolment	4	0.1
1st Tpx at enrolment	3123	88.0
Re-Tpx at enrolment	341	9.6
2nd Tpx at enrolment	84	2.4

Table 2: Number of patients enrolled by Tpx type

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	3548	3123	88.0	341	9.6	84	2.4
Kidney	1994	1662	83.4	294	14.7	38	1.9
Liver	732	699	95.5	27	3.7	6	0.8
Lung	351	339	96.6	9	2.6	3	0.9
Heart	259	258	99.6	1	0.4	0	0.0
Islets	31	7	22.6	9	29.0	15	48.4
Pancreas	10	5	50.0	0	0.0	5	50.0
Small bowel	1	0	0.0	1	100.0	0	0.0
Kidney - Pancreas	79	75	94.9	0	0.0	4	5.1
Kidney - Kidney	34	31	91.2	0	0.0	3	8.8
Kidney - Liver	30	23	76.7	0	0.0	7	23.3
Kidney - Islets	12	12	100.0	0	0.0	0	0.0
Kidney - Heart	4	4	100.0	0	0.0	0	0.0
Kidney - Lung	1	0	0.0	0	0.0	1	100.0
Liver - Lung	3	3	100.0	0	0.0	0	0.0
Heart - Lung	1	1	100.0	0	0.0	0	0.0
Pancreas - Small bowel	2	2	100.0	0	0.0	0	0.0
Kidney - Kidney - Pancreas	2	1	50.0	0	0.0	1	50.0
Kidney - Islets - Liver	1	0	0.0	0	0.0	1	100.0
Islets - Liver - Lung	1	1	100.0	0	0.0	0	0.0

In contrast to Table 1 and 2, Table 3 and 4 list all Tpx performed and the number of implanted organs in patients enrolled until December 2015.

Table 3: Number of Tpx types

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	3690	3123	84.6	453	12.3	114	3.1
Kidney	2039	1662	81.5	330	16.2	47	2.3
Liver	787	699	88.8	81	10.3	7	0.9
Lung	364	339	93.1	21	5.8	4	1.1
Heart	260	258	99.2	2	0.8	0	0.0
Islets	45	7	15.6	16	35.6	22	48.9
Pancreas	17	5	29.4	1	5.9	11	64.7
Small bowel	1	0	0.0	1	100.0	0	0.0
Kidney - Pancreas	80	75	93.8	1	1.2	4	5.0
Kidney - Kidney	34	31	91.2	0	0.0	3	8.8
Kidney - Liver	31	23	74.2	0	0.0	8	25.8
Kidney - Islets	13	12	92.3	0	0.0	1	7.7
Kidney - Heart	4	4	100.0	0	0.0	0	0.0
Kidney - Lung	2	0	0.0	0	0.0	2	100.0
Liver - Lung	3	3	100.0	0	0.0	0	0.0
Heart - Lung	1	1	100.0	0	0.0	0	0.0
Islets - Liver	1	0	0.0	0	0.0	1	100.0
Pancreas - Small bowel	2	2	100.0	0	0.0	0	0.0
Kidney - Kidney - Pancreas	2	1	50.0	0	0.0	1	50.0
Kidney - Islets - Liver	2	0	0.0	0	0.0	2	100.0
Liver - Pancreas - Small bowel	1	0	0.0	0	0.0	1	100.0
Islets - Liver - Lung	1	1	100.0	0	0.0	0	0.0

Remark: 'Liver - Pancreas - Small bowel' and 'Islets - Liver' Tpx are Tpx types not performed as first STCS Tpx.

Table 4: Number of transplanted organs

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	3870	3278	84.7	501	12.9	91	2.4
Kidney	2242	1840	82.1	361	16.1	41	1.8
Liver	825	726	88.0	86	10.4	13	1.6
Lung	371	344	92.7	22	5.9	5	1.3
Heart	265	263	99.2	2	0.8	0	0.0
Pancreas	102	83	81.4	8	7.8	11	10.8
Islets	61	20	32.8	20	32.8	21	34.4
Small bowel	4	2	50.0	2	50.0	0	0.0

Table 5: Patients' characteristics for major Tpx types

	Total	Kidney	Liver	Lung	Heart	Kidney - Pancreas
Total no. patients	3415	1994	732	351	259	79
Age (yrs), median - IQR*	53.5 (41.2,61.7)	53.7 (41.6,62.7)	54.8 (44.4,61.5)	53.2 (34.2,60.2)	51.7 (37.8,59.5)	44.4 (37.5,50.5)
Male gender, n (%)	2161 (63.3%)	1273 (63.8%)	485 (66.3%)	171 (48.7%)	190 (73.4%)	42 (53.2%)
Pediatric, n (%)	184 (5.4%)	85 (4.3%)	61 (8.3%)	13 (3.7%)	25 (9.7%)	0 (0%)
Observation time (yrs), median - IQR	3.3 (1.5,5.5)	3.6 (1.7,5.8)	3.1 (1.2,5.2)	2.7 (1.1,4.5)	2.9 (1.4,8)	4.1 (2.5,6.1)
No. deaths, n (%)	422 (12.4%)	129 (6.5%)	130 (17.8%)	107 (30.5%)	53 (20.5%)	3 (3.8%)
No. patients with at least one GF**, n (%)	289 (8.5%)	143 (7.2%)	72 (9.8%)	39 (11.1%)	20 (7.7%)	15 (19%)
- with GF, alive	166 (4.9%)	117 (5.9%)	27 (3.7%)	8 (2.3%)	1 (0.4%)	13 (16.5%)
- with GF -> death	69 (2%)	25 (1.3%)#	27 (3.7%)	11 (3.1%)	4 (1.5%)	2 (2.5%)
- with GF - related death	54 (1.6%)	1 (0.1%)	18 (2.5%)	20 (5.7%)	15 (5.8%)	0 (0%)
- death without GF	299 (8.8%)	103 (5.2%)	85 (11.6%)	76 (21.7%)	34 (13.1%)	1 (1.3%)
No. patients with any ID***	2504 (73.3 %)	1474 (73.9%)	541 (73.9%)	231 (65.8%)	190 (73.4%)	68 (86.1%)
- any proven/viral ID event	1811 (53 %)	1033 (51.8%)	401 (54.8%)	184 (52.4%)	140 (54.1%)	53 (67.1%)
- any incident cancer other than skin	235 (6.9 %)	115 (5.8%)	79 (10.8%)	24 (6.8%)	14 (5.4%)	3 (3.8%)
- any incident skin cancer	290 (8.5 %)	199 (10%)	34 (4.6%)	33 (9.4%)	19 (7.3%)	5 (6.3%)

* IQR: interquartile range

** GF: graft failure

*** ID: infectious disease event

Out of 25 patients that had a Kidney Tpx and a GF, 4 patients had a re or second Tpx and died later on and 21 patients died after GF without a re or second Tpx. In Chapter "Mortality", patients with GF but without re or second Tpx are censored for mortality at the time point of GF.

Remark: 'Total' refers to the total number of patients with Tpx presented in this table.

3.2 STCS patient enrolment over time

For the recruitment activity over time, patient enrolment in STCS from May 2008 till December 2015 is depicted quarterly.

Figure 1: Quarterly overall patient enrolment

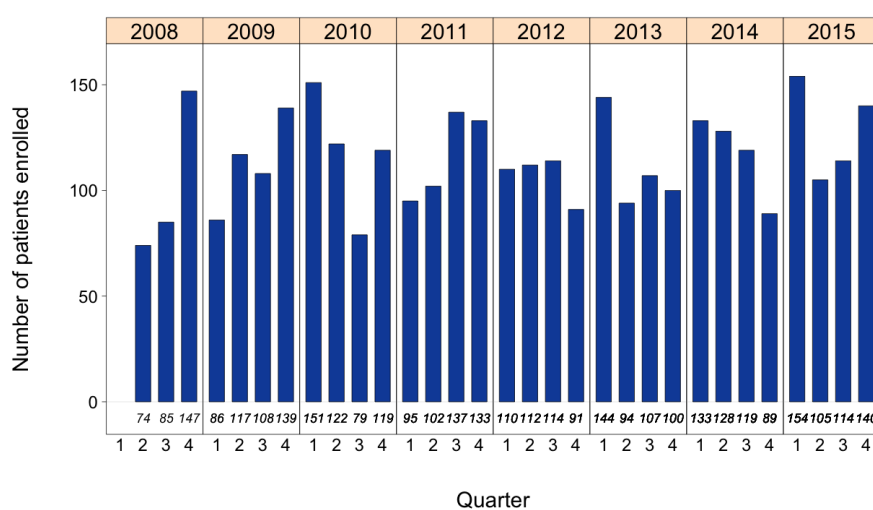


Figure 2: Quarterly patient enrolment by donor type

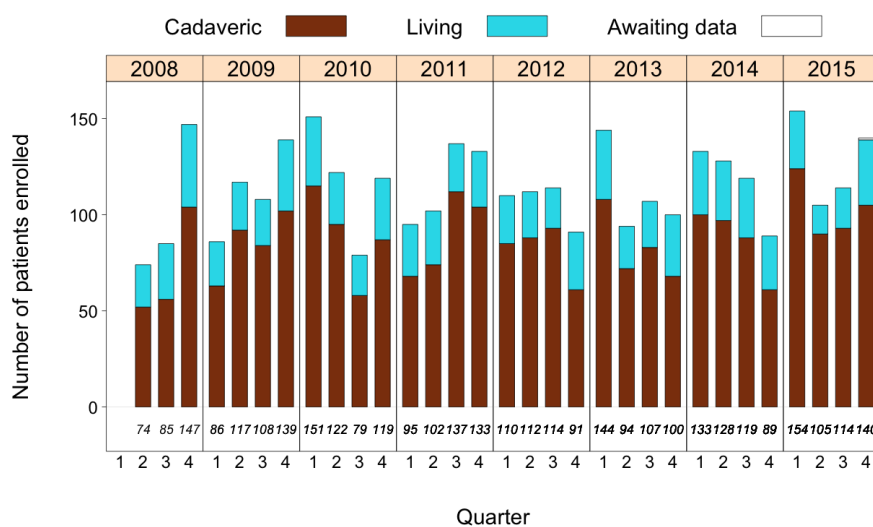


Figure 3: Cumulative overall patient enrolment

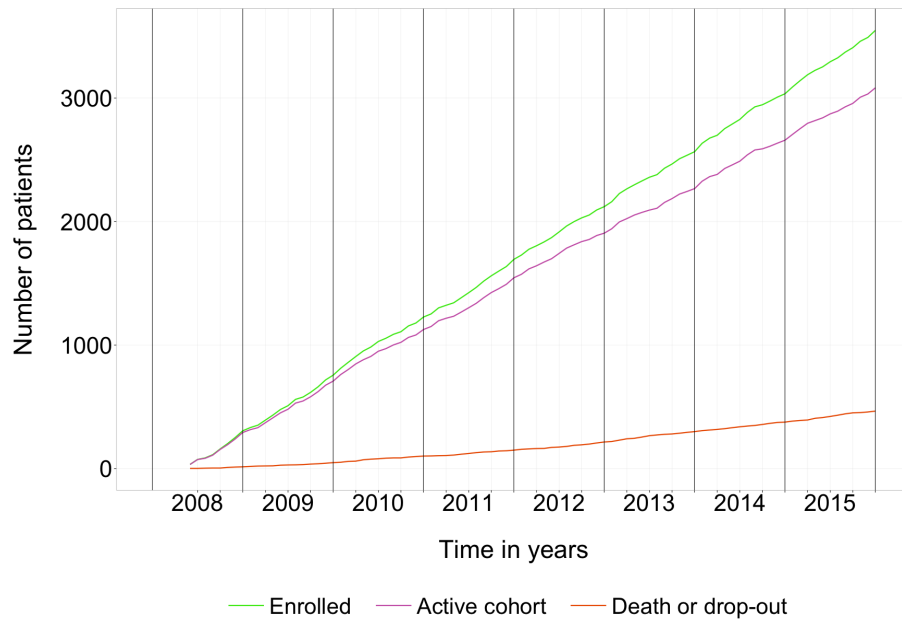


Figure 4: Cumulative overall patient enrolment by Tpx type

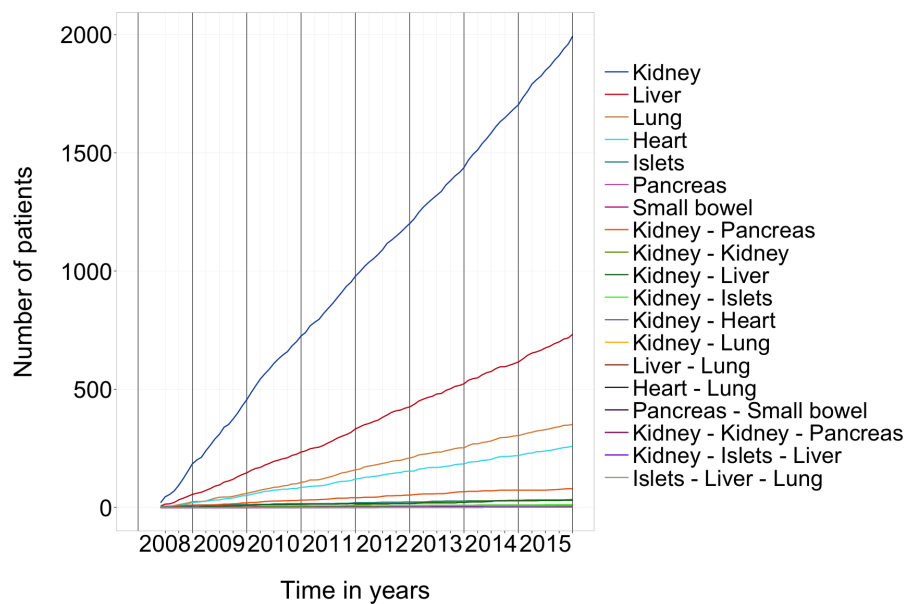
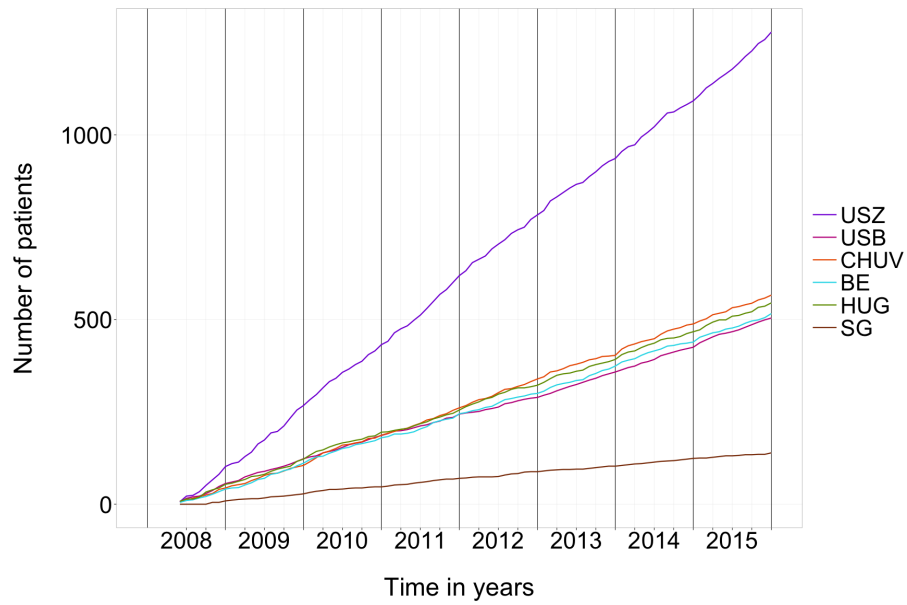


Figure 5: Cumulative overall patient enrolment by centre



Remark: Universitätsspital Zürich (USZ), Universitätsspital Basel (USB), Centre Hospitalier Universitaire Vaudois Lausanne (CHUV), Inselspital Bern (BE), Hôpitaux Universitaires de Genève (HUG), Kantonsspital St. Gallen (SG)

3.3 Transplantation activities by centre

Figure 6: Number of patients enrolled

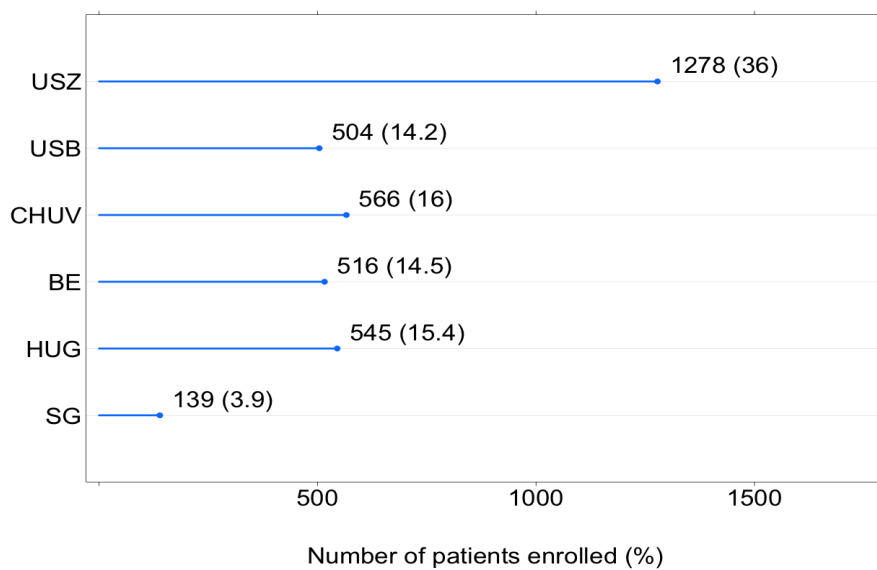


Figure 7: Number of transplanted organs

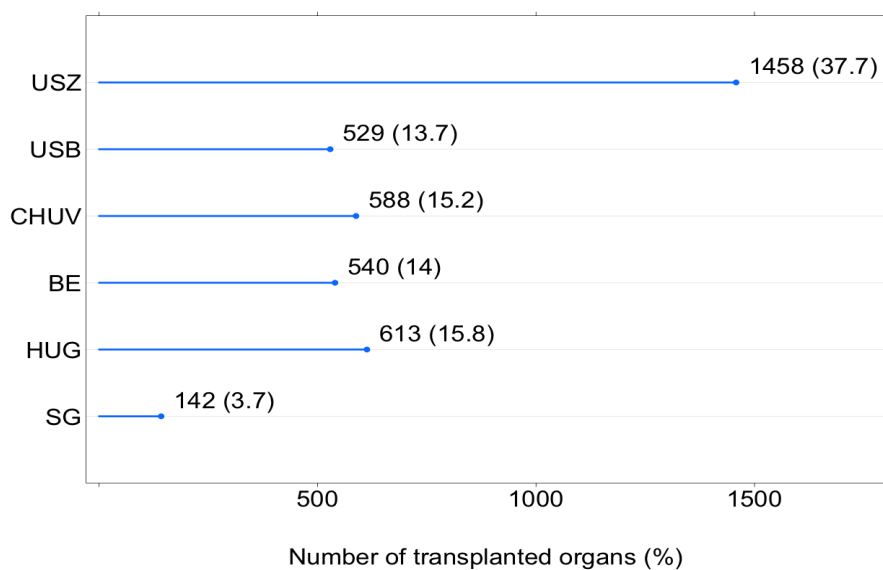
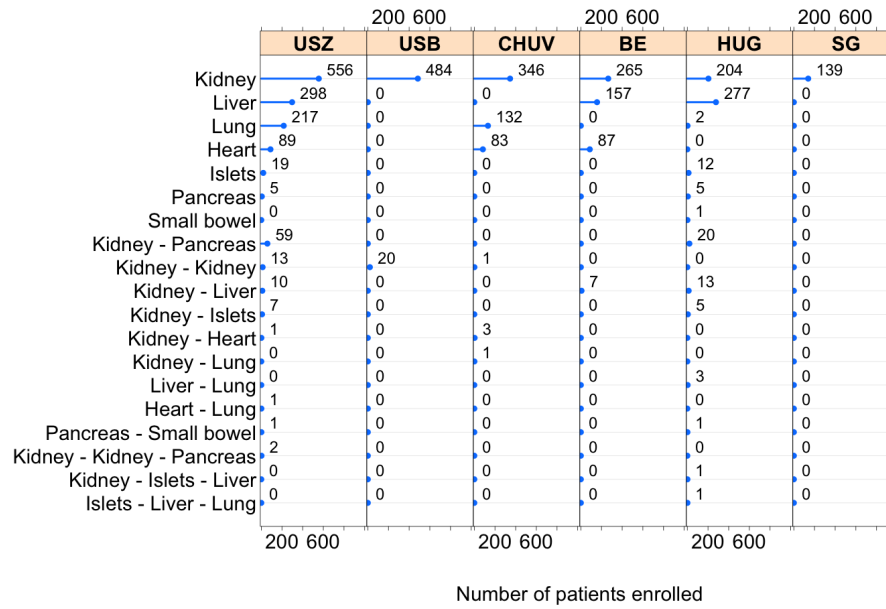


