

SWISS
TRANSPLANT
COHORT
STUDY

Swiss Transplant Cohort Study Report (January 2008 - 31 December 2023)

November 2024

Sanda Branca-Dragan, Juliane Rick, Katell Mellac, Simona Rossi, Jaromil Frossard, Joana Pinto Borrego, Gilles Freund, Linard David Hoessly, Ming Zou, Andi Zuberi, Michael Koller, and Jürg Steiger on behalf of all members of the STCS

Contact information:

Michael Koller and Jürg Steiger
Petersgraben 4
CH-4031 Basel
Phone +41 61 26 52525
Fax +41 61 26 52410
Direct calling +41 61 32 86404 or +41 61 32 86737
michael.koller@usb.ch, juerg.steiger@usb.ch

Disclaimer

The STCS Annual Report covers all solid organ transplantation (SOT) activities on the Swiss national level since January 2008. The report is comprehensive and contains all combinations of simultaneous solid organ transplantations, consecutive transplants, 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.**

The Swiss Transplant Cohort Study (STCS)

List of Abbreviations

STCS	Swiss Transplant Cohort Study
CI	confidence interval
CumInc	cumulative incidence
FUP	follow-up
GF	graft failure
KPD	kidney paired donation (cross-over living donation)
DBD	donation after brain death
DCD	donation after cardiac death (non-heart-beating donor, NHBD)
Tpx	transplantation

List of Figures

1	Quarterly patient enrolment by donor type	8
2	Cumulative patient enrolment	8
3	Cumulative patient enrolment by Tpx type	9
4	Cumulative patient enrolment by center	9
5	Number of patients with first STCS Kidney, Liver, Lung, Heart, Pancreas or Islets Tpx	11
6	Number of single Kidney Tpx by donor type	12
7	Distribution of donor types in all single Kidney Tpx	12
8	Cumulative number of patients enrolled from KPD program by centre . .	13
9	Cumulative number of patients with Kidney transplantations from DCD donation by centre	14
10	Number of single Liver Tpx by donor type	15
11	Distribution of donor types in all single Liver Tpx	15
12	Cumulative number of patients with Liver transplantations from DCD donation by centre	16
13	Patients current consent status	17
14	Patients current consent status by centre	17
15	Overall survival	20
16	Overall survival for common Tpx types	21
17	Overall survival for Kidney Tpx by centre	21
18	Overall survival for other common Tpx by centre	22
19	Overall survival for patients with first STCS Kidney Tpx by donor type .	23
20	Overall survival for patients with first STCS Kidney Tpx by donor type and ABO compatibility of living donor organ recipients	23
21	Overall survival in patients with first STCS Liver Tpx by donor type . .	24
22	Graft failure free survival for common Tpx	27
23	Graft failure free survival by centre in Kidney transplantation	27
24	Graft failure free survival for common Tpx and centre	28
25	Graft failure free survival in patients with first STCS single Kidney Tpx by donor type and ABO compatibility of living donor organ recipients . .	29
26	Graft failure free survival in patients with first STCS Kidney Tpx by donor type	29
27	Cumulative incidence of graft failure	30
28	Cumulative incidence of graft failure for single Kidney Tpx by donor type	31
29	Cumulative incidence of graft failure for kidneys in single Tpx stratified by ABO compatibility	31
30	Cumulative incidence of graft failure for Kidney Tpx by donor type . . .	32

List of Tables

1	Number of patients enrolled	4
2	Number of patients enrolled by Tpx type	4
3	Number of Tpx types	5
4	Number of transplanted organs	5
5	Patients' characteristics for major Tpx types	6
6	Donors' characteristics by donor types	7
7	Number of enrolled patients by year and centre	10
8	Number of Tpx by year and centre	10
9	Kidney patients' characteristics by donor type	13
10	Liver patients' characteristics by donor type	16
11	Patients' current consent against consent status at first transplantation	18
12	Follow-up information of patients	19
13	Number of patients who dropped out by Tpx type	19
14	Overall mortality	20
15	Summary for graft failures	25
16	Graft failures in double Tpx	25
17	Graft failure and related patients' death	26
18	Overview of patients with incident cancer	33
19	Patients with incident cancer	33
20	Overview of incident cancer occurrence	34
21	Overview of patients with incident skin cancer	35
22	Patients with incident skin cancer	35
23	Overview of incident skin cancer occurrence	35
24	Number of pediatric patients (under 18) by first Tpx type	36
25	Number of Tpx in pediatric patients by transplantation type and centre	36
26	Overall mortality by Tpx type	37
27	Overall mortality by frequent Tpx type and centre	39
28	Overall mortality by rare Tpx scenarios	44
29	Overall mortality by rare Tpx scenarios and centre	45
30	Overall mortality in (single) kidney recipients by donor type	46
31	Graft failure by organ	47
32	Graft failure by organ and centre	49
33	Graft failure of kidneys (in first STCS single Tpx) by donor type	54

Contents

1 Comments from the centres	1
2 News and updates	2
3 Patients, transplantations and transplanted organs	3
3.1 Definitions applied	3
3.2 Overview and baseline demographic data	4
3.3 STCS patient enrolment by calendar time	8
3.4 Transplantation activities by centre and year	10
3.5 Transplantations by centre	11
3.6 Single Kidney transplantation by donor type	12
3.7 Single Liver transplantation by donor type	15
4 Consent status	17
5 Mortality	19
5.1 Overall mortality	19
5.2 Mortality by transplantation and centre	21
5.3 Mortality in first single Kidney transplantation	23
5.4 Mortality in first single Liver transplantation by donortype	24
6 Graft failure and primary non-function	25
6.1 Graft failure	25
6.2 Graft failure free survival	27
6.3 Cumulative incidence of graft failure	30
7 Cancer	33
7.1 Cancer other than skin	33
7.2 Skin cancer	35
8 Specific Populations	36
8.1 Pediatric patients	36
A Overall mortality by transplantation type	37
B Overall mortality in patients with common Tpx scenarios by centre	39
C Overall mortality in patients with rare Tpx scenarios	44
D Overall mortality in first Kidney transplantation	46
E Graft failure by organ, centre and donortype	47
F Technical summary	55

1 Comments from the centres

all centres: awaiting approval

2 News and updates

News:

- The current report is reduced to a minimal version without Samples, Infections and HLA mismatches chapters due to the migration to the new STCS data collection system: 3LC. An addendum will follow.