Figure 8: Number of patients enrolled by Tpx type



3.4 Kidney transplantations by centre

Figure 9: Number of patients with first single kidney Tpx

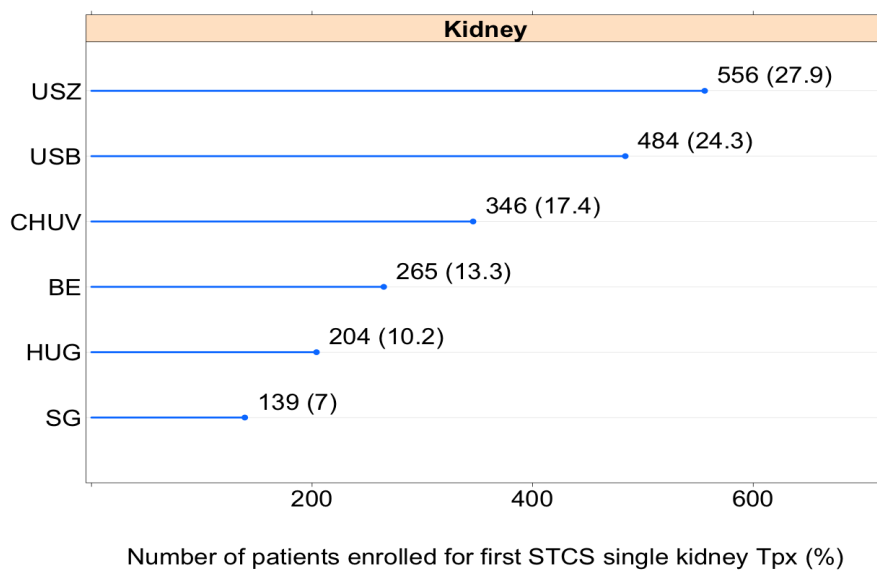
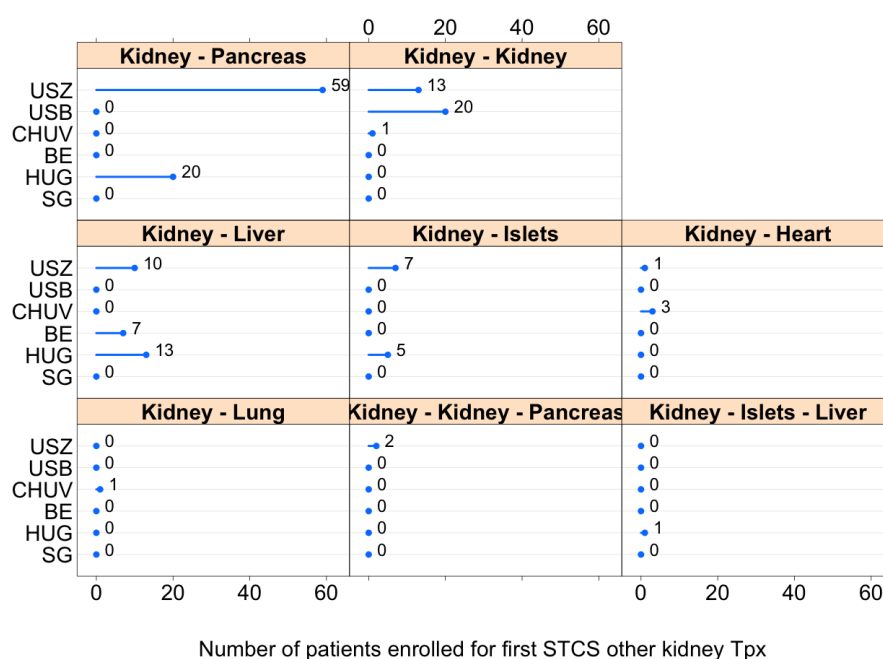


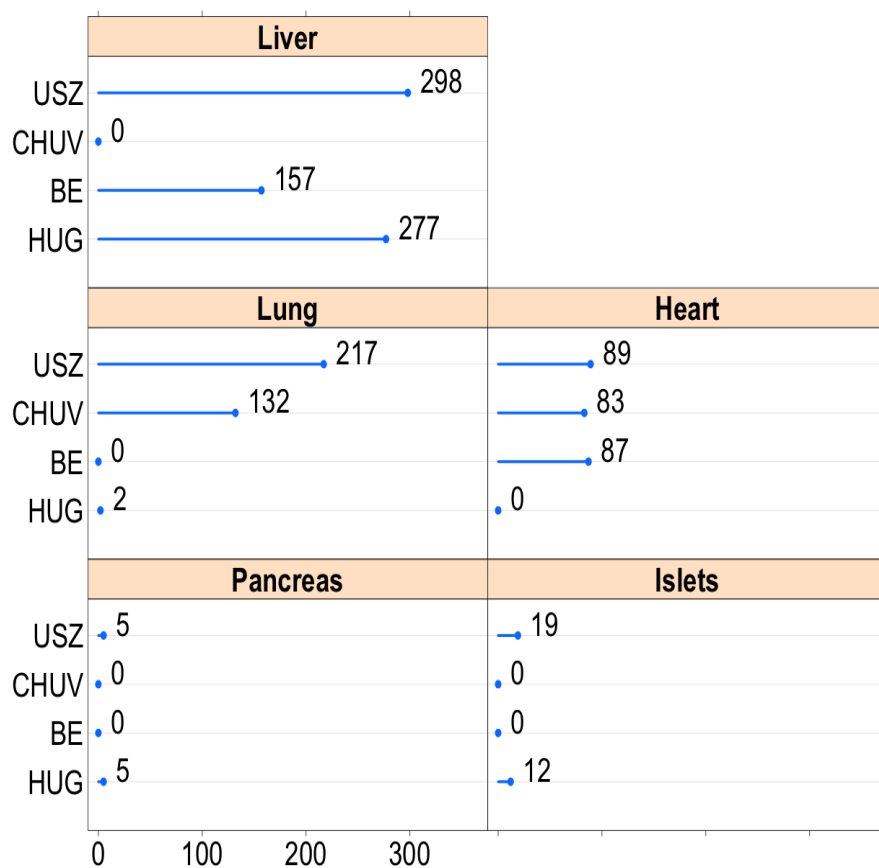
Figure 10: Number of patients with other kidney Tpx



3.5 Transplantations other than kidney by centre

Data from following rare Tpx are not shown: Small bowel (1, HUG), Liver - Lung (3, HUG), Heart - Lung (1, USZ), Pancreas - Small bowel (1 each in USZ and HUG) and Islets - Liver - Lung (1, HUG).

Figure 11: Number of patients with first STCS liver, lung, heart, pancreas or islets Tpx



Number of patients enrolled for first
STCS heart, liver, lung, pancreas or islets Tpx

3.6 Single Kidney and Liver Tpx by donor type

Figures 12 and 13 show all STCS single kidney and liver Tpx by donor type. Figures 14 and 15 present proportions of donor types in all single kidney and liver Tpx within centres.

Figure 12: Number of single kidney Tpx

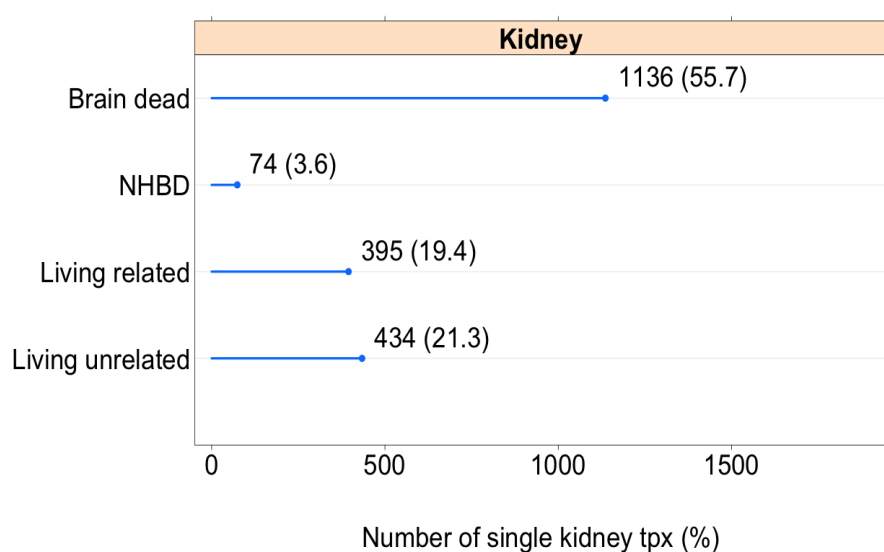


Figure 13: Number of single liver Tpx

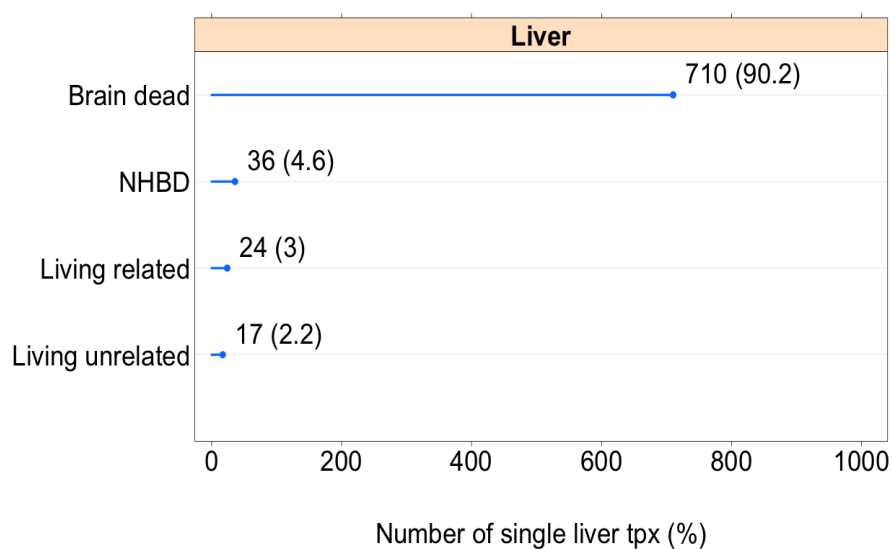
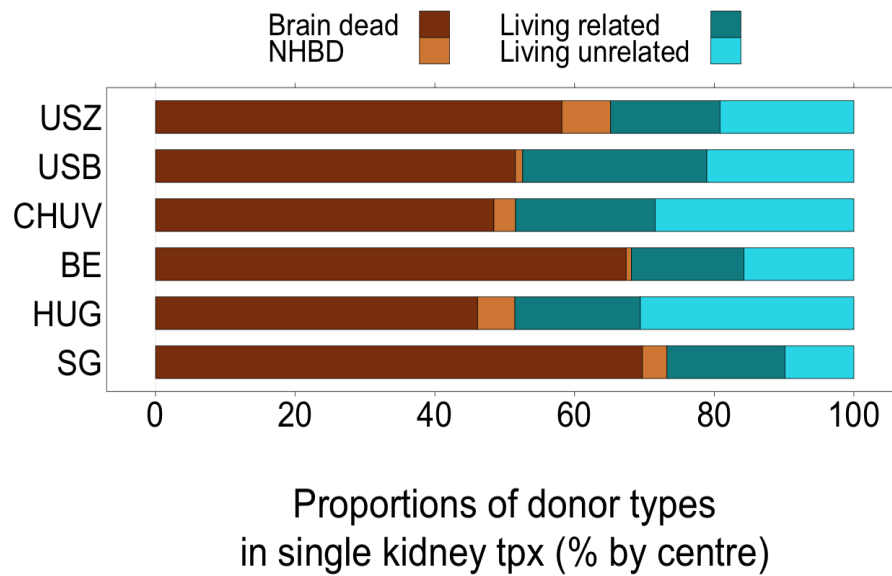
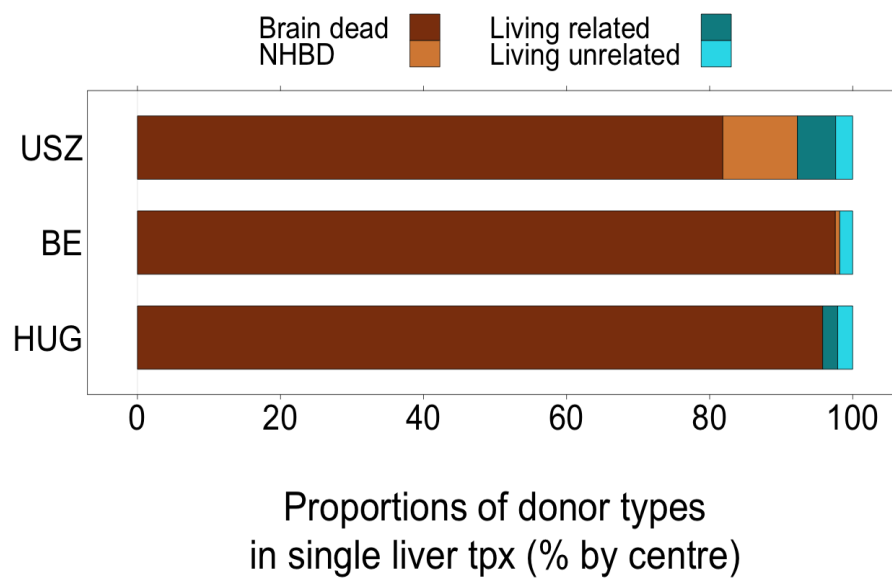


Figure 14: Proportions of donor types in all single kidney Tpx



Remark: The missing record is not shown (see Figure 12).

Figure 15: Proportions of donor types in all single liver Tpx



4 Consent status

Patients in STCS may change their consent status. Figures 16 and 17 show patients' current consent status (by centre). Table 6 shows patients' status update (from enrolment (row, 'E') to a more current date (column, 'C')).

Figure 16: Current patients' consent status

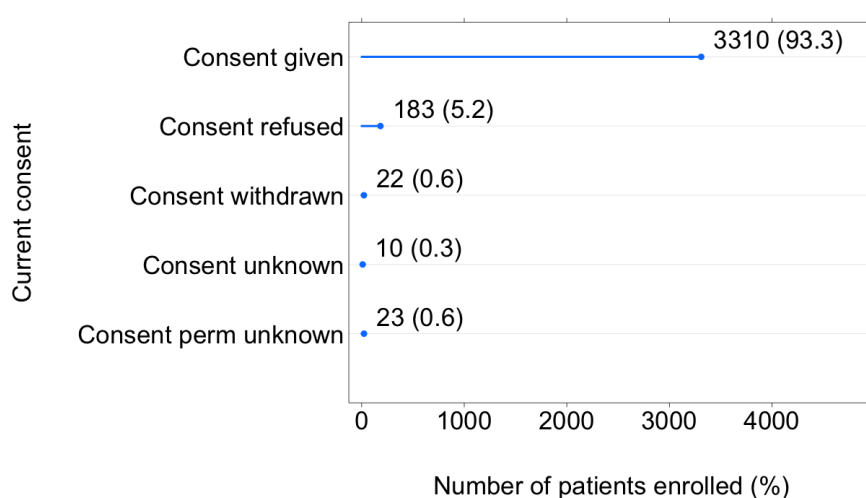


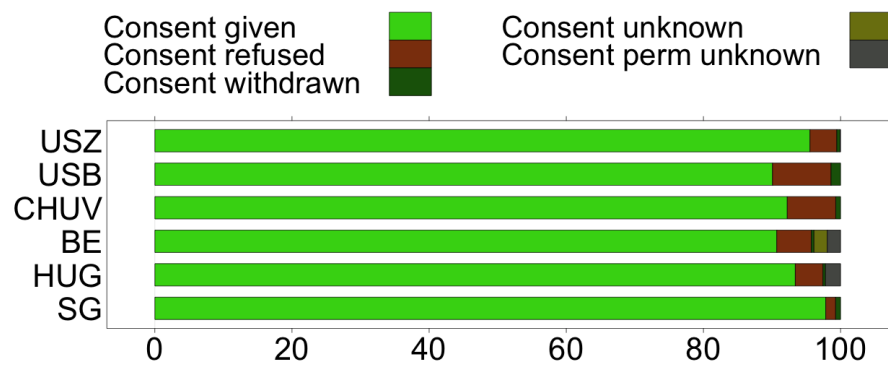
Table 6: Patients' current consent against consent status at enrolment

	Total	C-Given	C-Refused	C-Withdrawn	C-Unknown	C-Perm unknown
Total	3548	3310	183	22	10	23
E-Given	3309	3287	0	22	0	0
E-Refused	186	4	182	0	0	0
E-Withdrawn	0	0	0	0	0	0
E-Unknown	34	19	1	0	10	4
E-Perm unknown	19	0	0	0	0	19

Remark: 'C' means 'current consent status' and 'E' denotes the consent status at enrolment.

In Figure 17, current patients' status (i. e. last known consent status) is given proportionally within each centre.

Figure 17: Current patients' consent status by centre



Proportions of current
consent types for patients (% by centre)

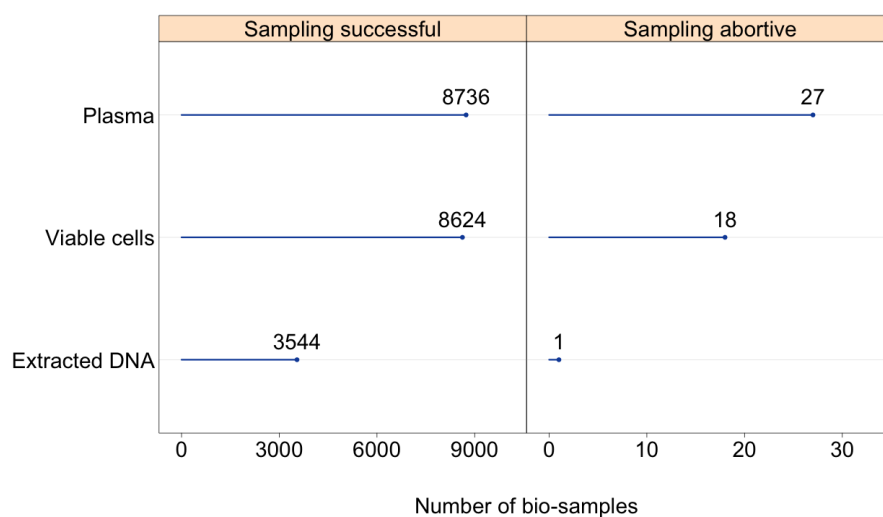
5 Bio-samples

Table 7 presents the number of patients with and without bio-samples. The consent status for patients with at least one bio-sample is at the time point of the first drawn bio-sample. Consent status at enrolment is taken for patients without any bio-samples.

Table 7: Number of patients with bio-samples

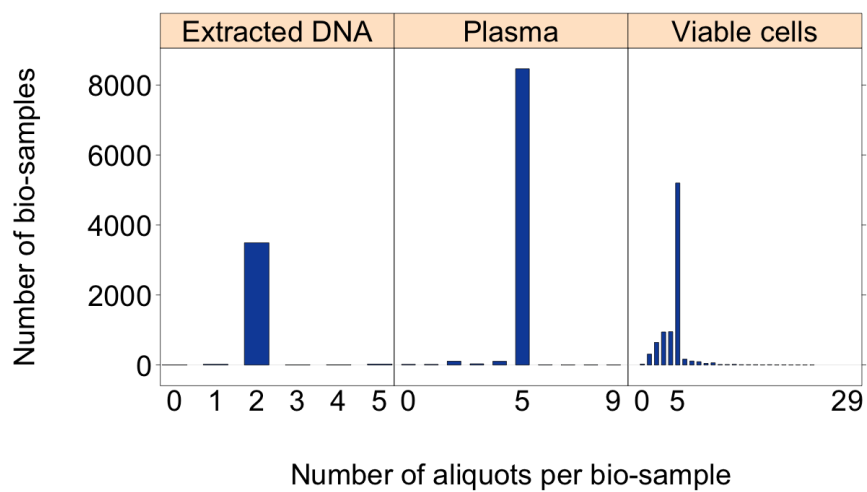
	Total	Sample (%)	No sample (%)
Total	3548	3300 93.0	248 7.0
Consent given	3316	3283 99.0	33 1.0
Consent refused	185	0 0.0	185 100.0
Consent unknown	28	12 42.9	16 57.1
Consent perm unknown	19	5 26.3	14 73.7

Figure 18: Number of bio-samples in STCS



Remark: Sampling is defined as abortive if no aliquots were stored.

Figure 19: Distribution of number of aliquots by sample type



6 Infectious disease events

In Tables 8 and 9, descriptive information about patients with infectious disease (ID) events and types of ID events are given. Table 10 and Figure 20 give ID event rates by Tpx and pathogen type.

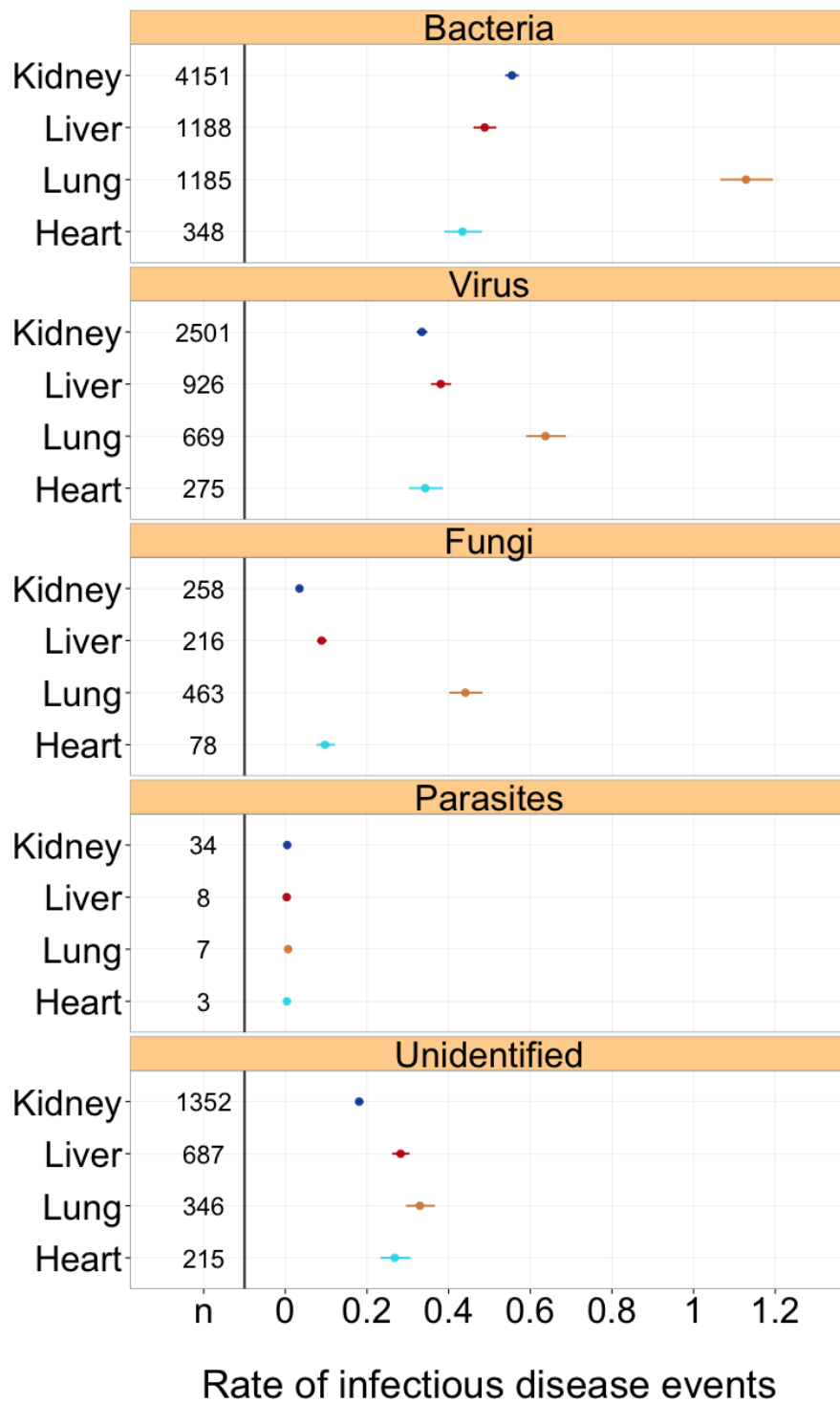
Table 8: Patients with infectious disease events

	N	% (sd)
Total number of patients	3548	
Patients with at least one ID event	2606	73.4%
- Number of ID events, mean (sd)	6.2	(5.7)
Patients with at least one proven/viral ID event	1890	53.3%
- Number of proven/viral ID events, mean (sd)	3.1	(2.9)

Table 9: Summary of infectious disease events

	N	(%)
Total number of ID events	16094	100.0
Proven disease	5693	35.4
Viral syndrome	111	0.7
Primary infection	44	0.3
Probable disease	3509	21.8
Asymptomatic	2605	16.2
Colonization	3741	23.2
Possible disease	49	0.3
Fever neutropenia	16	0.1
Information missing	326	2.0

Figure 20: Rate of infectious disease events by pathogen and Tpx type



Remark: The rate of ID events is defined as the number of ID events per year of observation time. It is calculated as number of ID events divided by the total observation time of patients at risk. Some backlog in the reporting of ID events cannot be excluded.

Table 10: Rate of infectious disease events by pathogen and Tpx type

Tpx	Pathogen	No. ID events	ID event rate	(95% CI)
Kidney	Bacteria	4151	0.56	(0.54, 0.57)
	Virus	2501	0.33	(0.32, 0.35)
	Fungi	258	0.03	(0.03, 0.04)
	Parasites	34	0	(0, 0.01)
	Unidentified	1352	0.18	(0.17, 0.19)
	Total	8296	1.11	(1.09, 1.13)
Liver	Bacteria	1188	0.49	(0.46, 0.52)
	Virus	926	0.38	(0.36, 0.41)
	Fungi	216	0.09	(0.08, 0.1)
	Parasites	8	0	(0, 0.01)
	Unidentified	687	0.28	(0.26, 0.3)
	Total	3025	1.24	(1.2, 1.29)
Lung	Bacteria	1185	1.13	(1.07, 1.19)
	Virus	669	0.64	(0.59, 0.69)
	Fungi	463	0.44	(0.4, 0.48)
	Parasites	7	0.01	(0, 0.01)
	Unidentified	346	0.33	(0.3, 0.37)
	Total	2670	2.54	(2.45, 2.64)
Heart	Bacteria	348	0.43	(0.39, 0.48)
	Virus	275	0.34	(0.3, 0.39)
	Fungi	78	0.1	(0.08, 0.12)
	Parasites	3	0	(0, 0.01)
	Unidentified	215	0.27	(0.23, 0.31)
	Total	919	1.15	(1.07, 1.22)

7 Follow-up

Percentages in Figures 21 and 22 have to be read as proportions of Tpx for which at least the 6 month or the 12 month FUP visit was performed.

Figure 21: Number of Tpx with 6 month FUP

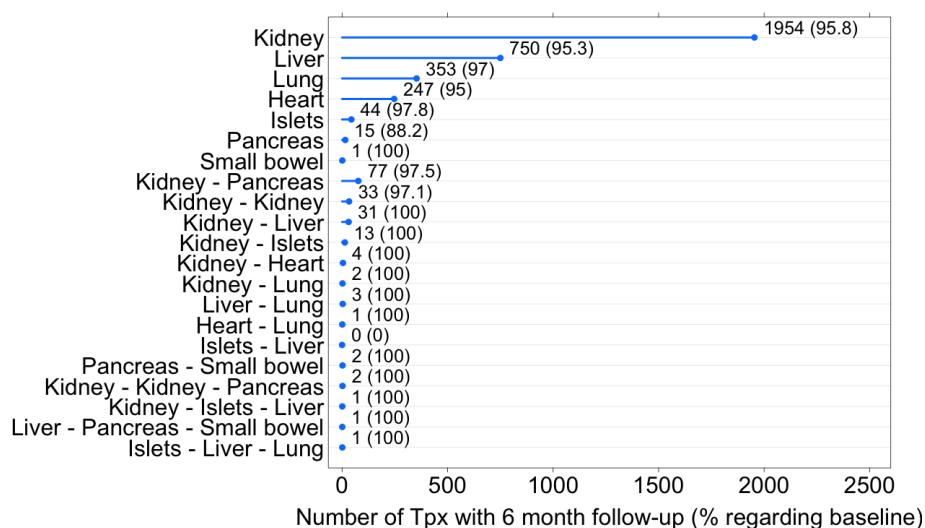
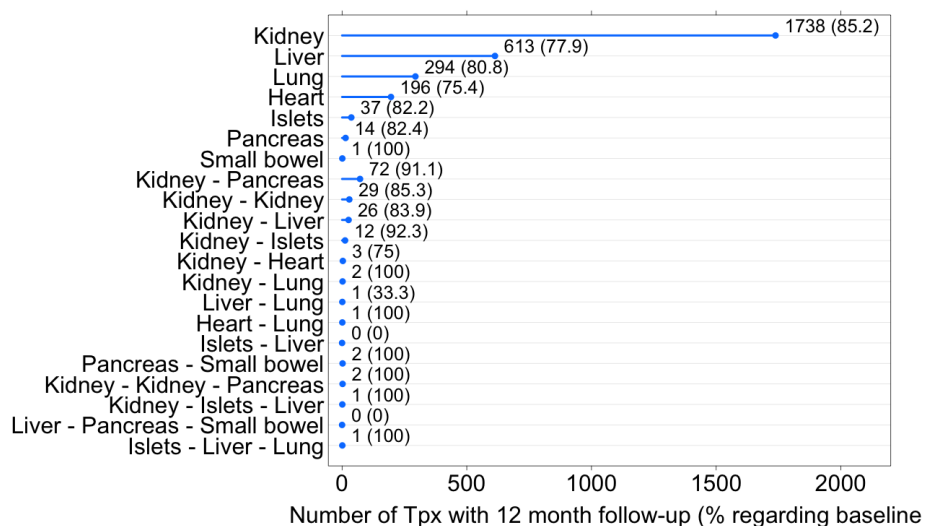


Figure 22: Number of Tpx with 12 month FUP



8 Mortality

In the following, survival rate estimates can only be descriptively interpreted since the precision is low due to the small number of patients at risk at the end of FUP. In Figure 23, the 95%-confidence interval (CI) is given. Furthermore, survival rate estimates are not adjusted for potential risk factors (in Figures and Tables).

8.1 Overall

Table 11: Follow-up information of patients

	Follow-up
Median follow-up duration (years)	3.34
IQR (years)	1.5 - 5.48
Maximal follow-up (years)*	7.95
Number of deaths**	444
Patients with (at least one) graft failure	302
Patients lost to follow-up***	32

* Time period from 2nd of May 2008 to 13th of April 2016

** 21 deaths were observed in Kidney patients with GF and no re or second Tpx following GF. Due to inconsistencies in data collection for death after GF in renal TPX recipients across centres, those death cases are removed for mortality shown in Table 13 and Figures 23.

*** More details in Table 12.

Table 12: Number of patients who dropped out by Tpx type

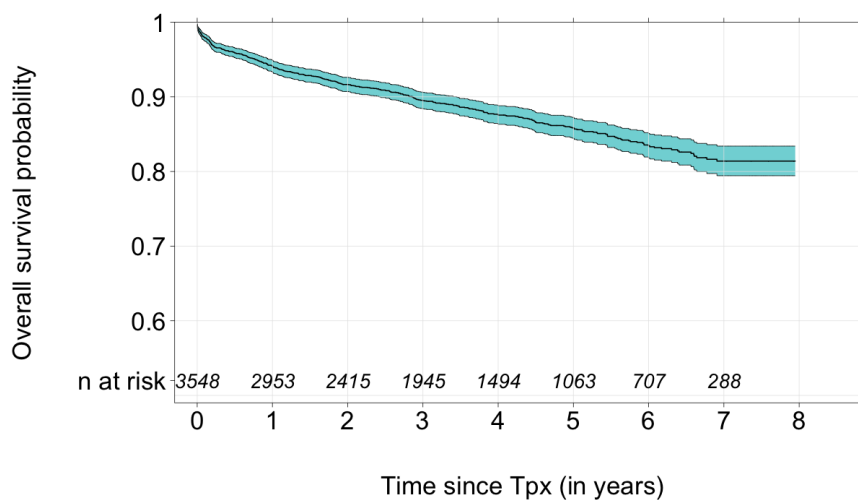
	BE	CHUV	HUG	SG	USB	USZ	Sum
Enrolled, N	516	566	545	139	504	1278	3548
Dropped out, N (%)	3 (0.6%)	6 (1.1%)	4 (0.7%)	0 (0%)	4 (0.8%)	15 (1.2%)	32 (0.9%)
- Heart	1	-	-	-	-	2	3
- Islets	-	-	-	-	-	1	1
- Kidney	2	4	1	-	4	6	17
- Kidney - Pancreas	-	-	-	-	-	2	2
- Liver	-	-	3	-	-	4	7
- Lung	-	2	-	-	-	-	2

Table 13: Overall mortality

Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Baseline	0.0	-	3548	0
1 month	1.9	(1.5, 2.4)	3450	68
6 months	4.1	(3.4, 4.8)	3250	144
1 year(s)	5.9	(5.1, 6.7)	2953	202
2 year(s)	8.3	(7.4, 9.3)	2415	273
3 year(s)	10.5	(9.4, 11.6)	1945	324
4 year(s)	12.4	(11.2, 13.7)	1494	361
5 year(s)	14.2	(12.8, 15.5)	1063	386
6 year(s)	16.6	(14.9, 18.2)	707	411
7 year(s)	18.6	(16.6, 20.6)	288	423
8 year(s)	18.6	(16.6, 20.6)	-	423
Overall	18.6	(16.6, 20.6)	-	423

Remarks: 'Cum.' means 'Cumulative'. The 95%-CI is given for 'Mortality'. The time point 'Overall' refers to the maximal follow-up time in the STCS (from 2nd of May in 2008 to 13th of April 2016). Patients that had a Kidney or Kidney-Kidney Tpx and have a GF and no re or second Tpx are censored for mortality at the time point of GF.

Figure 23: Overall survival

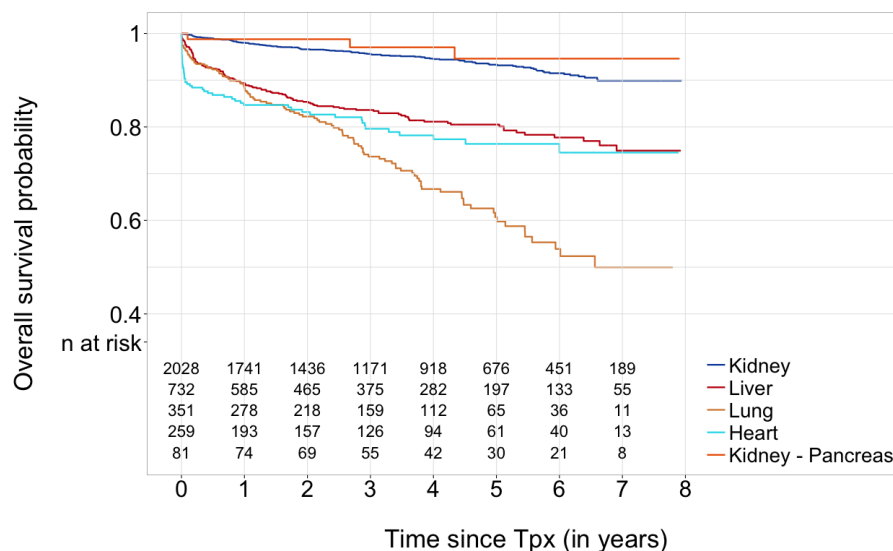


8.2 Mortality by Tpx

For the issue of clarity, Tpx types performed in STCS are separated in frequent and rare Tpx scenarios regarding their frequency of occurrence. Rare Tpx include STCS Tpx types that are performed less than 50 times in the defined period. Figures and Tables are thus potentially given per frequent and rare Tpx (see Appendix C).