3 Patients, transplantations and transplanted organs

3.1 Definitions applied

- The term "enrollment" refers to the inclusion of all patients in the Swiss Transplant Cohort Study (STCS) from January 1, 2008, to December 31, 2023. Data is collected from these patients from the date of transplantation until the end of follow-up, which is 18 October 2024. The aforementioned data is included in the report.
- First transplantation:
 - Patients with a first solid organ transplantation in their medical history at the time of STCS enrolment
- Re-transplantation:
 - Patients with a repetition of the same type of transplantation (Re-Tpx)
 - Example: Re-Tpx of a kidney allograft after failure of a previous kidney graft
- Second transplantation:
 - Patients with a second transplantation that differs from the preceding transplantation type
 - Example: Transplantation of a pancreas following a single Kidney transplantation
- Simultaneous transplantation:
 - Simultaneous (eg double or triple) transplantation refer to multiple organs that originate from the same donor (e.g. Kidney-Pancreas).
 - Simultaneous transplantation can be categorized as first, re- or second transplantation.
- Every transplant procedure can consist of a single or simultaneous transplantation.
- Knowledge on previous solid organ transplantations from the pre-STCS era (before January 2008) is considered. Patients may thus be enrolled within the STCS as a re- or a second transplantation.
- Sequences of previous Islets transplantations have been counted as one prior transplantation.
- Human stem cell transplantations are not considered in this report.

3.2 Overview and baseline demographic data

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

Table 1: Number of patients enrolled

	Patients	(%)
Total number	8005	100.0
Single Tpx at enrolment	7721	96.5
Double Tpx at enrolment	281	3.5
Triple Tpx at enrolment	3	0.0
1st Tpx at enrolment	7226	90.3
Re-Tpx at enrolment	631	7.9
2nd Tpx at enrolment	148	1.8
HSCT prior to enrolment	42	0.5

Table 2: Number of patients enrolled by Tpx type

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	8005	7226	90.3	631	7.9	148	1.8
Kidney	4598	3967	86.3	551	12.0	80	1.7
Liver	1755	1700	96.9	47	2.7	8	0.5
Lung	719	694	96.5	13	1.8	12	1.7
Heart	591	581	98.3	6	1.0	4	0.7
Islets	41	12	29.3	11	26.8	18	43.9
Pancreas	15	9	60.0	0	0.0	6	40.0
Small bowel	2	1	50.0	1	50.0	0	0.0
Kidney - Pancreas	161	154	95.7	1	0.6	6	3.7
Kidney - Liver	65	57	87.7	0	0.0	8	12.3
Kidney - Islets	27	26	96.3	0	0.0	1	3.7
Kidney - Heart	16	12	75.0	1	6.2	3	18.8
Kidney - Lung	2	1	50.0	0	0.0	1	50.0
Liver - Lung	4	4	100.0	0	0.0	0	0.0
Liver - Pancreas	1	1	100.0	0	0.0	0	0.0
Heart - Lung	1	1	100.0	0	0.0	0	0.0
Islets - Liver	1	1	100.0	0	0.0	0	0.0
Pancreas - Small bowel	3	3	100.0	0	0.0	0	0.0
Kidney - Islets - Liver	1	0	0.0	0	0.0	1	100.0
Liver - Pancreas - Small bowel	1	1	100.0	0	0.0	0	0.0
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 transplantations performed and the number of transplanted organs.

Table 3: Number of Tpx types

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	8495	7226	85.1	1026	12.1	243	2.9
Kidney	4766	3967	83.2	685	14.4	114	2.4
Liver	1931	1700	88.0	211	10.9	20	1.0
Lung	747	694	92.9	38	5.1	15	2.0
Heart	598	581	97.2	13	2.2	4	0.7
Islets	127	12	9.4	72	56.7	43	33.9
Pancreas	27	9	33.3	1	3.7	17	63.0
Small bowel	2	1	50.0	1	50.0	0	0.0
Kidney - Pancreas	165	154	93.3	3	1.8	8	4.8
Kidney - Liver	69	57	82.6	0	0.0	12	17.4
Kidney - Islets	29	26	89.7	1	3.4	2	6.9
Kidney - Heart	16	12	75.0	1	6.2	3	18.8
Kidney - Lung	3	1	33.3	0	0.0	2	66.7
Liver - Lung	4	4	100.0	0	0.0	0	0.0
Liver - Pancreas	1	1	100.0	0	0.0	0	0.0
Heart - Lung	1	1	100.0	0	0.0	0	0.0
Islets - Liver	2	1	50.0	0	0.0	1	50.0
Pancreas - Small bowel	3	3	100.0	0	0.0	0	0.0
Kidney - Islets - Liver	1	0	0.0	0	0.0	1	100.0
Liver - Pancreas - Small bowel	2	1	50.0	0	0.0	1	50.0
Islets - Liver - Lung	1	1	100.0	0	0.0	0	0.0

Table 4: Number of transplanted organs

	Total	First Tpx	(%)	Re Tpx	(%)	Second Tpx	(%)
Total	8796	7490	85.2	1098	12.5	208	2.4
Kidney	5049	4217	83.5	719	14.2	113	2.2
Liver	2011	1765	87.8	220	10.9	26	1.3
Lung	756	701	92.7	39	5.2	16	2.1
Heart	615	594	96.6	15	2.4	6	1.0
Pancreas	198	168	84.8	14	7.1	16	8.1
Islets	160	40	25.0	89	55.6	31	19.4
Small bowel	7	5	71.4	2	28.6	0	0.0

Table 5: Patients' characteristics for major Tpx types

	Total*	Kidney	Liver	Lung	Heart	Kidney - Pancreas
Total number of patients	7824	4598	1755	719	591	161
Age (yrs), median	55	55	56	55	51	44
Age (yrs), IQR	(42-62)	(43-63)	(46-62)	(42-61)	(36-59)	(37-52)
Age (yrs), min; max	0; 82	1; 82	0; 77	4; 73	0; 71	23; 64
Male, n(%)	5073 (64.8%)	2975 (64.7%)	1193 (68%)	381 (53%)	425 (71.9%)	99 (61.5%)
Pediatric, n(%)	363 (4.6%)	164 (3.6%)	128 (7.3%)	18 (2.5%)	53 (9%)	0 (0%)
Time on the waitinglist (yrs), median	1.0	1.6	0.6	0.6	0.6	1.3
- IQR	(0.3-2.3)	(0.4-3.3)	(0.2-1.2)	(0.2-1.2)	(0.2-1.3)	(0.6-2)
- min; max	0; 21.1	0; 20.7	0; 8.1	0; 9.4	0; 21.1	0; 10.4
Observation time (yrs), median	6.3	6.8	5.6	4.5	5.8	8.0
- IQR	(3-10.3)	(3.4-10.7)	(2.5-9.7)	(1.9-8.6)	(1.9-9.9)	(4-12.4)
- min; max	0; 16.8	0; 16.8	0; 16.8	0; 16.8	0; 16.5	0.1; 16.8
Number of deaths, n (%)	1706 (21.8%)	776 (16.9%)	466 (26.6%)	295 (41%)	145 (24.5%)	24 (14.9%)
Number of patients with at least one GF, n (%)	949 (12.1%)	497 (10.8%)	229 (13%)	134 (18.6%)	55 (9.3%)	34 (21.1%)
Alive, with graft failure, n(%)	486 (6.2%)	353 (7.7%)	91 (5.2%)	13 (1.8%)	5 (0.8%)	24 (14.9%)
Graft failure - related death, n(%)	234 (3%)	13 (0.3%)	75 (4.3%)	100 (13.9%)	46 (7.8%)	0 (0%)
Graft failure -> death, n(%)	229 (2.9%)	131 (2.8%)	63 (3.6%)	21 (2.9%)	4 (0.7%)	10 (6.2%)
Death without graft failure, n(%)	1243 (15.9%)	632 (13.7%)	328 (18.7%)	174 (24.2%)	95 (16.1%)	14 (8.7%)

(*) "Total" refers to the total number of patients with Tpx presented in this table

Table 6: Donors' characteristics by donor types

	Total	DBD	DCD	Living, KPD	Living related	Living unrelated
Total no. donors	4325	2045	442	64	863	911
Donor age (yrs), median	54	53	60	52	53	54
- IQR	(43-64)	(37-66)	(49-69)	(46.8-61.5)	(44-61)	(46-62)
- min; max	0; 89	0; 89	1; 87	24; 72	1; 84	0; 79
Male gender, n (%)	2058 (47.6%)	1108 (54.9%)	305 (69%)	26 (40.6%)	323 (39.1%)	296 (33.6%)
No. organs donated, median	1	3	2	1	1	1
- min; max	1; 8	1; 8	1; 6	1; 1	1; 1	1; 1

3.3 STCS patient enrolment by calendar time

Figure 1 shows the patient enrollment activity by quarter from January 2008 till December 2023.

Figure 1: Quarterly patient enrolment by donor type

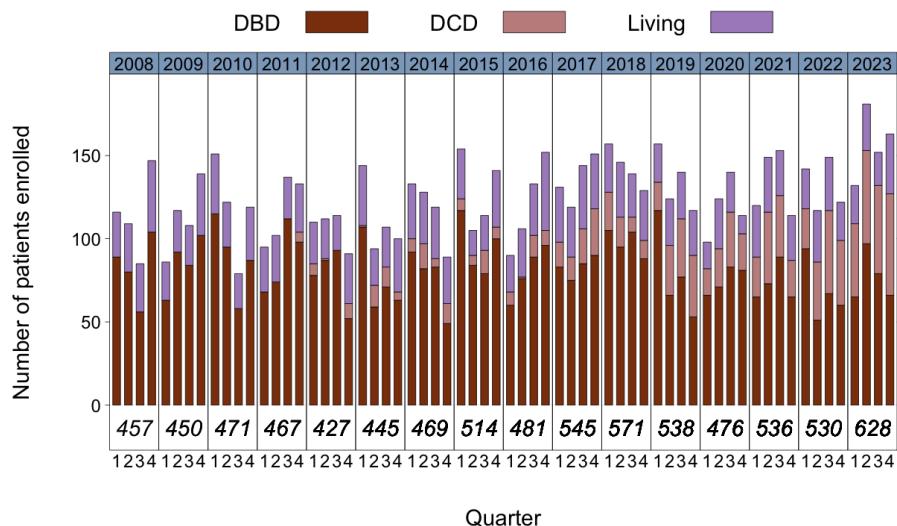
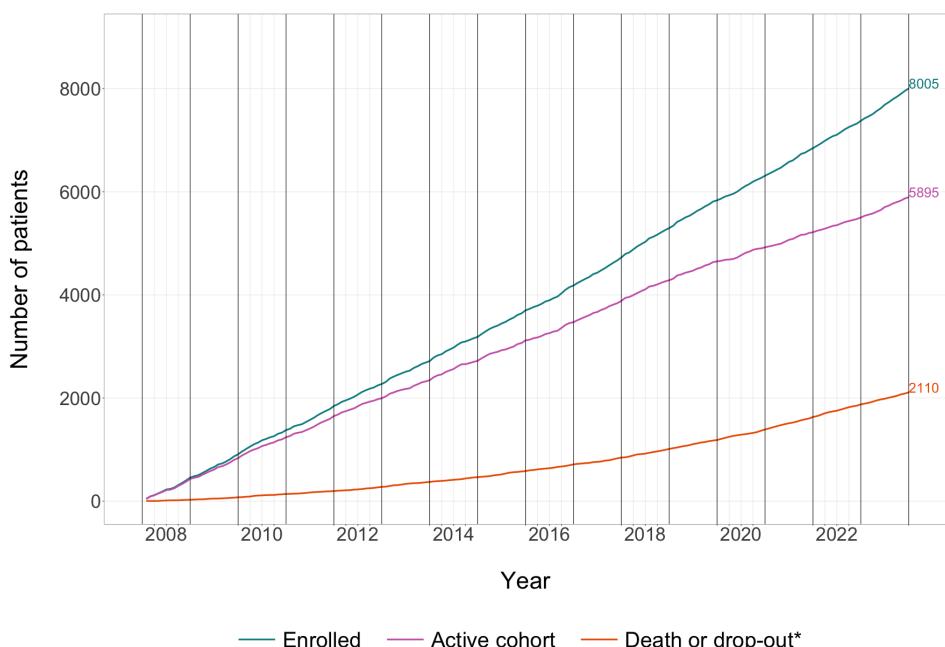
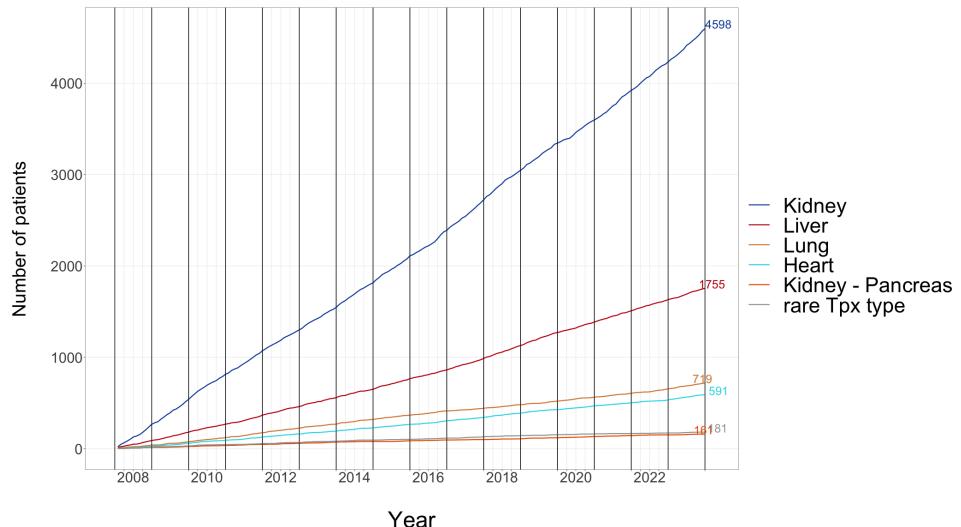