Patients that had a Kidney or Kidney-Kidney Tpx and have a GF and no re or second Tpx are censored for mortality at the time point of GF.

Figure 24: Overall survival for frequent Tpx types



Remark: 34 Kidney-Kidney Tpx are included in Kidney Tpx. 2 Kidney-Kidney-Pancreas are included in Kidney-Pancreas.

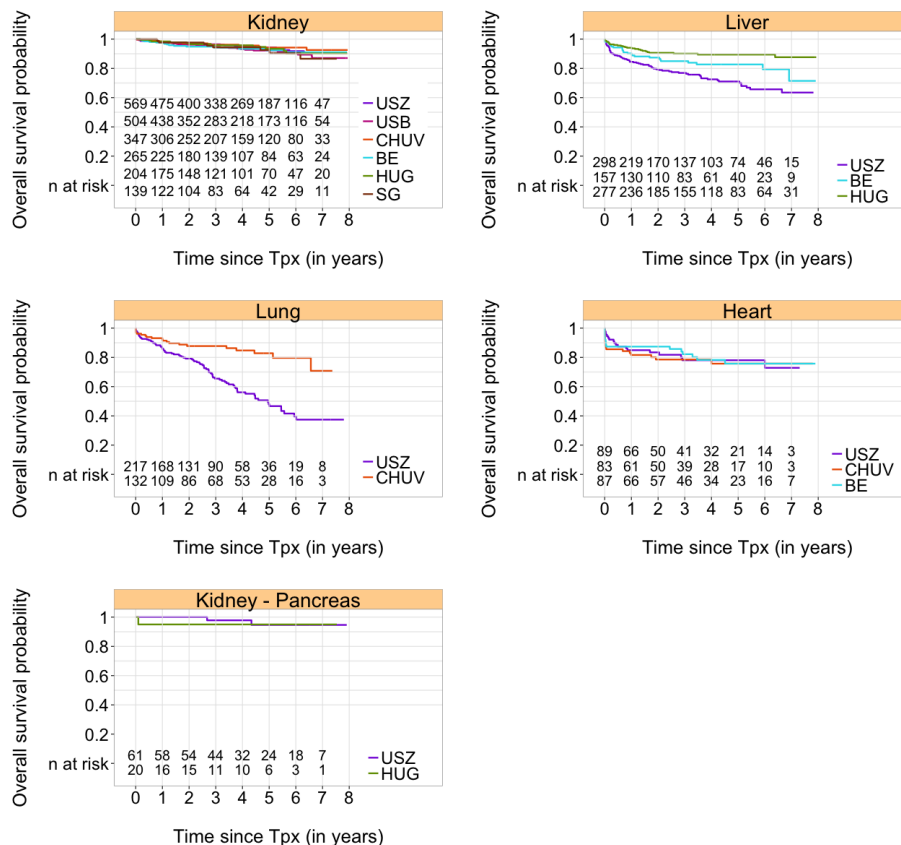
Table 14: Overall mortality by Tpx type

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Kidney	Baseline	0.0	-	2028	0
-	1 month	0.1	(0, 0.3)	1995	3
-	6 months	1.1	(0.6, 1.5)	1893	21
-	1 year(s)	2.0	(1.4, 2.6)	1741	38
-	2 year(s)	3.4	(2.5, 4.2)	1436	61
-	3 year(s)	4.5	(3.4, 5.4)	1171	75
-	4 year(s)	5.5	(4.3, 6.6)	918	86
-	5 year(s)	6.7	(5.3, 8)	676	96
-	6 year(s)	8.5	(6.8, 10.2)	451	107
-	7 year(s)	10.1	(8, 12.2)	189	113
-	8 year(s)	10.1	(8, 12.2)	-	113
-	Overall	10.1	(8, 12.2)	-	113
Liver	Baseline	0.0	-	732	0
-	1 month	2.9	(1.7, 4.1)	711	21
-	6 months	7.5	(5.6, 9.4)	652	55
-	1 year(s)	10.6	(8.3, 12.9)	585	76
-	2 year(s)	14.6	(11.9, 17.3)	465	100
-	3 year(s)	16.4	(13.5, 19.2)	375	109
-	4 year(s)	18.9	(15.7, 22)	282	119
-	5 year(s)	19.5	(16.2, 22.7)	197	121
-	6 year(s)	22.3	(18.3, 26)	133	127
-	7 year(s)	25.1	(20, 29.8)	55	130
-	8 year(s)	25.1	(20, 29.8)	-	130
-	Overall	25.1	(20, 29.8)	-	130
Lung	Baseline	0.0	-	351	0
-	1 month	3.7	(1.7, 5.7)	338	13
-	6 months	7.7	(4.9, 10.5)	319	27
-	1 year(s)	11.7	(8.2, 15)	278	40
-	2 year(s)	17.8	(13.5, 21.9)	218	58
-	3 year(s)	26.4	(21, 31.3)	159	78
-	4 year(s)	33.3	(27.1, 38.9)	112	91
-	5 year(s)	39.3	(32.2, 45.7)	65	99
-	6 year(s)	46.1	(37.6, 53.5)	36	105
-	7 year(s)	50.0	(40, 58.3)	11	107
-	8 year(s)	50.0	(40, 58.3)	-	107
-	Overall	50.0	(40, 58.3)	-	107
Heart	Baseline	0.0	-	259	0
-	1 month	10.4	(6.6, 14.1)	232	27
-	6 months	13.2	(8.9, 17.2)	217	34
-	1 year(s)	15.3	(10.8, 19.6)	193	39
-	2 year(s)	16.8	(12, 21.4)	157	42
-	3 year(s)	20.4	(14.9, 25.5)	126	48
-	4 year(s)	22.6	(16.7, 28.1)	94	51
-	5 year(s)	23.6	(17.4, 29.4)	61	52
-	6 year(s)	25.5	(18.3, 32)	40	53
-	7 year(s)	25.5	(18.3, 32)	13	53
-	8 year(s)	25.5	(18.3, 32)	-	53
-	Overall	25.5	(18.3, 32)	-	53
Kidney - Pancreas	Baseline	0.0	-	81	0
-	1 month	0.0	-	81	0

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	6 months	1.2	(0, 3.6)	78	1
-	1 year(s)	1.2	(0, 3.6)	74	1
-	2 year(s)	1.2	(0, 3.6)	69	1
-	3 year(s)	3.0	(0, 7)	55	2
-	4 year(s)	3.0	(0, 7)	42	2
-	5 year(s)	5.4	(0, 11.4)	30	3
-	6 year(s)	5.4	(0, 11.4)	21	3
-	7 year(s)	5.4	(0, 11.4)	8	3
-	8 year(s)	5.4	(0, 11.4)	-	3
-	Overall	5.4	(0, 11.4)	-	3

8.3 Mortality by Tpx and centre

Figure 25: Overall survival for frequent Tpx



Remarks:

34 Kidney-Kidney Tpx (13 (USZ), 20 (USB) and 1 (CHUV)) are included in Kidney Tpx. 2 Kidney-Kidney-Pancreas Tpx (USZ) are included in Kidney-Pancreas Tpx. 2 Lung tpx in HUG are not included in this graph.

Patients that had a Kidney or Kidney-Kidney Tpx and have a GF and no re or second Tpx are censored for mortality at the time point of GF.

Table 15: Overall mortality by frequent Tpx type and centre

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Kidney - USZ	Baseline	0.0	-	569	0
-	1 month	0.2	(0, 0.5)	556	1
-	6 months	1.4	(0.4, 2.4)	520	8
-	1 year(s)	2.0	(0.8, 3.2)	475	11
-	2 year(s)	3.0	(1.5, 4.5)	400	15
-	3 year(s)	3.5	(1.8, 5.2)	338	17
-	4 year(s)	4.8	(2.7, 6.9)	269	21
-	5 year(s)	5.7	(3.3, 8)	187	23
-	6 year(s)	8.2	(4.8, 11.5)	116	27
-	7 year(s)	9.2	(5.2, 12.9)	47	28
-	8 year(s)	9.2	(5.2, 12.9)	-	28
-	Overall	9.2	(5.2, 12.9)	-	28
Kidney - USB	Baseline	0.0	-	504	0
-	1 month	0.2	(0, 0.6)	498	1
-	6 months	1.2	(0.2, 2.2)	477	6
-	1 year(s)	2.1	(0.8, 3.4)	438	10
-	2 year(s)	3.8	(2, 5.6)	352	17
-	3 year(s)	5.0	(2.9, 7.1)	283	21
-	4 year(s)	6.9	(4.2, 9.5)	218	26
-	5 year(s)	7.8	(4.8, 10.7)	173	28
-	6 year(s)	9.8	(6.1, 13.3)	116	31
-	7 year(s)	12.9	(7.8, 17.8)	54	34
-	8 year(s)	12.9	(7.8, 17.8)	-	34
-	Overall	12.9	(7.8, 17.8)	-	34
Kidney - CHUV	Baseline	0.0	-	347	0
-	1 month	0.3	(0, 0.9)	344	1
-	6 months	0.6	(0, 1.4)	332	2
-	1 year(s)	1.5	(0.2, 2.8)	306	5
-	2 year(s)	2.9	(1, 4.7)	252	9
-	3 year(s)	3.8	(1.5, 6)	207	11
-	4 year(s)	4.4	(1.8, 6.8)	159	12
-	5 year(s)	5.8	(2.6, 8.9)	120	14
-	6 year(s)	5.8	(2.6, 8.9)	80	14
-	7 year(s)	7.4	(2.9, 11.8)	33	15
-	8 year(s)	7.4	(2.9, 11.8)	-	15
-	Overall	7.4	(2.9, 11.8)	-	15
Kidney - BE	Baseline	0.0	-	265	0
-	1 month	0.0	-	262	0
-	6 months	1.5	(0, 3)	242	4
-	1 year(s)	2.4	(0.5, 4.2)	225	6
-	2 year(s)	5.1	(2.2, 7.9)	180	12
-	3 year(s)	5.8	(2.6, 8.8)	139	13
-	4 year(s)	6.6	(3.1, 10)	107	14
-	5 year(s)	7.7	(3.6, 11.6)	84	15
-	6 year(s)	8.9	(4.2, 13.4)	63	16
-	7 year(s)	8.9	(4.2, 13.4)	24	16
-	8 year(s)	8.9	(4.2, 13.4)	-	16
-	Overall	8.9	(4.2, 13.4)	-	16
Kidney - HUG	Baseline	0.0	-	204	0
-	1 month	0.0	-	197	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	6 months	0.5	(0, 1.5)	189	1
-	1 year(s)	1.6	(0, 3.3)	175	3
-	2 year(s)	2.8	(0.3, 5.2)	148	5
-	3 year(s)	4.2	(1.1, 7.3)	121	7
-	4 year(s)	4.2	(1.1, 7.3)	101	7
-	5 year(s)	6.6	(2, 10.9)	70	9
-	6 year(s)	9.8	(3.5, 15.7)	47	11
-	7 year(s)	9.8	(3.5, 15.7)	20	11
-	8 year(s)	9.8	(3.5, 15.7)	-	11
-	Overall	9.8	(3.5, 15.7)	-	11
Kidney - SG	Baseline	0.0	-	139	0
-	1 month	0.0	-	138	0
-	6 months	0.0	-	133	0
-	1 year(s)	2.3	(0, 4.9)	122	3
-	2 year(s)	2.3	(0, 4.9)	104	3
-	3 year(s)	5.7	(1.1, 10)	83	6
-	4 year(s)	5.7	(1.1, 10)	64	6
-	5 year(s)	7.4	(1.7, 12.9)	42	7
-	6 year(s)	9.6	(2.4, 16.3)	29	8
-	7 year(s)	13.4	(3, 22.7)	11	9
-	8 year(s)	13.4	(3, 22.7)	-	9
-	Overall	13.4	(3, 22.7)	-	9
Liver - USZ	Baseline	0.0	-	298	0
-	1 month	4.4	(2, 6.7)	285	13
-	6 months	11.4	(7.7, 15)	253	34
-	1 year(s)	15.5	(11.2, 19.6)	219	45
-	2 year(s)	20.6	(15.7, 25.3)	170	57
-	3 year(s)	23.1	(17.8, 28.1)	137	62
-	4 year(s)	27.5	(21.5, 33.1)	103	69
-	5 year(s)	29.0	(22.7, 34.7)	74	71
-	6 year(s)	34.3	(26.7, 41.1)	46	76
-	7 year(s)	36.5	(27.9, 44.1)	15	77
-	8 year(s)	36.5	(27.9, 44.1)	-	77
-	Overall	36.5	(27.9, 44.1)	-	77
Liver - BE	Baseline	0.0	-	157	0
-	1 month	1.9	(0, 4)	154	3
-	6 months	5.7	(2, 9.3)	144	9
-	1 year(s)	9.8	(4.9, 14.3)	130	15
-	2 year(s)	12.6	(7.1, 17.8)	110	19
-	3 year(s)	15.1	(9, 20.7)	83	22
-	4 year(s)	17.3	(10.6, 23.5)	61	24
-	5 year(s)	17.3	(10.6, 23.5)	40	24
-	6 year(s)	20.6	(11.2, 29)	23	25
-	7 year(s)	28.6	(9.6, 43.5)	9	26
-	8 year(s)	28.6	(9.6, 43.5)	-	26
-	Overall	28.6	(9.6, 43.5)	-	26
Liver - HUG	Baseline	0.0	-	277	0
-	1 month	1.8	(0.2, 3.4)	272	5
-	6 months	4.3	(1.9, 6.7)	255	12
-	1 year(s)	5.9	(3.1, 8.7)	236	16
-	2 year(s)	9.4	(5.7, 12.9)	185	24
-	3 year(s)	9.9	(6.1, 13.6)	155	25

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	4 year(s)	10.6	(6.6, 14.4)	118	26
-	5 year(s)	10.6	(6.6, 14.4)	83	26
-	6 year(s)	10.6	(6.6, 14.4)	64	26
-	7 year(s)	12.4	(7, 17.4)	31	27
-	8 year(s)	12.4	(7, 17.4)	-	27
-	Overall	12.4	(7, 17.4)	-	27
Lung - USZ	Baseline	0.0	-	217	0
-	1 month	3.2	(0.8, 5.5)	210	7
-	6 months	8.3	(4.6, 11.9)	196	18
-	1 year(s)	13.7	(9, 18.3)	168	29
-	2 year(s)	20.8	(15, 26.3)	131	42
-	3 year(s)	34.5	(26.9, 41.4)	90	62
-	4 year(s)	43.9	(35.2, 51.4)	58	73
-	5 year(s)	52.0	(42.3, 60.1)	36	80
-	6 year(s)	60.4	(49, 69.2)	19	85
-	7 year(s)	62.6	(50.7, 71.6)	8	86
-	8 year(s)	62.6	(50.7, 71.6)	-	86
-	Overall	62.6	(50.7, 71.6)	-	86
Lung - CHUV	Baseline	0.0	-	132	0
-	1 month	3.8	(0.5, 7)	127	5
-	6 months	6.1	(1.9, 10.1)	122	8
-	1 year(s)	7.7	(3, 12.2)	109	10
-	2 year(s)	12.3	(6.2, 17.9)	86	15
-	3 year(s)	12.3	(6.2, 17.9)	68	15
-	4 year(s)	15.2	(8, 21.9)	53	17
-	5 year(s)	17.2	(9, 24.6)	28	18
-	6 year(s)	20.4	(10.1, 29.5)	16	19
-	7 year(s)	29.2	(8.1, 45.5)	3	20
-	8 year(s)	29.2	(8.1, 45.5)	-	20
-	Overall	29.2	(8.1, 45.5)	-	20
Lung - HUG	Baseline	0.0	-	2	0
-	1 month	50.0	(0, 87.5)	1	1
-	6 months	50.0	(0, 87.5)	1	1
-	1 year(s)	50.0	(0, 87.5)	1	1
-	2 year(s)	50.0	(0, 87.5)	1	1
-	3 year(s)	50.0	(0, 87.5)	1	1
-	4 year(s)	50.0	(0, 87.5)	1	1
-	5 year(s)	50.0	(0, 87.5)	1	1
-	6 year(s)	50.0	(0, 87.5)	1	1
-	7 year(s)	50.0	(0, 87.5)	-	1
-	8 year(s)	50.0	(0, 87.5)	-	1
-	Overall	50.0	(0, 87.5)	-	1
Heart - USZ	Baseline	0.0	-	89	0
-	1 month	4.5	(0.1, 8.7)	85	4
-	6 months	12.6	(5.3, 19.3)	73	11
-	1 year(s)	15.1	(7.2, 22.3)	66	13
-	2 year(s)	16.6	(8.2, 24.2)	50	14
-	3 year(s)	21.9	(11.8, 30.9)	41	17
-	4 year(s)	21.9	(11.8, 30.9)	32	17
-	5 year(s)	21.9	(11.8, 30.9)	21	17
-	6 year(s)	27.1	(12.6, 39.3)	14	18
-	7 year(s)	27.1	(12.6, 39.3)	3	18

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	8 year(s)	27.1	(12.6, 39.3)	-	18
-	Overall	27.1	(12.6, 39.3)	-	18
Heart - CHUV	Baseline	0.0	-	83	0
-	1 month	14.5	(6.5, 21.7)	71	12
-	6 months	14.5	(6.5, 21.7)	69	12
-	1 year(s)	18.4	(9.5, 26.4)	61	15
-	2 year(s)	21.5	(11.8, 30.1)	50	17
-	3 year(s)	21.5	(11.8, 30.1)	39	17
-	4 year(s)	24.3	(13.2, 33.9)	28	18
-	5 year(s)	24.3	(13.2, 33.9)	17	18
-	6 year(s)	24.3	(13.2, 33.9)	10	18
-	7 year(s)	24.3	(13.2, 33.9)	3	18
-	8 year(s)	24.3	(13.2, 33.9)	-	18
-	Overall	24.3	(13.2, 33.9)	-	18
Heart - BE	Baseline	0.0	-	87	0
-	1 month	12.6	(5.4, 19.4)	76	11
-	6 months	12.6	(5.4, 19.4)	75	11
-	1 year(s)	12.6	(5.4, 19.4)	66	11
-	2 year(s)	12.6	(5.4, 19.4)	57	11
-	3 year(s)	17.8	(8.7, 26.1)	46	14
-	4 year(s)	21.8	(11.3, 31)	34	16
-	5 year(s)	24.3	(12.8, 34.2)	23	17
-	6 year(s)	24.3	(12.8, 34.2)	16	17
-	7 year(s)	24.3	(12.8, 34.2)	7	17
-	8 year(s)	24.3	(12.8, 34.2)	-	17
-	Overall	24.3	(12.8, 34.2)	-	17
Kidney - Pancreas - USZ	Baseline	0.0	-	61	0
-	1 month	0.0	-	61	0
-	6 months	0.0	-	61	0
-	1 year(s)	0.0	-	58	0
-	2 year(s)	0.0	-	54	0
-	3 year(s)	2.2	(0, 6.3)	44	1
-	4 year(s)	2.2	(0, 6.3)	32	1
-	5 year(s)	5.3	(0, 12.4)	24	2
-	6 year(s)	5.3	(0, 12.4)	18	2
-	7 year(s)	5.3	(0, 12.4)	7	2
-	8 year(s)	5.3	(0, 12.4)	-	2
-	Overall	5.3	(0, 12.4)	-	2
Kidney - Pancreas - HUG	Baseline	0.0	-	20	0
-	1 month	0.0	-	20	0
-	6 months	5.0	(0, 14.1)	17	1
-	1 year(s)	5.0	(0, 14.1)	16	1
-	2 year(s)	5.0	(0, 14.1)	15	1
-	3 year(s)	5.0	(0, 14.1)	11	1
-	4 year(s)	5.0	(0, 14.1)	10	1
-	5 year(s)	5.0	(0, 14.1)	6	1
-	6 year(s)	5.0	(0, 14.1)	3	1
-	7 year(s)	5.0	(0, 14.1)	1	1
-	8 year(s)	5.0	(0, 14.1)	-	1
-	Overall	5.0	(0, 14.1)	-	1

8.4 Mortality in first single kidney Tpx

Overall survival for patients with single kidney Tpx as first STCS Tpx is presented separated by the donor type. In Figure 27, category 'Living' is separated in 'Living, ABO c' and 'Living, not ABO c'. The letter 'c' means 'compatible'.