Figure 2: Cumulative patient enrolment



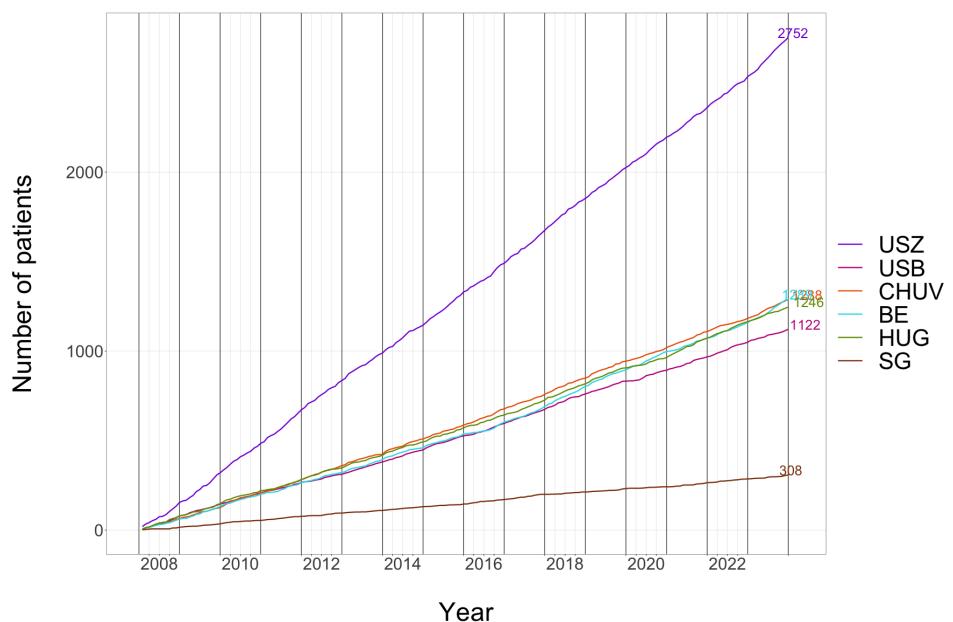
*including patients with renal Tpx failure who are no longer candidates for retransplantation.

Figure 3: Cumulative patient enrolment by Tpx type



'Rare Tpx type' includes: Islets, Pancreas, Small bowel, Kidney - Liver, Kidney - Islets, Kidney - Heart, Kidney - Lung, Liver - Lung, Liver - Pancreas, Heart - Lung, Islets - Liver, Pancreas - Small bowel, Kidney - Islets - Liver, Liver - Pancreas - Small bowel, Islets - Liver - Lung.

Figure 4: Cumulative patient enrolment by center



3.4 Transplantation activities by centre and year

Table 7: Number of enrolled patients by year and centre

Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%	
Total	8005	2752	34.4	1122	14	1288	16.1	1289	16.1	1246	15.6	308	3.8
2023	628	218	34.7	72	11.5	105	16.7	130	20.7	81	12.9	22	3.5
2022	530	174	32.8	82	15.5	74	14	87	16.4	92	17.4	21	4
2021	536	165	30.8	75	14	90	16.8	74	13.8	109	20.3	23	4.3
2020	476	169	35.5	61	12.8	75	15.8	103	21.6	58	12.2	10	2.1
2019	538	173	32.2	71	13.2	95	17.7	92	17.1	88	16.4	19	3.5
2018	571	178	31.2	86	15.1	90	15.8	113	19.8	91	15.9	13	2.3
2017	545	184	33.8	79	14.5	82	15	87	16	84	15.4	29	5.3
2016	481	160	33.3	69	14.3	90	18.7	66	13.7	71	14.8	25	5.2
2015	514	186	36.2	79	15.4	78	15.2	77	15	79	15.4	15	2.9
2014	469	156	33.3	67	14.3	85	18.1	65	13.9	75	16	21	4.5
2013	445	153	34.4	69	15.5	64	14.4	74	16.6	70	15.7	15	3.4
2012	427	164	38.4	45	10.5	78	18.3	55	12.9	67	15.7	18	4.2
2011	467	187	40	58	12.4	74	15.8	65	13.9	60	12.8	23	4.9
2010	471	165	35	63	13.4	82	17.4	69	14.6	73	15.5	19	4
2009	450	165	36.7	67	14.9	61	13.6	70	15.6	68	15.1	19	4.2
2008	457	155	33.9	79	17.3	65	14.2	62	13.6	80	17.5	16	3.5

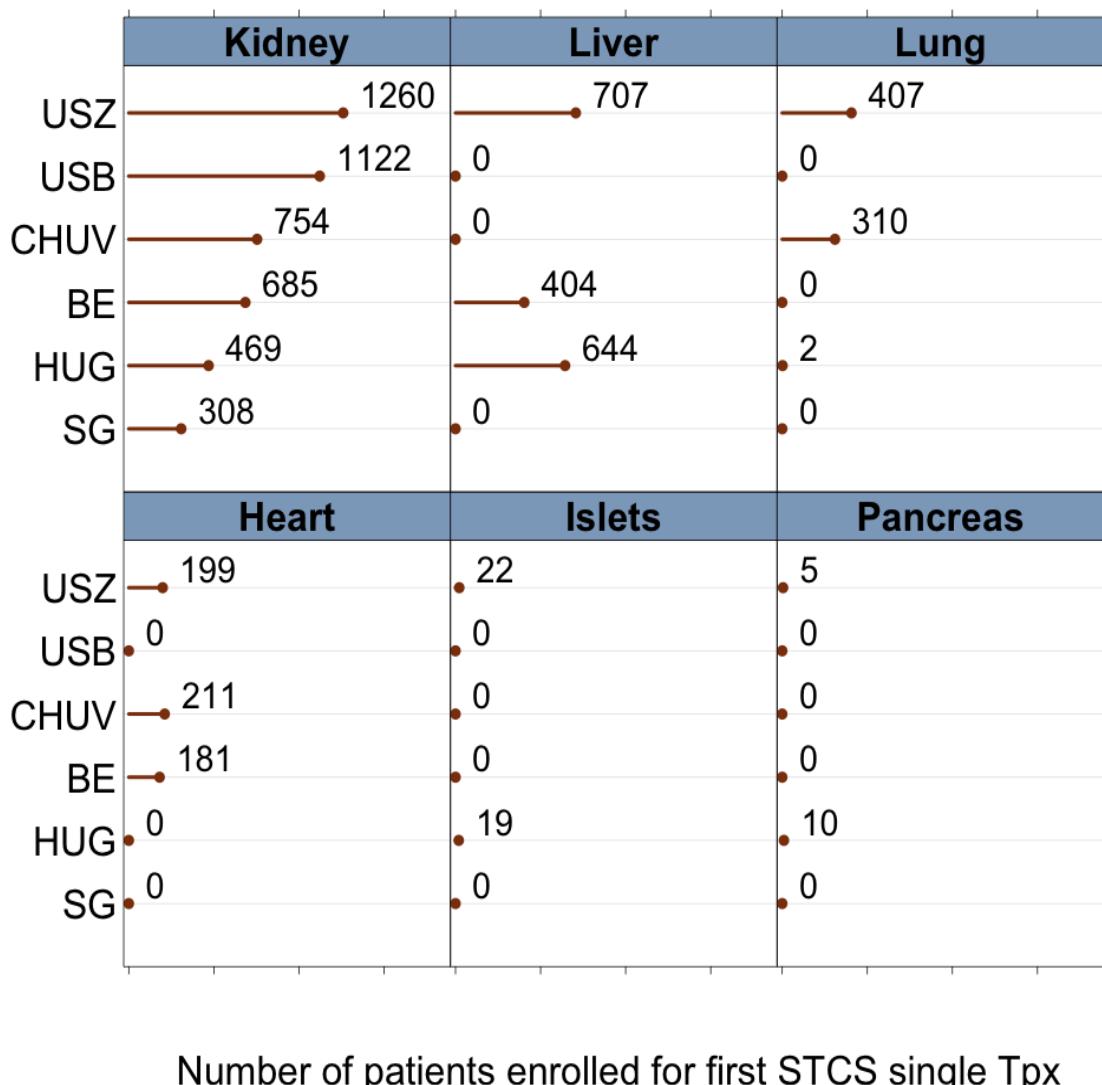
Table 8: Number of Tpx by year and centre

Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%	
Total	8495	2935	34.5	1146	13.5	1337	15.7	1386	16.3	1376	16.2	315	3.7
2023	675	236	35	74	11	111	16.4	138	20.4	93	13.8	23	3.4
2022	571	186	32.6	86	15.1	80	14	97	17	101	17.7	21	3.7
2021	586	181	30.9	77	13.1	93	15.9	90	15.4	122	20.8	23	3.9
2020	519	182	35.1	65	12.5	79	15.2	112	21.6	70	13.5	11	2.1
2019	582	179	30.8	73	12.5	101	17.4	108	18.6	102	17.5	19	3.3
2018	599	186	31.1	91	15.2	90	15	121	20.2	98	16.4	13	2.2
2017	578	197	34.1	79	13.7	86	14.9	93	16.1	93	16.1	30	5.2
2016	503	171	34	69	13.7	91	18.1	72	14.3	74	14.7	26	5.2
2015	555	199	35.9	81	14.6	83	15	82	14.8	94	16.9	16	2.9
2014	504	178	35.3	68	13.5	88	17.5	67	13.3	81	16.1	22	4.4
2013	471	167	35.5	69	14.6	66	14	78	16.6	76	16.1	15	3.2
2012	448	173	38.6	45	10	81	18.1	56	12.5	75	16.7	18	4
2011	492	197	40	60	12.2	76	15.4	71	14.4	64	13	24	4.9
2010	487	174	35.7	63	12.9	83	17	69	14.2	79	16.2	19	3.9
2009	466	173	37.1	67	14.4	64	13.7	70	15	73	15.7	19	4.1
2008	459	156	34	79	17.2	65	14.2	62	13.5	81	17.6	16	3.5

3.5 Transplantations by centre

Data from following rare transplantations are not shown: Small bowel (2, HUG), Liver - Lung (4, HUG), Liver - Pancreas (1, HUG), Heart - Lung (1, USZ), Islets - Liver (1, USZ; 1, HUG), Pancreas - Small bowel (2, HUG; 1, USZ), Islets - Liver - Lung (1, HUG) and Liver - Pancreas - Small bowel(2, USZ).