Patients that had a Kidney or Kidney-Kidney Tpx and have a GF and no re or second Tpx are censored for mortality at the time point of GF.

Figure 26: Overall survival for patients with first STCS single kidney Tpx by donor type

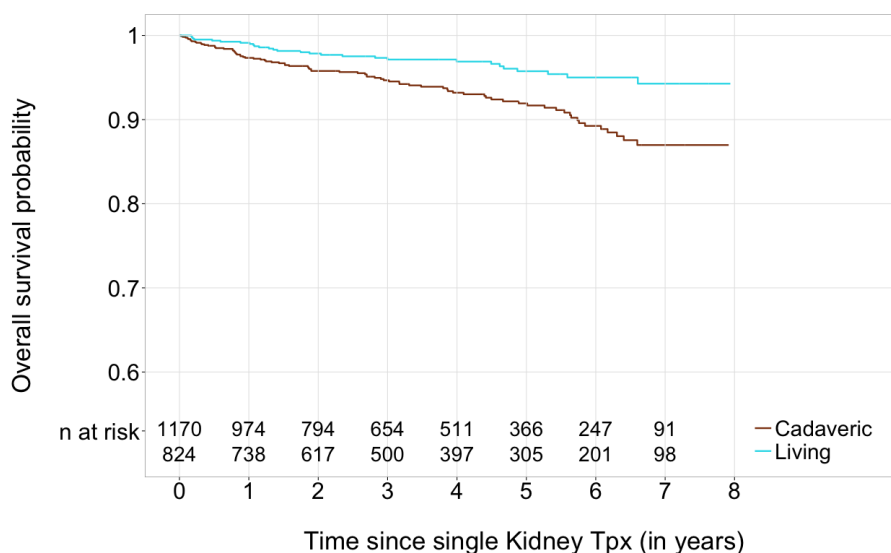


Figure 27: Overall survival for patients with first STCS single kidney Tpx by donor type combined with AB0 compatibility

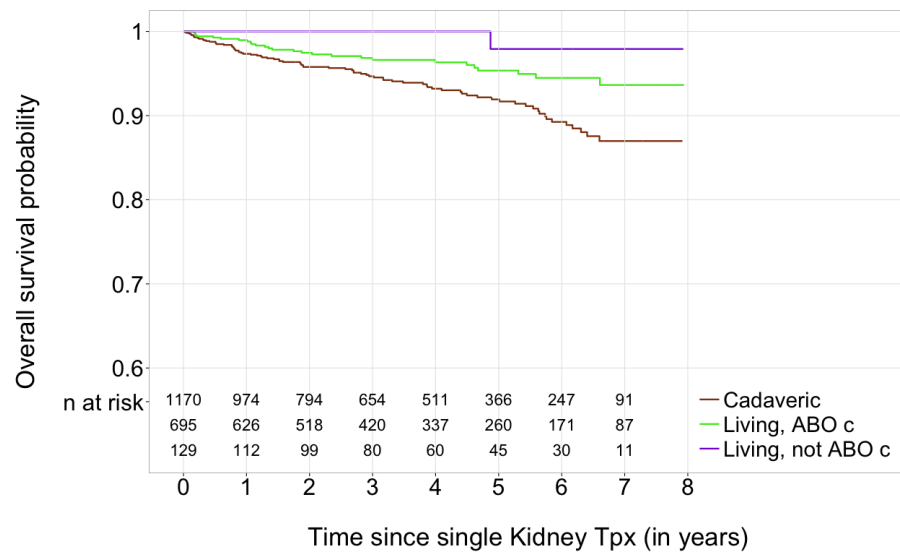


Table 16: Overall mortality in (single) kidney recipients by donor type

Donor type	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Cadaveric	Baseline	0.0	-	1170	0
-	1 month	0.2	(0, 0.4)	1146	2
-	6 months	1.2	(0.6, 1.9)	1082	14
-	1 years	2.7	(1.7, 3.6)	974	29
-	2 years	4.2	(3, 5.5)	794	43
-	3 years	5.3	(3.9, 6.8)	654	51
-	4 years	6.8	(5.1, 8.5)	511	60
-	5 years	8.1	(6.1, 10)	366	66
-	6 years	10.8	(8.1, 13.3)	247	75
-	7 years	13.0	(9.8, 16.2)	91	80
-	8 years	13.0	(9.8, 16.2)	-	80
-	Overall	13.0	(9.8, 16.2)	-	80
Living	Baseline	0.0	-	824	0
-	1 month	0.0	-	818	0
-	6 months	0.6	(0.1, 1.2)	782	5
-	1 years	0.9	(0.2, 1.5)	738	7
-	2 years	2.1	(1.1, 3.2)	617	16
-	3 years	2.9	(1.6, 4.1)	500	20
-	4 years	3.1	(1.8, 4.4)	397	21
-	5 years	4.2	(2.5, 6)	305	25
-	6 years	5.0	(3, 7)	201	27
-	7 years	5.7	(3.2, 8.1)	98	28
-	8 years	5.7	(3.2, 8.1)	-	28
-	Overall	5.7	(3.2, 8.1)	-	28

9 Graft failure and primary non-function

Failure and primary non-function in an allograft are considered as one. No distinction is therefore made in this section.

9.1 Graft failure

Graft failures (incl. grafts with primary non-function) are counted on organ-level (Tables 18 and 19). Table 17 gives a summary of numbers of graft failures on patient- and organ-level. In addition to, numbers of organs with primary non-function are given separately in Table 20.

Table 17: Summary for graft failures

	N	(%)
Graft failure - total	332	100.0
- in single Tpx	299	90.1
- in double Tpx	32	9.6
- in triple Tpx	1	0.3
Patients with at least one graft failure	302	
Patients with graft failure or death	616	100.0
- graft failure and alive at end of follow-up	172	27.9
- graft failure followed by late death	75	12.2
- graft failure related death (at same day)	55	8.9
- death without any graft failure	314	51

Table 18: Graft failures in double Tpx

	Total	Kidney	Heart	Liver	Pancreas
Total	32	10	1	4	17
Kidney - Heart	1	0	1	0	0
Kidney - Islets	1	1	0	0	0
Kidney - Kidney	4	4	0	0	0
Kidney - Liver	7	3	0	4	0
Kidney - Pancreas	17	2	0	0	15
Pancreas - Small bowel	2	0	0	0	2

Remark: Only double tpx with at least one graft failure are listed.

Table 19: Graft failure and related patients' death

	Total	All GF*	(%)	GF, late death	(%)	GF related death	(%)
Total	3805	332	8.7	88	26.5	62	18.7
Kidney	2242	155	6.9	28	18.1	1	0.6
Liver	825	94	11.4	40	42.6	23	24.5
Lung	371	42	11.3	12	28.6	22	52.4
Heart	265	21	7.9	4	19	16	76.2
Pancreas	102	20	19.6	4	20	0	0

* GF: graft failure (incl. primary non-function)

Remark: Islet and small bowel graft failures are disregarded.

Table 20: Number of organs with primary non-function

	Total	USZ	USB	CHUV	BE	HUG	SG
Total	52	24	2	5	9	11	1
Kidney	20	10	2	1	0	6	1
Liver	24	12	0	0	7	5	0
Lung	1	1	0	0	0	0	0
Heart	6	1	0	3	2	0	0
Pancreas	1	0	0	1	0	0	0

9.2 Graft failure free survival

In the following, rate estimates for graft failure free survival are not adjusted for potential risk factors. In Figure 28 and 29, both single kidney and double kidney Tpx are included as mentioned previously. Also 2 Kidney-Kidney-Pancreas Tpx (USZ) are included in Kidney-Pancreas Tpx. In contrast, Figure 30 shows graft failure free survival only for patients with first STCS single kidney Tpx.

Figure 28: Graft failure free survival by major Tpx

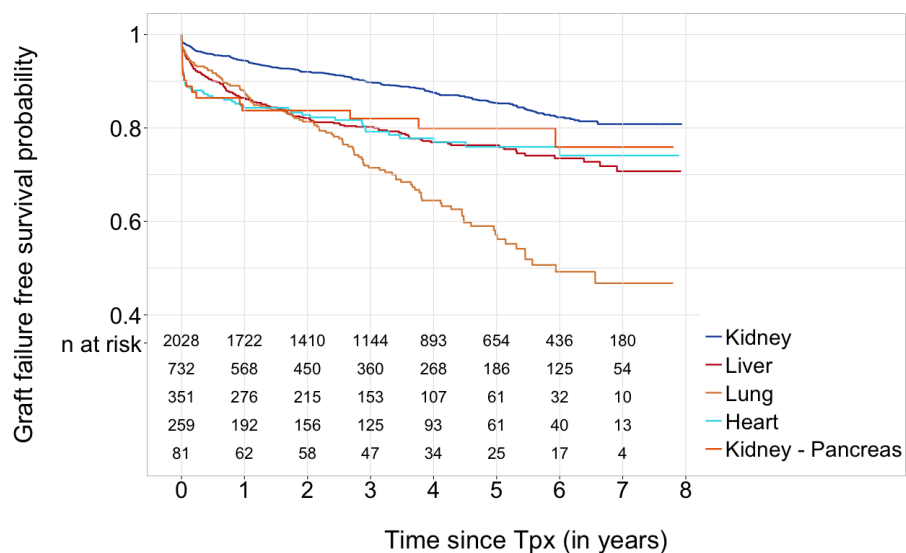


Figure 29: Graft failure free survival by major Tpx and centre

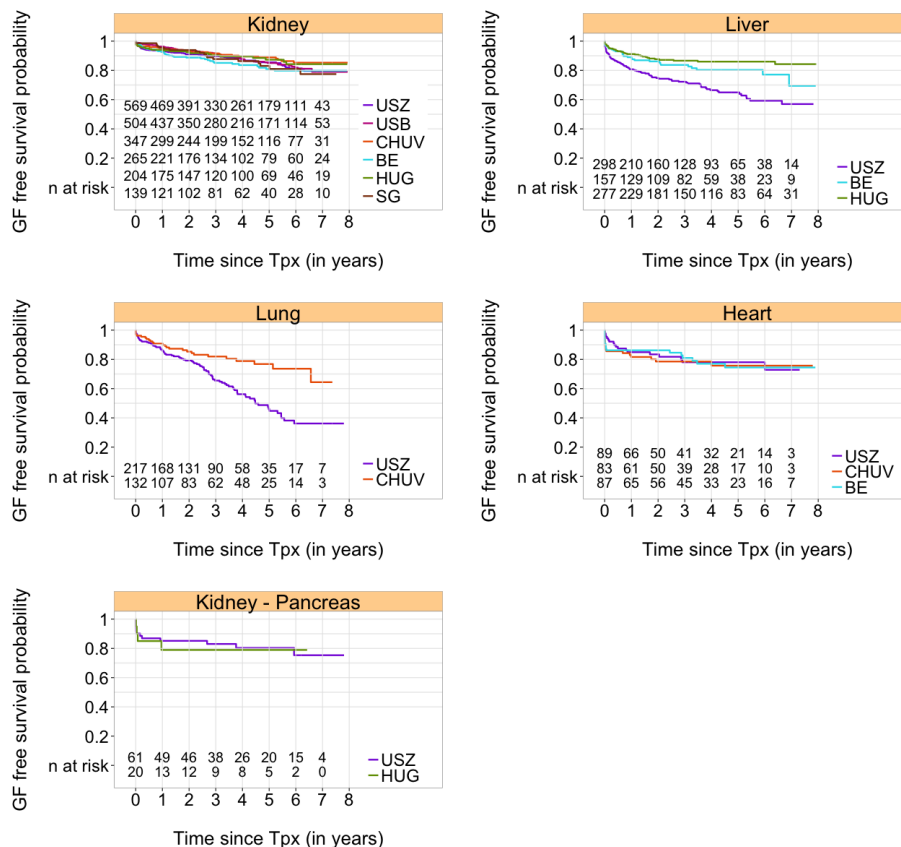
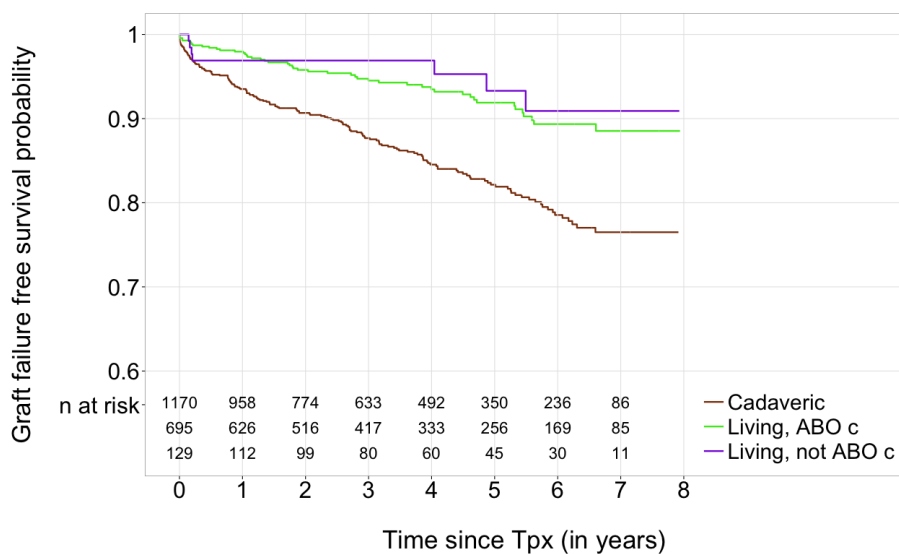


Figure 30: Graft failure free survival in patients with first STCS single kidney Tpx by donor type (combined with AB0 compatibility)



9.3 Cumulative incidence of graft failure

The cumulative incidence(s) (CumInc) of a graft failure is the probability for a graft failure within the reported time period. CumInc functions for graft failure are not adjusted for potential risk factors (illustrated in Figures and Tables).