Figure 5: Number of patients with first STCS Kidney, Liver, Lung, Heart, Pancreas or Islets Tpx



3.6 Single Kidney transplantation by donor type

Figure 6 and 7 show all STCS single Kidney transplantations by donor type (DBD, DCD, Living related, Living unrelated and Living, KPD) and proportions of Kidney donor types within centres. Table 9 lists the Kidney patients characteristics by donor type. Figures 8 and 9 show the enrollment of patients from KPD and DCD donation by centre.

Figure 6: Number of single Kidney Tpx by donor type

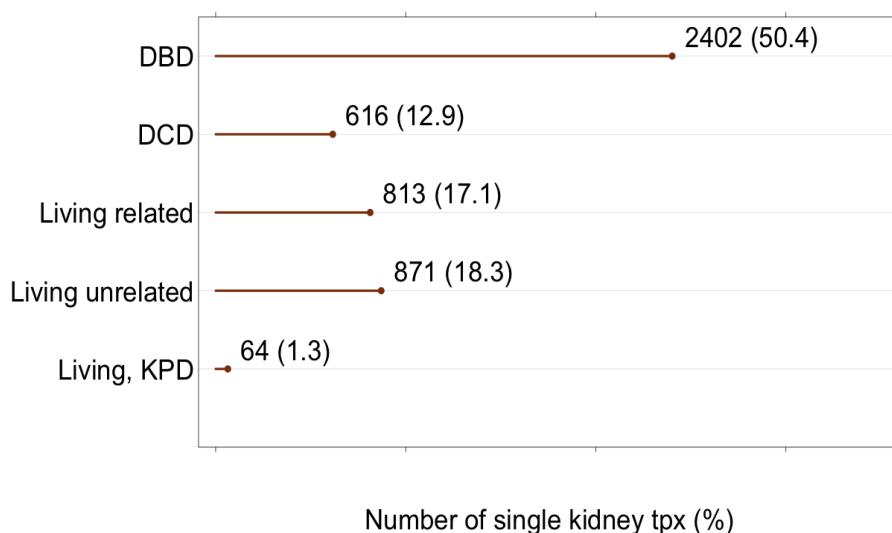


Figure 7: Distribution of donor types in all single Kidney Tpx

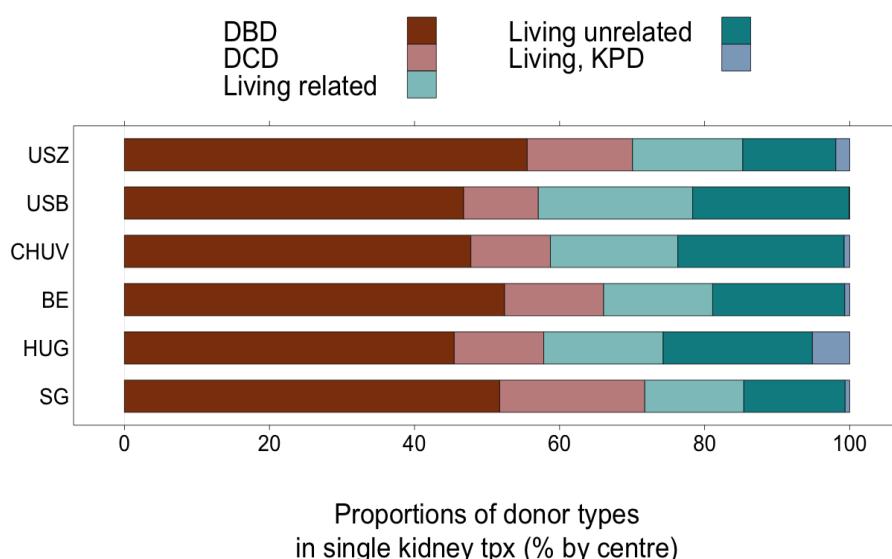


Table 9: Kidney patients' characteristics by donor type

	Total*	DBD	DCD	Living
Total number of patients	4598	2290	594	1714
Age (yrs), median	55	57	58	50
Age (yrs), IQR	(43-63)	(45-65)	(49-65)	(37-60)
Age (yrs), min; max	1; 82	1; 82	5; 81	1; 79
Pediatric, n(%)	164 (3.6%)	102 (4.5%)	5 (0.8%)	57 (3.3%)
Male, n(%)	2975 (64.7%)	1450 (63.3%)	369 (62.1%)	1156 (67.4%)
Donor age (yrs), median	55	55	58	54
- IQR	(45-63)	(41-65)	(48-64)	(46-62)
- min; max	0; 88	0; 88	1; 81	1; 84
Cold ischemia time (yrs), median	6.7	9.2	8.7	1.7
- IQR	(2.1-10)	(7.1-12.2)	(7.1-10.9)	(1.4-2.3)
- min; max	0.2; 58	0.3; 30	3.4; 40.2	0.2; 58
Time on the waitinglist (yrs), median	1.6	2.6	2.8	0.4
- IQR	(0.4-3.3)	(1.4-4.1)	(1.5-4.2)	(0.1-1)
- min; max	0; 20.7	0; 20.7	0; 13	0; 13.3
Observation time (yrs), median	6.8	7.0	3.6	7.8
- IQR	(3.4-10.7)	(3.7-11)	(1.8-6.2)	(4.2-11.7)
- min; max	0; 16.8	0; 16.8	0; 13	0; 16.8
Number of DGF, n (%)	736 (16%)	408 (17.8%)	292 (49.2%)	36 (2.1%)
Number of deaths, n (%)	776 (16.9%)	511 (22.3%)	62 (10.4%)	203 (11.8%)
Number of patients with at least one GF, n (%)	497 (10.8%)	322 (14.1%)	49 (8.2%)	126 (7.4%)
Alive, with graft failure, n(%)	353 (7.7%)	222 (9.7%)	38 (6.4%)	93 (5.4%)
Graft failure - related death, n(%)	13 (0.3%)	7 (0.3%)	2 (0.3%)	4 (0.2%)
Graft failure -> death, n(%)	131 (2.8%)	93 (4.1%)	9 (1.5%)	29 (1.7%)
Death without graft failure, n(%)	632 (13.7%)	411 (17.9%)	51 (8.6%)	170 (9.9%)