Figure 31: Cumulative incidences of graft failure for organs with at least one graft failure

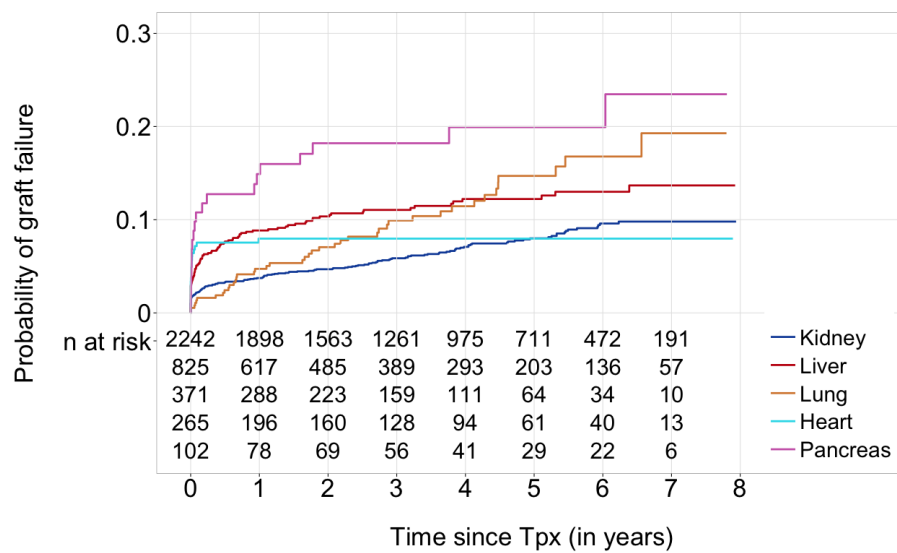


Figure 32: Cumulative incidences of graft failure for kidneys in single Tpx by donor type

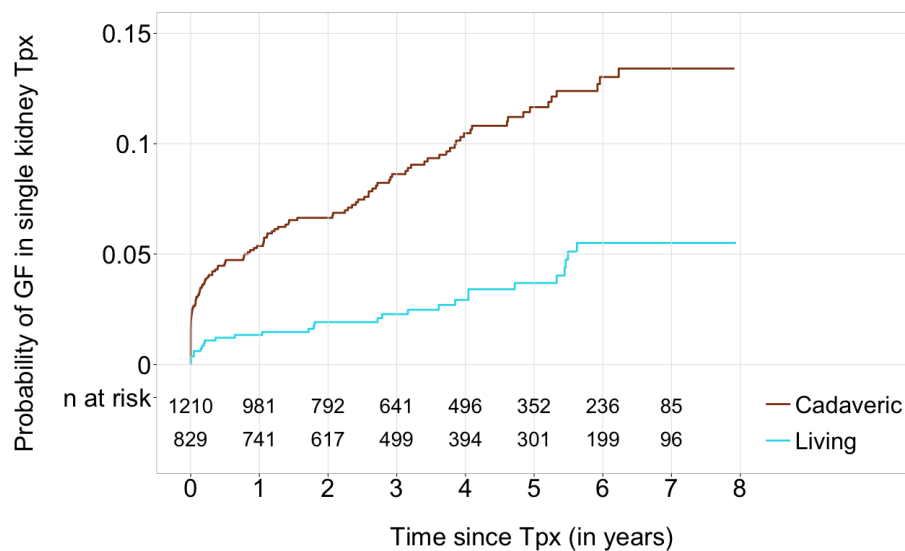


Figure 33: Cumulative incidences of graft failure for kidneys in single Tpx by ABO compatibility

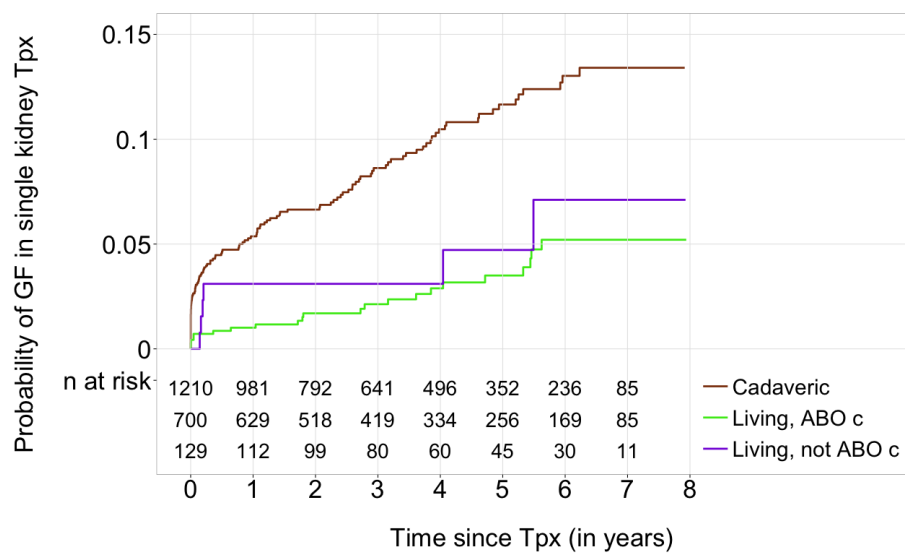


Table 21: Graft failure by organ

Organ	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Kidney	Baseline	-	-	2242	0	0
-	1 month	2.2	(1.6,2.9)	2187	49	5
-	6 months	3.3	(2.6,4.1)	2067	73	28
-	1 year(s)	3.7	(3,4.6)	1898	83	46
-	2 year(s)	4.7	(3.8,5.6)	1563	101	70
-	3 year(s)	5.9	(4.9,7)	1261	119	87
-	4 year(s)	7.1	(6,8.3)	975	134	98
-	5 year(s)	8	(6.7,9.4)	711	143	110
-	6 year(s)	9.6	(8.1,11.3)	472	154	121
-	7 year(s)	9.8	(8.2,11.5)	191	155	126
-	8 year(s)	-	-	0	155	126
-	Overall	9.8	(8.2,11.5)	0	155	126
Liver	Baseline	-	-	825	0	0
-	1 month	5.1	(3.7,6.7)	770	42	13
-	6 months	7.7	(6,9.6)	696	63	39
-	1 year(s)	8.8	(7,10.9)	617	72	55
-	2 year(s)	10.4	(8.3,12.6)	485	82	74
-	3 year(s)	11.1	(9,13.4)	389	86	80
-	4 year(s)	12.2	(9.9,14.8)	293	91	89
-	5 year(s)	12.2	(9.9,14.8)	203	91	92
-	6 year(s)	13	(10.5,15.8)	136	93	98
-	7 year(s)	13.7	(10.9,16.8)	57	94	100
-	8 year(s)	-	-	0	94	100
-	Overall	13.7	(10.9,16.8)	0	94	100
Lung	Baseline	-	-	371	0	0
-	1 month	1.3	(0.5,3)	354	5	12
-	6 months	2.4	(1.2,4.4)	333	9	23
-	1 year(s)	4.7	(2.9,7.3)	288	17	30
-	2 year(s)	7.1	(4.6,10.1)	223	24	43
-	3 year(s)	9.9	(6.9,13.6)	159	31	59
-	4 year(s)	11.4	(8,15.5)	111	34	69
-	5 year(s)	14.7	(10.5,19.6)	64	39	74
-	6 year(s)	16.8	(11.9,22.4)	34	41	79
-	7 year(s)	19.3	(12.8,26.8)	10	42	79
-	8 year(s)	-	-	0	42	79
-	Overall	19.3	(12.8,26.8)	0	42	79
Heart	Baseline	-	-	265	0	0
-	1 month	7.2	(4.5,10.7)	236	19	10
-	6 months	7.5	(4.8,11.1)	221	20	16
-	1 year(s)	8	(5.1,11.7)	196	21	21
-	2 year(s)	8	(5.1,11.7)	160	21	24
-	3 year(s)	8	(5.1,11.7)	128	21	30
-	4 year(s)	8	(5.1,11.7)	94	21	33
-	5 year(s)	8	(5.1,11.7)	61	21	34

Organ	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	6 year(s)	8	(5.1,11.7)	40	21	35
-	7 year(s)	8	(5.1,11.7)	13	21	35
-	8 year(s)	-	-	0	21	35
-	Overall	8	(5.1,11.7)	0	21	35
Pancreas	Baseline	-	-	102	0	0
-	1 month	10.8	(5.7,17.7)	90	11	1
-	6 months	12.7	(7.1,20)	85	13	1
-	1 year(s)	14.9	(8.7,22.6)	78	15	1
-	2 year(s)	18.2	(11.3,26.5)	69	18	1
-	3 year(s)	18.2	(11.3,26.5)	56	18	2
-	4 year(s)	19.9	(12.4,28.7)	41	19	2
-	5 year(s)	19.9	(12.4,28.7)	29	19	2
-	6 year(s)	19.9	(12.4,28.7)	22	19	2
-	7 year(s)	23.5	(13.9,34.5)	6	20	2
-	8 year(s)	-	-	0	20	2
-	Overall	23.5	(13.9,34.5)	0	20	2

Table 22: Graft failure by organ and centre

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Kidney-USZ	Baseline	0.0	-	683	0	0
-	1 month	2.8	(1.7,4.2)	661	19	2
-	6 months	4.7	(3.3,6.5)	619	32	10
-	1 year(s)	5.0	(3.5,6.8)	568	34	13
-	2 year(s)	6.1	(4.4,8.1)	476	40	17
-	3 year(s)	6.7	(4.9,8.9)	399	43	21
-	4 year(s)	7.5	(5.6,9.9)	308	46	26
-	5 year(s)	8.5	(6.3,11)	212	49	29
-	6 year(s)	10.6	(7.7,13.9)	134	53	33
-	7 year(s)	11.3	(8.2,15)	51	54	34
-	8 year(s)	-	-	0	54	34
-	Overall	11.3	(8.2,15)	0	54	34
Kidney-USB	Baseline	0.0	-	529	0	0
-	1 month	0.9	(0.4,2.1)	522	5	2
-	6 months	1.3	(0.6,2.6)	500	7	7
-	1 year(s)	1.7	(0.9,3.2)	457	9	12
-	2 year(s)	2.9	(1.6,4.6)	367	14	19
-	3 year(s)	3.7	(2.2,5.8)	291	17	24
-	4 year(s)	5.9	(3.8,8.7)	224	23	28
-	5 year(s)	7.7	(5.1,11)	175	27	30
-	6 year(s)	8.9	(5.9,12.6)	117	29	33
-	7 year(s)	8.9	(5.9,12.6)	53	29	36
-	8 year(s)	-	-	0	29	36
-	Overall	8.9	(5.9,12.6)	0	29	36
Kidney-CHUV	Baseline	0.0	-	362	0	0
-	1 month	2.5	(1.2,4.5)	352	9	1
-	6 months	2.8	(1.4,4.8)	338	10	4
-	1 year(s)	3.0	(1.6,5.2)	310	11	7
-	2 year(s)	3.4	(1.8,5.6)	256	12	11
-	3 year(s)	4.1	(2.3,6.6)	208	14	13
-	4 year(s)	5.5	(3.3,8.6)	157	17	14
-	5 year(s)	5.5	(3.3,8.6)	119	17	16
-	6 year(s)	9.0	(5.3,13.8)	80	21	16
-	7 year(s)	9.0	(5.3,13.8)	32	21	16
-	8 year(s)	-	-	0	21	16
-	Overall	9.0	(5.3,13.8)	0	21	16
Kidney-BE	Baseline	0.0	-	280	0	0
-	1 month	1.8	(0.7,3.9)	275	5	0
-	6 months	3.9	(2.1,6.7)	249	11	5
-	1 year(s)	5.1	(2.9,8.2)	232	14	7
-	2 year(s)	6.3	(3.8,9.7)	185	17	14
-	3 year(s)	9.7	(6.2,13.9)	140	23	15
-	4 year(s)	10.3	(6.7,14.8)	106	24	16
-	5 year(s)	11.2	(7.3,16)	83	25	17

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	6 year(s)	12.2	(8,17.4)	62	26	18
-	7 year(s)	12.2	(8,17.4)	24	26	18
-	8 year(s)	-	-	0	26	18
-	Overall	12.2	(8,17.4)	0	26	18
Kidney-HUG	Baseline	0.0	-	246	0	0
-	1 month	3.7	(1.8,6.6)	237	9	0
-	6 months	4.5	(2.4,7.6)	226	11	2
-	1 year(s)	4.5	(2.4,7.6)	208	11	4
-	2 year(s)	4.9	(2.7,8.2)	175	12	6
-	3 year(s)	5.5	(3.1,9)	141	13	8
-	4 year(s)	6.2	(3.5,10)	117	14	8
-	5 year(s)	6.2	(3.5,10)	81	14	11
-	6 year(s)	6.2	(3.5,10)	51	14	13
-	7 year(s)	6.2	(3.5,10)	21	14	13
-	8 year(s)	-	-	0	14	13
-	Overall	6.2	(3.5,10)	0	14	13
Kidney-SG	Baseline	0.0	-	142	0	0
-	1 month	1.4	(0.3,4.6)	140	2	0
-	6 months	1.4	(0.3,4.6)	135	2	0
-	1 year(s)	2.9	(0.9,6.7)	123	4	3
-	2 year(s)	4.4	(1.8,8.9)	104	6	3
-	3 year(s)	7.4	(3.6,13)	82	9	6
-	4 year(s)	8.7	(4.4,15)	63	10	6
-	5 year(s)	10.3	(5.3,17.4)	41	11	7
-	6 year(s)	10.3	(5.3,17.4)	28	11	8
-	7 year(s)	10.3	(5.3,17.4)	10	11	9
-	8 year(s)	-	-	0	11	9
-	Overall	10.3	(5.3,17.4)	0	11	9
Liver-USZ	Baseline	0.0	-	347	0	0
-	1 month	7.5	(5,10.6)	311	26	10
-	6 months	10.7	(7.7,14.2)	271	37	28
-	1 year(s)	12.6	(9.3,16.4)	233	43	35
-	2 year(s)	14.8	(11.2,18.9)	176	49	45
-	3 year(s)	16.1	(12.3,20.4)	142	52	47
-	4 year(s)	17.9	(13.7,22.5)	105	55	53
-	5 year(s)	17.9	(13.7,22.5)	74	55	55
-	6 year(s)	19.7	(15,25)	44	57	59
-	7 year(s)	19.7	(15,25)	16	57	60
-	8 year(s)	-	-	0	57	60
-	Overall	19.7	(15,25)	0	57	60
Liver-BE	Baseline	0.0	-	172	0	0
-	1 month	4.7	(2.2,8.6)	164	8	0
-	6 months	6.4	(3.4,10.8)	152	11	5
-	1 year(s)	6.4	(3.4,10.8)	138	11	11
-	2 year(s)	6.4	(3.4,10.8)	116	11	16
-	3 year(s)	6.4	(3.4,10.8)	88	11	19

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	4 year(s)	7.4	(4,12.3)	64	12	21
-	5 year(s)	7.4	(4,12.3)	41	12	21
-	6 year(s)	7.4	(4,12.3)	25	12	23
-	7 year(s)	7.4	(4,12.3)	9	12	24
-	8 year(s)	-	-	0	12	24
-	Overall	7.4	(4,12.3)	0	12	24
Liver-HUG	Baseline	0.0	-	306	0	0
-	1 month	2.6	(1.2,4.9)	295	8	3
-	6 months	4.9	(2.9,7.8)	273	15	6
-	1 year(s)	6.0	(3.7,9.1)	246	18	9
-	2 year(s)	7.6	(4.9,11.1)	193	22	13
-	3 year(s)	8.1	(5.3,11.7)	159	23	14
-	4 year(s)	8.7	(5.7,12.4)	124	24	15
-	5 year(s)	8.7	(5.7,12.4)	88	24	16
-	6 year(s)	8.7	(5.7,12.4)	67	24	16
-	7 year(s)	10.3	(6.3,15.5)	32	25	16
-	8 year(s)	-	-	0	25	16
-	Overall	10.3	(6.3,15.5)	0	25	16
Lung-USZ	Baseline	0.0	-	224	0	0
-	1 month	1.8	(0.6,4.2)	213	4	7
-	6 months	2.2	(0.8,4.9)	199	5	16
-	1 year(s)	4.6	(2.4,8)	170	10	23
-	2 year(s)	6.9	(3.9,10.9)	132	14	33
-	3 year(s)	9.6	(5.9,14.4)	90	18	49
-	4 year(s)	12.1	(7.6,17.6)	58	21	57
-	5 year(s)	16.2	(10.6,22.9)	35	25	62
-	6 year(s)	19.4	(12.6,27.2)	17	27	66
-	7 year(s)	19.4	(12.6,27.2)	7	27	66
-	8 year(s)	-	-	0	27	66
-	Overall	19.4	(12.6,27.2)	0	27	66
Lung-CHUV	Baseline	0.0	-	140	0	0
-	1 month	0.7	(0.1,3.6)	135	1	4
-	6 months	2.2	(0.6,5.7)	129	3	6
-	1 year(s)	4.4	(1.8,8.8)	115	6	6
-	2 year(s)	7.0	(3.4,12.3)	89	9	9
-	3 year(s)	10.1	(5.4,16.5)	67	12	9
-	4 year(s)	10.1	(5.4,16.5)	51	12	11
-	5 year(s)	12.0	(6.4,19.5)	27	13	11
-	6 year(s)	12.0	(6.4,19.5)	15	13	12
-	7 year(s)	21.4	(6.3,42.5)	3	14	12
-	8 year(s)	-	-	0	14	12
-	Overall	21.4	(6.3,42.5)	0	14	12
Lung-HUG	Baseline	0.0	-	7	0	0
-	1 month	0.0	-	6	0	1
-	6 months	14.3	(0.5,49.6)	5	1	1
-	1 year(s)	14.3	(0.5,49.6)	3	1	1

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	2 year(s)	14.3	(0.5,49.6)	2	1	1
-	3 year(s)	14.3	(0.5,49.6)	2	1	1
-	4 year(s)	14.3	(0.5,49.6)	2	1	1
-	5 year(s)	14.3	(0.5,49.6)	2	1	1
-	6 year(s)	14.3	(0.5,49.6)	2	1	1
-	7 year(s)	-	-	0	1	1
-	8 year(s)	-	-	0	1	1
-	Overall	14.3	(0.5,49.6)	0	1	1
Heart-USZ	Baseline	0.0	-	91	0	0
-	1 month	2.2	(0.4,7)	86	2	3
-	6 months	3.3	(0.9,8.6)	74	3	9
-	1 year(s)	3.3	(0.9,8.6)	66	3	12
-	2 year(s)	3.3	(0.9,8.6)	50	3	13
-	3 year(s)	3.3	(0.9,8.6)	41	3	16
-	4 year(s)	3.3	(0.9,8.6)	32	3	16
-	5 year(s)	3.3	(0.9,8.6)	21	3	16
-	6 year(s)	3.3	(0.9,8.6)	14	3	17
-	7 year(s)	3.3	(0.9,8.6)	3	3	17
-	8 year(s)	-	-	0	3	17
-	Overall	3.3	(0.9,8.6)	0	3	17
Heart-CHUV	Baseline	0.0	-	86	0	0
-	1 month	11.6	(5.9,19.4)	74	10	2
-	6 months	11.6	(5.9,19.4)	72	10	2
-	1 year(s)	12.9	(6.8,21)	64	11	4
-	2 year(s)	12.9	(6.8,21)	53	11	6
-	3 year(s)	12.9	(6.8,21)	41	11	6
-	4 year(s)	12.9	(6.8,21)	28	11	7
-	5 year(s)	12.9	(6.8,21)	17	11	7
-	6 year(s)	12.9	(6.8,21)	10	11	7
-	7 year(s)	12.9	(6.8,21)	3	11	7
-	8 year(s)	-	-	0	11	7
-	Overall	12.9	(6.8,21)	0	11	7
Heart-BE	Baseline	0.0	-	88	0	0
-	1 month	8.0	(3.5,14.8)	76	7	5
-	6 months	8.0	(3.5,14.8)	75	7	5
-	1 year(s)	8.0	(3.5,14.8)	66	7	5
-	2 year(s)	8.0	(3.5,14.8)	57	7	5
-	3 year(s)	8.0	(3.5,14.8)	46	7	8
-	4 year(s)	8.0	(3.5,14.8)	34	7	10
-	5 year(s)	8.0	(3.5,14.8)	23	7	11
-	6 year(s)	8.0	(3.5,14.8)	16	7	11
-	7 year(s)	8.0	(3.5,14.8)	7	7	11
-	8 year(s)	-	-	0	7	11
-	Overall	8.0	(3.5,14.8)	0	7	11
Pancreas-USZ	Baseline	0.0	-	72	0	0
-	1 month	9.7	(4.2,17.9)	64	7	1

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	6 months	12.5	(6.1,21.3)	62	9	1
-	1 year(s)	14.0	(7.1,23.1)	57	10	1
-	2 year(s)	17.1	(9.3,26.8)	50	12	1
-	3 year(s)	17.1	(9.3,26.8)	41	12	2
-	4 year(s)	19.6	(10.8,30.2)	27	13	2
-	5 year(s)	19.6	(10.8,30.2)	20	13	2
-	6 year(s)	19.6	(10.8,30.2)	16	13	2
-	7 year(s)	24.4	(12.5,38.3)	4	14	2
-	8 year(s)		-	0	14	2
-	Overall	24.4	(12.5,38.3)	0	14	2
Pancreas-HUG	Baseline	0.0	-	30	0	0
-	1 month	13.3	(4.1,28.1)	26	4	0
-	6 months	13.3	(4.1,28.1)	23	4	0
-	1 year(s)	17.3	(6.1,33.2)	21	5	0
-	2 year(s)	21.2	(8.3,38)	19	6	0
-	3 year(s)	21.2	(8.3,38)	15	6	0
-	4 year(s)	21.2	(8.3,38)	14	6	0
-	5 year(s)	21.2	(8.3,38)	9	6	0
-	6 year(s)	21.2	(8.3,38)	6	6	0
-	7 year(s)	21.2	(8.3,38)	2	6	0
-	8 year(s)		-	0	6	0
-	Overall	21.2	(8.3,38)	0	6	0