Figure 8: Cumulative number of patients enrolled from KPD program by centre

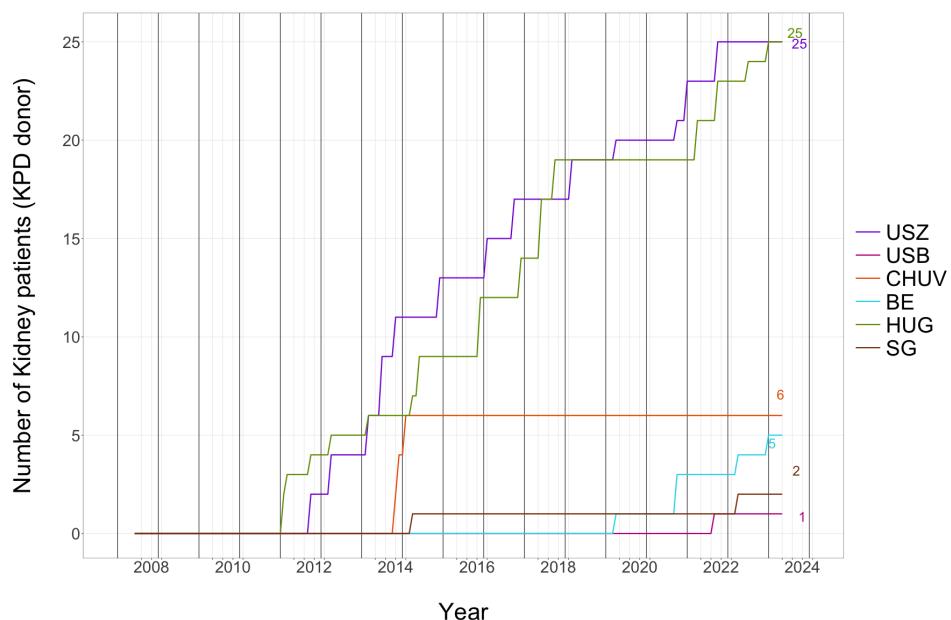
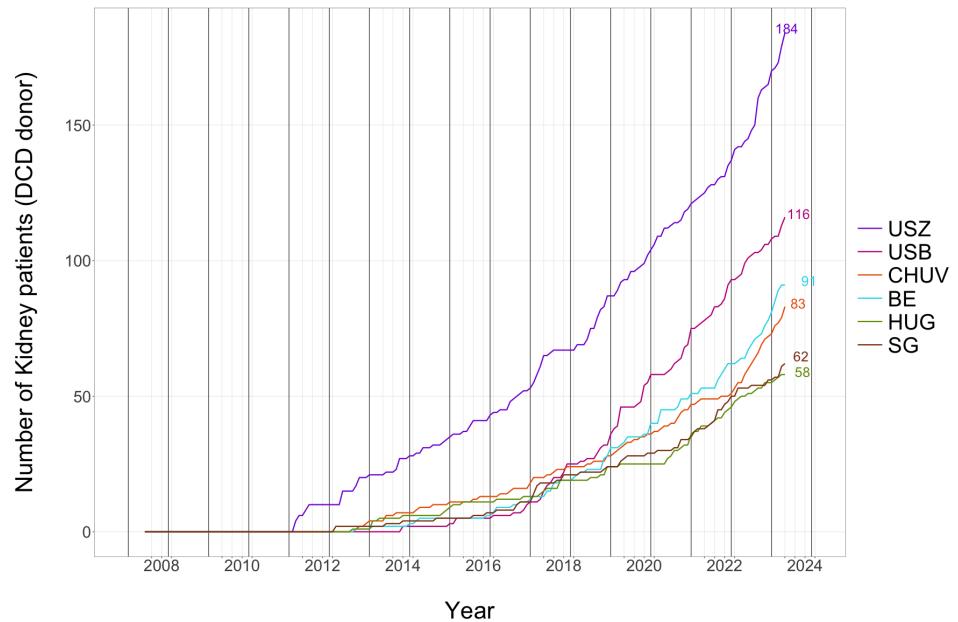


Figure 9: Cumulative number of patients with Kidney transplantations from DCD donation by centre



3.7 Single Liver transplantation by donor type

Figure 10 show all STCS single Liver transplantation by donor type and figure 11 the proportions of donor types in all single Liver transplantation within centres. Table 10 lists the Liver patients characteristics by donor type. Figures 12 show the enrollment of patients with Liver transplantation from DCD donation by centre.