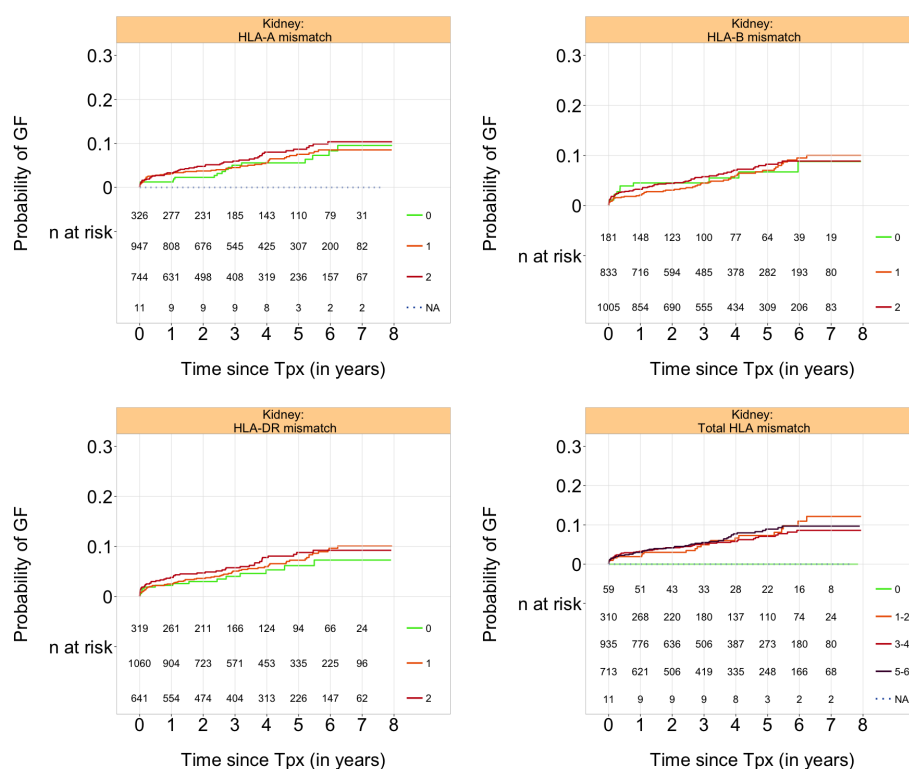
Table 23: Graft failure of kidneys (in first STCS single Tpx) by donor type

Donor type	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Cadaveric	Baseline	-	-	1210	0	0
-	1 month	3.1	(2.2,4.1)	1172	37	1
-	6 months	4.6	(3.5,5.8)	1096	55	16
-	1 year(s)	5.4	(4.2,6.7)	981	64	32
-	2 year(s)	6.6	(5.3,8.2)	792	77	46
-	3 year(s)	8.6	(7,10.4)	641	93	54
-	4 year(s)	10.5	(8.6,12.5)	496	105	62
-	5 year(s)	11.7	(9.6,13.9)	352	111	68
-	6 year(s)	13	(10.7,15.6)	236	116	76
-	7 year(s)	13.4	(11,16.1)	85	117	80
-	8 year(s)	-	-	0	117	80
-	Overall	13.4	(11,16.1)	0	117	80
Living	Baseline	-	-	829	0	0
-	1 month	0.6	(0.2,1.3)	823	5	0
-	6 months	1.2	(0.6,2.1)	787	10	5
-	1 year(s)	1.3	(0.7,2.3)	741	11	7
-	2 year(s)	1.9	(1.1,3.1)	617	15	16
-	3 year(s)	2.3	(1.4,3.6)	499	17	20
-	4 year(s)	2.9	(1.8,4.4)	394	20	21
-	5 year(s)	3.7	(2.4,5.5)	301	23	25
-	6 year(s)	5.5	(3.6,8)	199	28	27
-	7 year(s)	5.5	(3.6,8)	96	28	28
-	8 year(s)	-	-	0	28	28
-	Overall	5.5	(3.6,8)	0	28	28

9.4 Graft failure and number of HLA mismatches

Figures 34-37 show cumulative incidence functions for graft failures separated by (major) tpx and the number of HLA mismatches¹ between donor and recipient at baseline (i. e. at timepoint of first STCS tpx). It is distinguished between mismatches for HLA-A, HLA-B and HLA-DR and the total number of mismatches of these HLA classes.

Figure 34: Cumulative incidences of graft failure for kidney or kidney-kidney tpx by HLA mismatches



¹The number of mismatches are the number of HLA surface receptor classes of the donor not present in the recipient. If the surface receptors of the donor are homozygous, they are counted only once. Groups with less than 10 patients at time of tpx are not shown. The number of patients at risk for some tpx is lower compared to the number of tpx due to missing HLA information.

Figure 35: Cumulative incidences of graft failure for liver tpx by HLA mismatches

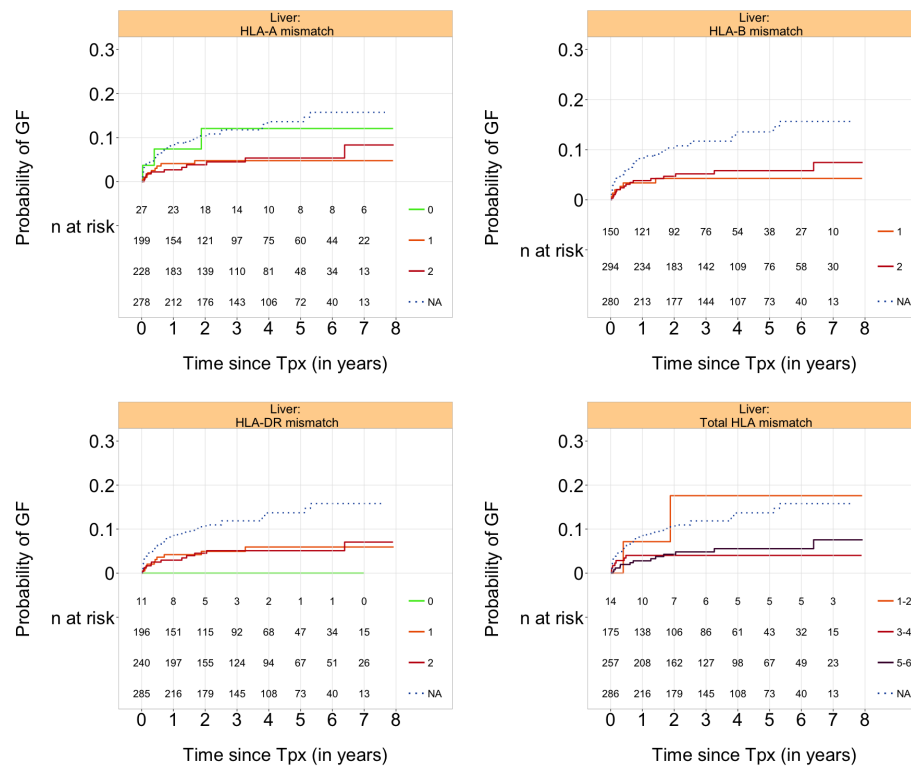


Figure 36: Cumulative incidences of graft failure for lung tpx by HLA mismatches

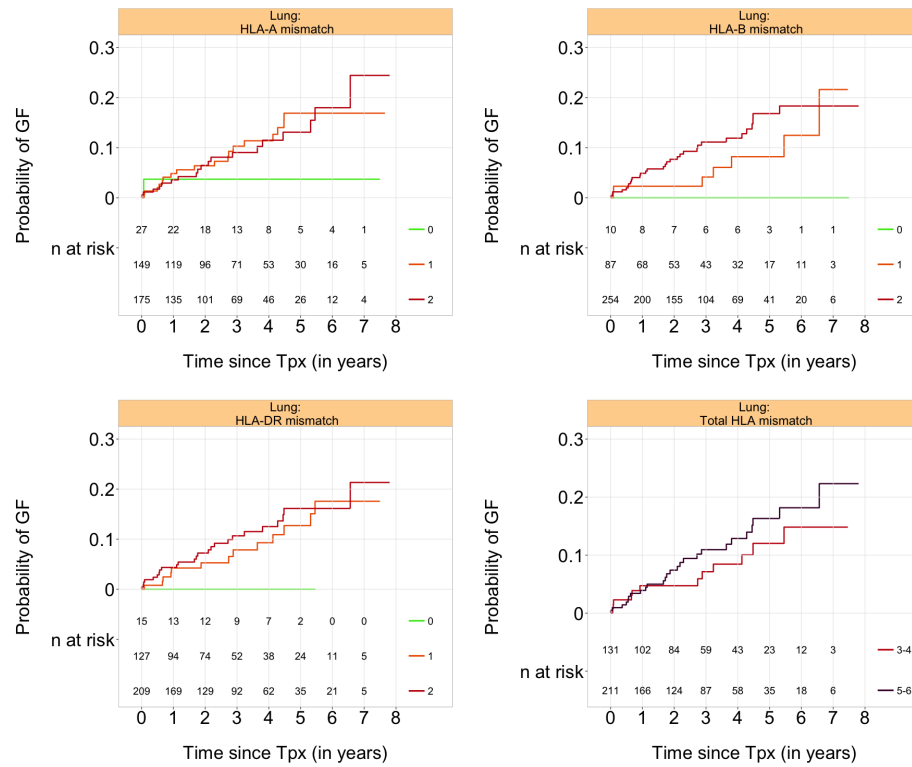
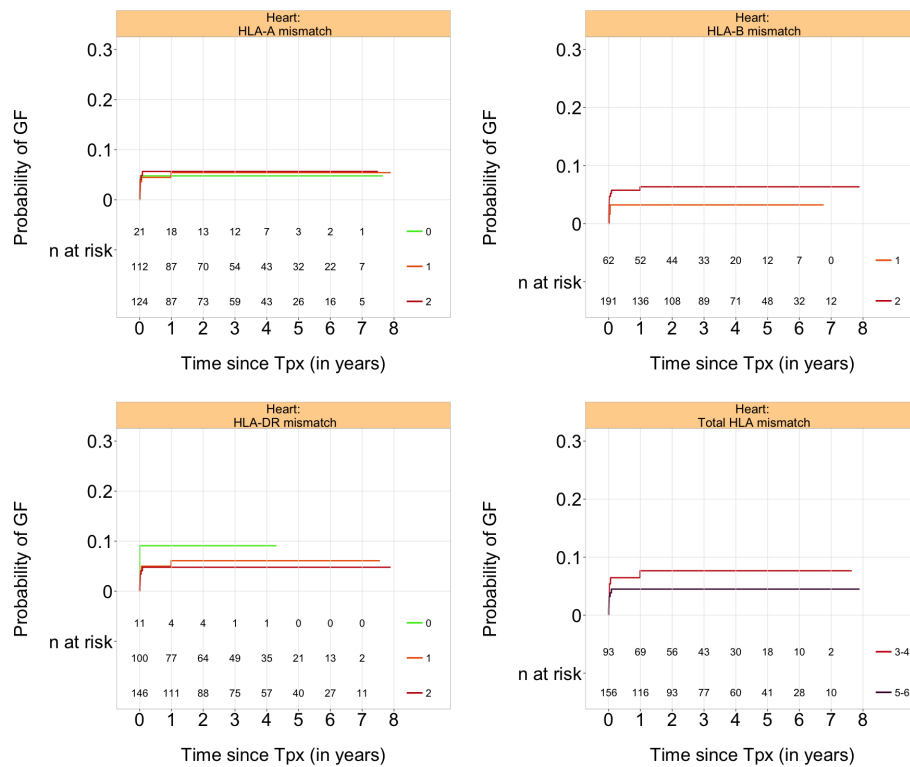


Figure 37: Cumulative incidences of graft failure for heart tpx by HLA mismatches



10 Cancer

Results regarding the incidence of cancer and skin cancer have to be considered with caution as data may be incomplete at the moment.

10.1 Cancer other than skin

Table 24: Overview of patients with incident cancer

	N	%
Total number of patients	3548	
Patients with incident cancer (other than skin)	246	6.9
- single record (% of line 2)	181	73.6
- multiple records (% of line 2)	65	26.4

Table 25: Patients with incident cancer

	No. patients	No. episodes	Median time (in yrs)*
Total	246	340	2.28
Kidney	125	169	2.46
Liver	79	116	2.11
Lung	24	32	1.72
Heart	14	18	2.31
Pancreas	1	2	0.24
Islets	3	3	3.02

* Median time (in years) from first STCS Tpx to diagnosis of cancer

Remark: Patients are listed regarding the organ implanted in the first STCS Tpx.

Table 26: Overview of incident cancer occurrence

	N	%
Total	340	100
Brain	5	2
Breast	8	2
Cervix_Uterus_Adnex	4	1
Colon	10	3
Kaposi	3	1
Kidney	17	5
Leukemia	6	2
Liver	39	12
Lung	33	10
MDS	4	1
MM	1	0
Neuroendocrine	4	1
PTLD	38	11
Prostate	28	8
Sarkoma	4	1
Testicular cancer	2	1
Thyroid	6	2
Uro_bladder	15	4
Cancer of unknown primary origin	1	0
Other	112	33

10.2 Skin cancer

Table 27: Overview of patients with incident skin cancer

	N	%
Total number of patients	3548	
Patients with incident skin cancer	308	8.7
- single record (% of line 2)	174	56.5
- multiple records (% of line 2)	134	43.5

Table 28: Patients with incident skin cancer

	No. patients	No. episodes	Median time (in yrs)*
Total	308	711	2.40
Kidney	213	514	2.54
Liver	34	67	2.08
Lung	33	82	2.10
Heart	20	31	2.31
Pancreas	3	9	4.00
Islets	5	8	2.48

* Median time (in years) from first STCS Tpx to diagnosis of skin cancer

Remark: Patients are listed regarding the organ implanted in the first STCS Tpx.

Table 29: Overview of incident skin cancer occurrence

	N	%
Total	711	100
Basalioma	230	32
Melanoma	32	4
Spinalioma	292	41
Other	157	22

A Cohort of all solid organ recipients transplanted since January 2008

The STCS officially started to enrol patients 1st of May 2008. By request from the Swiss Federal Office of Public Health, patients transplanted in the reporting period from 1.1.2008 until 30.4.2008 were retrospectively added to the STCS. The STCS authorities decided to capture and report only “mini-minimal” data for these patients. Therefore for the full reporting period (January 2008 to present) only data on the transplanted organ, overall mortality and failure-free survival can be presented.

A.1 Overview

The following table lists the number of patients and Tpx performed, it shows patients according to their first STCS Tpx in the period: January 2008 - April 2008.

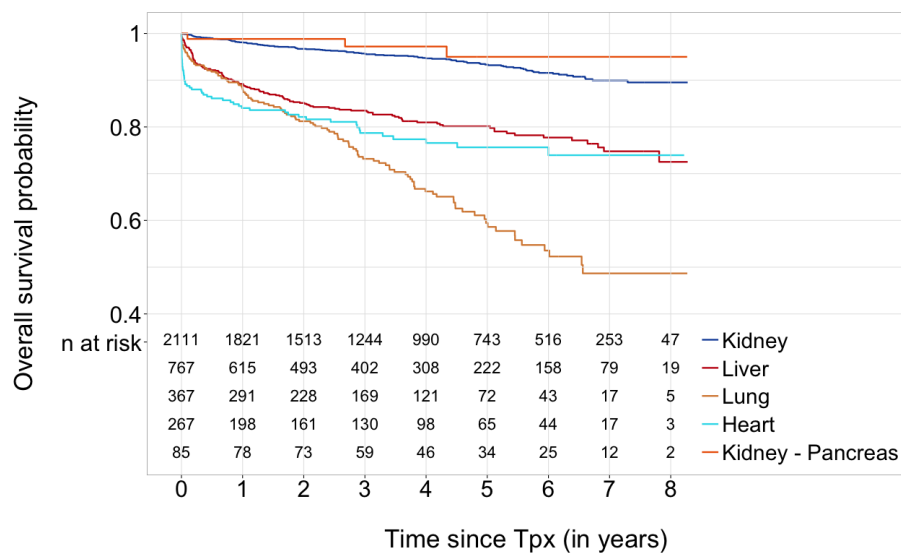
Table 30: Number of patients enrolled by Tpx type (January 2008 - April 2008)

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	151	124	82.1	22	14.6	5	3.3
Kidney	83	61	73.5	18	21.7	4	4.8
Liver	35	34	97.1	1	2.9	0	0.0
Lung	16	15	93.8	1	6.2	0	0.0
Heart	8	7	87.5	1	12.5	0	0.0
Islets	2	0	0.0	1	50.0	1	50.0
Small bowel	1	1	100.0	0	0.0	0	0.0
Kidney - Pancreas	4	4	100.0	0	0.0	0	0.0
Kidney - Liver	1	1	100.0	0	0.0	0	0.0
Kidney - Heart	1	1	100.0	0	0.0	0	0.0

A.2 Mortality by Tpx

The following figure includes all the patients transplanted in the period: January 2008 - December 2015 and is analogous to Figure 24.

Figure 38: Overall survival since January 2008 for frequent Tpx types

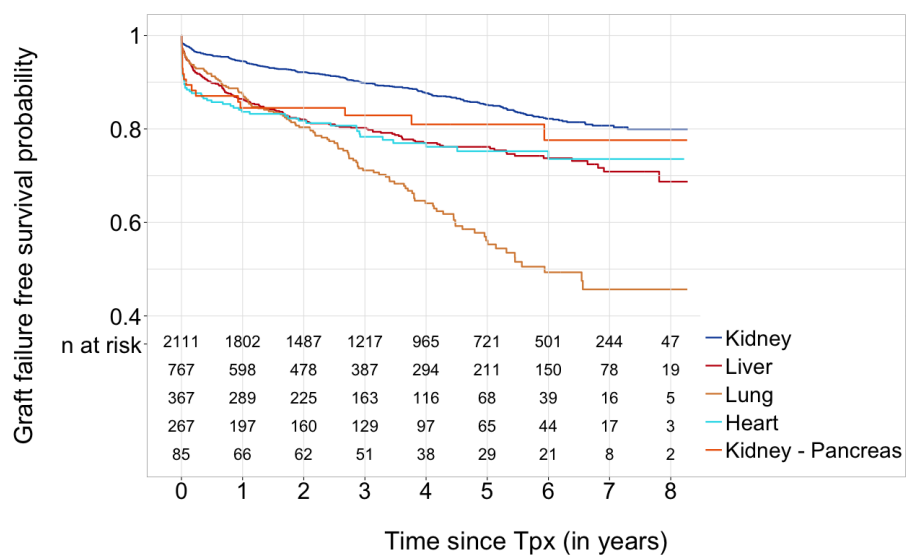


Remark: 34 Kidney-Kidney Tpx are included in Kidney Tpx. 2 Kidney-Kidney-Pancreas are included in Kidney-Pancreas. Patients that had a Kidney or Kidney-Kidney Tpx and have a GF and no re or second Tpx are censored for mortality at the time point of GF.

A.3 Graft failure free survival

The following figure includes all the patients transplanted in the period: January 2008 - December 2015 and is analogous to Figure 28. The rate estimates for graft failure free survival are not adjusted for potential risk factors.

Figure 39: Graft failure free survival since January 2008 by major Tpx



Remark: 34 Kidney-Kidney Tpx are included in Kidney Tpx. 2 Kidney-Kidney-Pancreas are included in Kidney-Pancreas.

B Pediatric patients (under 18)

Table 31: Number of pediatric patients by first Tpx type

	Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%
Total	190	72	37.9	4	2.1	17	8.9	27	14.2	68	35.8	2	1.1
Kidney	85	47	55.3	4	4.7	10	11.8	19	22.4	3	3.5	2	2.4
Liver	61	1	1.6	0	0.0	0	0.0	0	0.0	60	98.4	0	0.0
Lung	13	11	84.6	0	0.0	1	7.7	0	0.0	1	7.7	0	0.0
Heart	25	11	44.0	0	0.0	6	24.0	8	32.0	0	0.0	0	0.0
Kidney - Kidney	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kidney - Liver	3	0	0.0	0	0.0	0	0.0	0	0.0	3	100.0	0	0.0
Islets - Liver - Lung	1	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0

Table 32: Number of Tpx in pediatric patients by organ and centre

	Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%
Total	200	76	38.0	4	2.0	19	9.5	27	13.5	72	36.0	2	1.0
Kidney	87	48	55.2	4	4.6	11	12.6	19	21.8	3	3.4	2	2.3
Liver	65	2	3.1	0	0.0	0	0.0	0	0.0	63	96.9	0	0.0
Lung	16	13	81.2	0	0.0	2	12.5	0	0.0	1	6.2	0	0.0
Heart	25	11	44.0	0	0.0	6	24.0	8	32.0	0	0.0	0	0.0
Kidney - Kidney	2	2	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Kidney - Liver	4	0	0.0	0	0.0	0	0.0	0	0.0	4	100.0	0	0.0
Islets - Liver - Lung	1	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0

Remark: Patients that are under 18 at baseline might be over 18 at the time of re or second Tpx.

C Mortality in patients with rare Tpx

Kidney - Kidney Tpx and Kidney - Kidney - Pancreas Tpx are excluded from the following tables.

Table 33: Overall mortality by rare Tpx scenarios

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Islets	Baseline	0.00	-	31	0
-	1 month	0.00	-	31	0
-	6 months	3.23	(0, 9.2)	30	1
-	1 year(s)	6.45	(0, 14.7)	28	2
-	2 year(s)	6.45	(0, 14.7)	25	2
-	3 year(s)	6.45	(0, 14.7)	20	2
-	4 year(s)	6.45	(0, 14.7)	18	2
-	5 year(s)	17.96	(0, 33.2)	12	4
-	6 year(s)	17.96	(0, 33.2)	10	4
-	7 year(s)	27.08	(0.7, 46.5)	7	5
-	8 year(s)	27.08	(0.7, 46.5)	-	5
-	Overall	27.08	(0.7, 46.5)	-	5
Pancreas	Baseline	0.00	-	10	0
-	1 month	0.00	-	10	0
-	6 months	0.00	-	10	0
-	1 year(s)	0.00	-	10	0
-	2 year(s)	0.00	-	10	0
-	3 year(s)	0.00	-	9	0
-	4 year(s)	0.00	-	6	0
-	5 year(s)	0.00	-	4	0
-	6 year(s)	0.00	-	4	0
-	7 year(s)	0.00	-	2	0
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0
Small bowel	Baseline	0.00	-	1	0
-	1 month	0.00	-	1	0
-	6 months	0.00	-	1	0
-	1 year(s)	0.00	-	1	0
-	2 year(s)	0.00	-	1	0
-	3 year(s)	100.00	-	-	1
-	4 year(s)	100.00	-	-	1
-	5 year(s)	100.00	-	-	1
-	6 year(s)	100.00	-	-	1
-	7 year(s)	100.00	-	-	1
-	8 year(s)	100.00	-	-	1
-	Overall	100.00	-	-	1
Kidney - Liver	Baseline	0.00	-	30	0
-	1 month	10.00	(0, 20.1)	27	3
-	6 months	13.33	(0.3, 24.7)	26	4
-	1 year(s)	13.33	(0.3, 24.7)	24	4
-	2 year(s)	16.94	(2.2, 29.5)	18	5
-	3 year(s)	16.94	(2.2, 29.5)	16	5
-	4 year(s)	16.94	(2.2, 29.5)	14	5

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	5 year(s)	22.88	(4, 38)	11	6
-	6 year(s)	32.52	(5.1, 52)	7	7
-	7 year(s)	32.52	(5.1, 52)	3	7
-	8 year(s)	32.52	(5.1, 52)	-	7
-	Overall	32.52	(5.1, 52)	-	7
Kidney - Islets	Baseline	0.00	-	12	0
-	1 month	0.00	-	12	0
-	6 months	0.00	-	12	0
-	1 year(s)	0.00	-	10	0
-	2 year(s)	0.00	-	10	0
-	3 year(s)	0.00	-	9	0
-	4 year(s)	0.00	-	6	0
-	5 year(s)	0.00	-	5	0
-	6 year(s)	0.00	-	3	0
-	7 year(s)	0.00	-	-	0
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0
Kidney - Heart	Baseline	0.00	-	4	0
-	1 month	25.00	(0, 57.4)	3	1
-	6 months	25.00	(0, 57.4)	3	1
-	1 year(s)	25.00	(0, 57.4)	3	1
-	2 year(s)	25.00	(0, 57.4)	3	1
-	3 year(s)	25.00	(0, 57.4)	2	1
-	4 year(s)	25.00	(0, 57.4)	-	1
-	5 year(s)	25.00	(0, 57.4)	-	1
-	6 year(s)	25.00	(0, 57.4)	-	1
-	7 year(s)	25.00	(0, 57.4)	-	1
-	8 year(s)	25.00	(0, 57.4)	-	1
-	Overall	25.00	(0, 57.4)	-	1
Kidney - Lung	Baseline	0.00	-	1	0
-	1 month	0.00	-	1	0
-	6 months	0.00	-	1	0
-	1 year(s)	0.00	-	1	0
-	2 year(s)	0.00	-	1	0
-	3 year(s)	0.00	-	1	0
-	4 year(s)	0.00	-	1	0
-	5 year(s)	0.00	-	1	0
-	6 year(s)	0.00	-	1	0
-	7 year(s)	0.00	-	-	0
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0
Liver - Lung	Baseline	0.00	-	3	0
-	1 month	0.00	-	3	0
-	6 months	0.00	-	3	0
-	1 year(s)	0.00	-	1	0
-	2 year(s)	0.00	-	1	0
-	3 year(s)	0.00	-	1	0
-	4 year(s)	0.00	-	1	0
-	5 year(s)	0.00	-	1	0
-	6 year(s)	0.00	-	1	0
-	7 year(s)	0.00	-	-	0

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0
Heart - Lung	Baseline	0.00	-	1	0
-	1 month	0.00	-	1	0
-	6 months	0.00	-	1	0
-	1 year(s)	100.00	-	-	1
-	2 year(s)	100.00	-	-	1
-	3 year(s)	100.00	-	-	1
-	4 year(s)	100.00	-	-	1
-	5 year(s)	100.00	-	-	1
-	6 year(s)	100.00	-	-	1
-	7 year(s)	100.00	-	-	1
-	8 year(s)	100.00	-	-	1
-	Overall	100.00	-	-	1
Pancreas - Small bowel	Baseline	0.00	-	2	0
-	1 month	0.00	-	2	0
-	6 months	0.00	-	2	0
-	1 year(s)	0.00	-	2	0
-	2 year(s)	100.00	-	-	2
-	3 year(s)	100.00	-	-	2
-	4 year(s)	100.00	-	-	2
-	5 year(s)	100.00	-	-	2
-	6 year(s)	100.00	-	-	2
-	7 year(s)	100.00	-	-	2
-	8 year(s)	100.00	-	-	2
-	Overall	100.00	-	-	2
Kidney - Islets - Liver	Baseline	0.00	-	1	0
-	1 month	0.00	-	1	0
-	6 months	0.00	-	1	0
-	1 year(s)	0.00	-	1	0
-	2 year(s)	0.00	-	1	0
-	3 year(s)	0.00	-	1	0
-	4 year(s)	0.00	-	-	0
-	5 year(s)	0.00	-	-	0
-	6 year(s)	0.00	-	-	0
-	7 year(s)	0.00	-	-	0
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0
Islets - Liver - Lung	Baseline	0.00	-	1	0
-	1 month	0.00	-	1	0
-	6 months	0.00	-	1	0
-	1 year(s)	0.00	-	1	0
-	2 year(s)	0.00	-	-	0
-	3 year(s)	0.00	-	-	0
-	4 year(s)	0.00	-	-	0
-	5 year(s)	0.00	-	-	0
-	6 year(s)	0.00	-	-	0
-	7 year(s)	0.00	-	-	0
-	8 year(s)	0.00	-	-	0
-	Overall	0.00	-	-	0

Table 34: Overall mortality by rare Tpx scenarios and centre

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Islets - USZ	Baseline	0.0	-	19	0
-	1 month	0.0	-	19	0
-	6 months	5.3	(0, 14.8)	18	1
-	1 year(s)	10.5	(0, 23.3)	17	2
-	2 year(s)	10.5	(0, 23.3)	15	2
-	3 year(s)	10.5	(0, 23.3)	13	2
-	4 year(s)	10.5	(0, 23.3)	11	2
-	5 year(s)	27.7	(0, 48.3)	8	4
-	6 year(s)	27.7	(0, 48.3)	7	4
-	7 year(s)	39.8	(1.6, 63.1)	4	5
-	8 year(s)	39.8	(1.6, 63.1)	-	5
-	Overall	39.8	(1.6, 63.1)	-	5
Islets - HUG	Baseline	0.0	-	12	0
-	1 month	0.0	-	12	0
-	6 months	0.0	-	12	0
-	1 year(s)	0.0	-	11	0
-	2 year(s)	0.0	-	10	0
-	3 year(s)	0.0	-	7	0
-	4 year(s)	0.0	-	7	0
-	5 year(s)	0.0	-	4	0
-	6 year(s)	0.0	-	3	0
-	7 year(s)	0.0	-	3	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Pancreas - USZ	Baseline	0.0	-	5	0
-	1 month	0.0	-	5	0
-	6 months	0.0	-	5	0
-	1 year(s)	0.0	-	5	0
-	2 year(s)	0.0	-	5	0
-	3 year(s)	0.0	-	4	0
-	4 year(s)	0.0	-	1	0
-	5 year(s)	0.0	-	-	0
-	6 year(s)	0.0	-	-	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Pancreas - HUG	Baseline	0.0	-	5	0
-	1 month	0.0	-	5	0
-	6 months	0.0	-	5	0
-	1 year(s)	0.0	-	5	0
-	2 year(s)	0.0	-	5	0
-	3 year(s)	0.0	-	5	0
-	4 year(s)	0.0	-	5	0
-	5 year(s)	0.0	-	4	0
-	6 year(s)	0.0	-	4	0
-	7 year(s)	0.0	-	2	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Small bowel - HUG	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	0.0	-	1	0
-	3 year(s)	100.0	-	-	1
-	4 year(s)	100.0	-	-	1
-	5 year(s)	100.0	-	-	1
-	6 year(s)	100.0	-	-	1
-	7 year(s)	100.0	-	-	1
-	8 year(s)	100.0	-	-	1
-	Overall	100.0	-	-	1
Kidney - Liver - USZ	Baseline	0.0	-	10	0
-	1 month	10.0	(0, 26.8)	9	1
-	6 months	20.0	(0, 41.3)	8	2
-	1 year(s)	20.0	(0, 41.3)	7	2
-	2 year(s)	20.0	(0, 41.3)	6	2
-	3 year(s)	20.0	(0, 41.3)	6	2
-	4 year(s)	20.0	(0, 41.3)	5	2
-	5 year(s)	20.0	(0, 41.3)	4	2
-	6 year(s)	20.0	(0, 41.3)	3	2
-	7 year(s)	20.0	(0, 41.3)	2	2
-	8 year(s)	20.0	(0, 41.3)	-	2
-	Overall	20.0	(0, 41.3)	-	2
Kidney - Liver - BE	Baseline	0.0	-	7	0
-	1 month	0.0	-	7	0
-	6 months	0.0	-	7	0
-	1 year(s)	0.0	-	7	0
-	2 year(s)	14.3	(0, 36.7)	5	1
-	3 year(s)	14.3	(0, 36.7)	5	1
-	4 year(s)	14.3	(0, 36.7)	4	1
-	5 year(s)	14.3	(0, 36.7)	3	1
-	6 year(s)	42.9	(0, 75.7)	2	2
-	7 year(s)	42.9	(0, 75.7)	-	2
-	8 year(s)	42.9	(0, 75.7)	-	2
-	Overall	42.9	(0, 75.7)	-	2
Kidney - Liver - HUG	Baseline	0.0	-	13	0
-	1 month	15.4	(0, 32.9)	11	2
-	6 months	15.4	(0, 32.9)	11	2
-	1 year(s)	15.4	(0, 32.9)	10	2
-	2 year(s)	15.4	(0, 32.9)	7	2
-	3 year(s)	15.4	(0, 32.9)	5	2
-	4 year(s)	15.4	(0, 32.9)	5	2
-	5 year(s)	32.3	(0, 58.8)	4	3
-	6 year(s)	32.3	(0, 58.8)	2	3
-	7 year(s)	32.3	(0, 58.8)	1	3
-	8 year(s)	32.3	(0, 58.8)	-	3
-	Overall	32.3	(0, 58.8)	-	3
Kidney - Islets - USZ	Baseline	0.0	-	7	0
-	1 month	0.0	-	7	0
-	6 months	0.0	-	7	0
-	1 year(s)	0.0	-	6	0
-	2 year(s)	0.0	-	6	0
-	3 year(s)	0.0	-	5	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	4 year(s)	0.0	-	4	0
-	5 year(s)	0.0	-	3	0
-	6 year(s)	0.0	-	3	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Kidney - Islets - HUG	Baseline	0.0	-	5	0
-	1 month	0.0	-	5	0
-	6 months	0.0	-	5	0
-	1 year(s)	0.0	-	4	0
-	2 year(s)	0.0	-	4	0
-	3 year(s)	0.0	-	4	0
-	4 year(s)	0.0	-	2	0
-	5 year(s)	0.0	-	2	0
-	6 year(s)	0.0	-	-	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Kidney - Heart - USZ	Baseline	0.0	-	1	0
-	1 month	100.0	-	-	1
-	6 months	100.0	-	-	1
-	1 year(s)	100.0	-	-	1
-	2 year(s)	100.0	-	-	1
-	3 year(s)	100.0	-	-	1
-	4 year(s)	100.0	-	-	1
-	5 year(s)	100.0	-	-	1
-	6 year(s)	100.0	-	-	1
-	7 year(s)	100.0	-	-	1
-	8 year(s)	100.0	-	-	1
-	Overall	100.0	-	-	1
Kidney - Heart - CHUV	Baseline	0.0	-	3	0
-	1 month	0.0	-	3	0
-	6 months	0.0	-	3	0
-	1 year(s)	0.0	-	3	0
-	2 year(s)	0.0	-	3	0
-	3 year(s)	0.0	-	2	0
-	4 year(s)	0.0	-	-	0
-	5 year(s)	0.0	-	-	0
-	6 year(s)	0.0	-	-	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Kidney - Lung - CHUV	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	0.0	-	1	0
-	3 year(s)	0.0	-	1	0
-	4 year(s)	0.0	-	1	0
-	5 year(s)	0.0	-	1	0
-	6 year(s)	0.0	-	1	0
-	7 year(s)	0.0	-	-	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Liver - Lung - HUG	Baseline	0.0	-	3	0
-	1 month	0.0	-	3	0
-	6 months	0.0	-	3	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	0.0	-	1	0
-	3 year(s)	0.0	-	1	0
-	4 year(s)	0.0	-	1	0
-	5 year(s)	0.0	-	1	0
-	6 year(s)	0.0	-	1	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Heart - Lung - USZ	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	100.0	-	-	1
-	2 year(s)	100.0	-	-	1
-	3 year(s)	100.0	-	-	1
-	4 year(s)	100.0	-	-	1
-	5 year(s)	100.0	-	-	1
-	6 year(s)	100.0	-	-	1
-	7 year(s)	100.0	-	-	1
-	8 year(s)	100.0	-	-	1
-	Overall	100.0	-	-	1
Pancreas - Small bowel - USZ	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	100.0	-	-	1
-	3 year(s)	100.0	-	-	1
-	4 year(s)	100.0	-	-	1
-	5 year(s)	100.0	-	-	1
-	6 year(s)	100.0	-	-	1
-	7 year(s)	100.0	-	-	1
-	8 year(s)	100.0	-	-	1
-	Overall	100.0	-	-	1
Pancreas - Small bowel - HUG	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	100.0	-	-	1
-	3 year(s)	100.0	-	-	1
-	4 year(s)	100.0	-	-	1
-	5 year(s)	100.0	-	-	1
-	6 year(s)	100.0	-	-	1
-	7 year(s)	100.0	-	-	1
-	8 year(s)	100.0	-	-	1
-	Overall	100.0	-	-	1
Kidney - Islets - Liver - HUG	Baseline	0.0	-	1	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	0.0	-	1	0
-	3 year(s)	0.0	-	1	0
-	4 year(s)	0.0	-	-	0
-	5 year(s)	0.0	-	-	0
-	6 year(s)	0.0	-	-	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0
Islets - Liver - Lung - HUG	Baseline	0.0	-	1	0
-	1 month	0.0	-	1	0
-	6 months	0.0	-	1	0
-	1 year(s)	0.0	-	1	0
-	2 year(s)	0.0	-	-	0
-	3 year(s)	0.0	-	-	0
-	4 year(s)	0.0	-	-	0
-	5 year(s)	0.0	-	-	0
-	6 year(s)	0.0	-	-	0
-	7 year(s)	0.0	-	-	0
-	8 year(s)	0.0	-	-	0
-	Overall	0.0	-	-	0