Figure 10: Number of single Liver Tpx by donor type

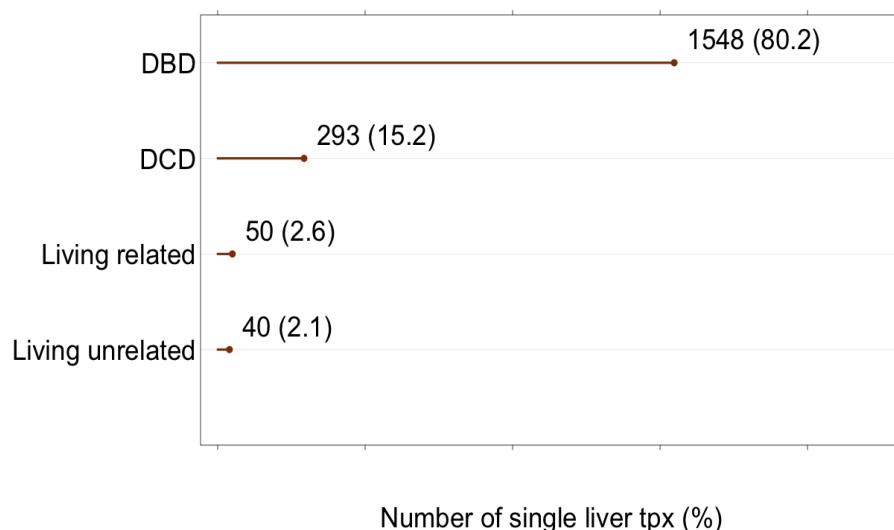


Figure 11: Distribution of donor types in all single Liver Tpx

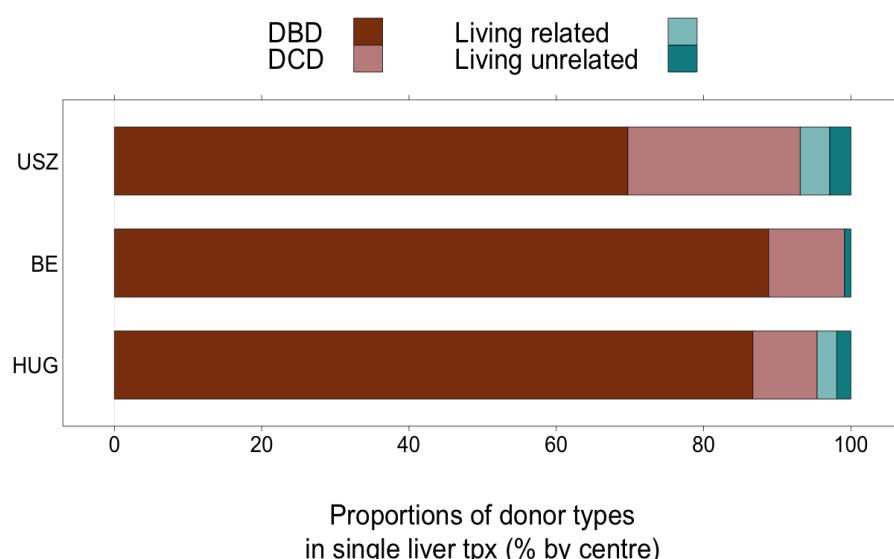
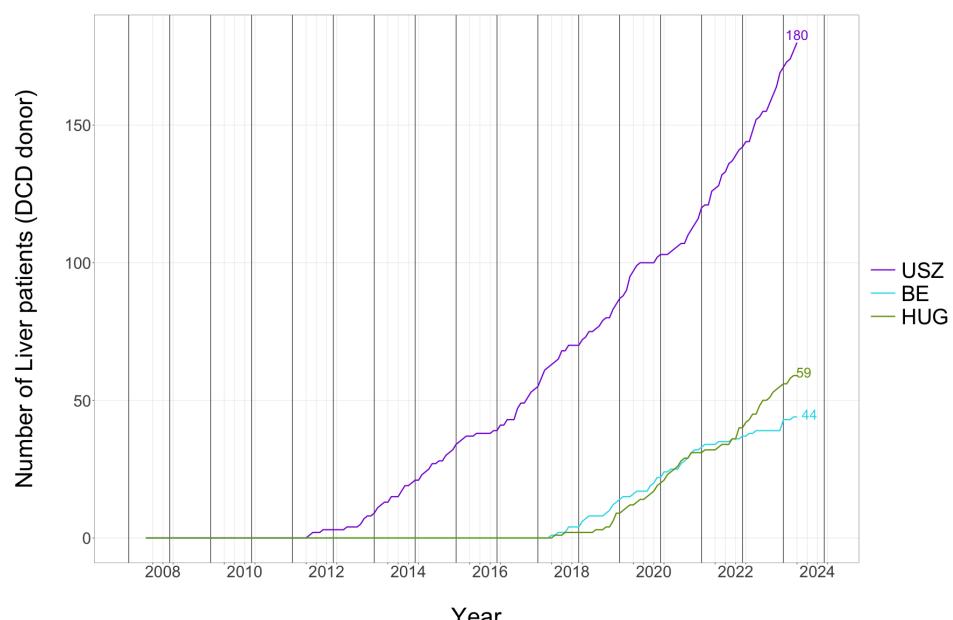


Table 10: Liver patients' characteristics by donor type

	Total*	DBD	DCD	Living
Total number of patients	1755	1384	283	88
Age (yrs), median	56.0	55.0	59.0	52.5
Age (yrs), IQR	(46-62)	(44-62)	(53-64)	(38.8-60)
Age (yrs), min; max	0; 77	0; 77	22; 73	0; 70
Pediatric, n(%)	128 (7.3%)	119 (8.6%)	0 (0%)	9 (10.2%)
Male, n(%)	1193 (68%)	917 (66.3%)	229 (80.9%)	47 (53.4%)
Donor age (yrs), median	55.0	55.0	61.0	37.5
- IQR	(39-67)	(39-67)	(49-70)	(31-46)
- min; max	0; 88	1; 88	13; 87	0; 68
Cold ischemia time (yrs), median	6.5	6.4	7.3	2.0
- IQR	(5.3-8.1)	(5.3-8)	(6.2-8.6)	(1.5-2.4)
- min; max	0.6; 17.2	0.8; 17.2	3.6; 17.2	0.6; 6.7
Time on the waitinglist (yrs), median	0.6	0.6	0.7	0.5
- IQR	(0.2-1.2)	(0.1-1.2)	(0.3-1.2)	(0.3-0.7)
- min; max	0; 8.1	0; 8.1	0; 6.3	0; 4
Observation time (yrs), median	5.6	6.2	3.3	6.5
- IQR	(2.5-9.7)	(2.9-10.5)	(1.5-5.3)	(2.4-11.7)
- min; max	0; 16.8	0; 16.8	0; 11.9	0; 16.8
Number of DGF, n (%)	47 (2.7%)	34 (2.5%)	8 (2.8%)	5 (5.7%)
Number of deaths, n (%)	466 (26.6%)	364 (26.3%)	65 (23%)	37 (42%)
Number of patients with at least one GF, n (%)	229 (13%)	153 (11.1%)	52 (18.4%)	24 (27.3%)
Alive, with graft failure, n(%)	91 (5.2%)	59 (4.3%)	24 (8.5%)	8 (9.1%)
Graft failure - related death, n(%)	75 (4.3%)	57 (4.1%)	12 (4.2%)	6 (6.8%)
Graft failure -> death, n(%)	63 (3.6%)	37 (2.7%)	16 (5.7%)	10 (11.4%)
Death without graft failure, n(%)	328 (18.7%)	270 (19.5%)	37 (13.1%)	21 (23.9%)

Figure 12: Cumulative number of patients with Liver transplantsations from DCD donation by centre



4 Consent status

Figure 13 presents the latest known consent status - current consent status. In Figure 14, current consent status is given proportionally within each centre. Table 11 shows patients' consent status change between enrollment and the current date. Absent (other) reasons include: Permanent illness/Too sick, Language/Communication barrier, Psychiatric disorder, Reminder process closed, Retrospectively captured patients and Other reason.

Figure 13: Patients current consent status

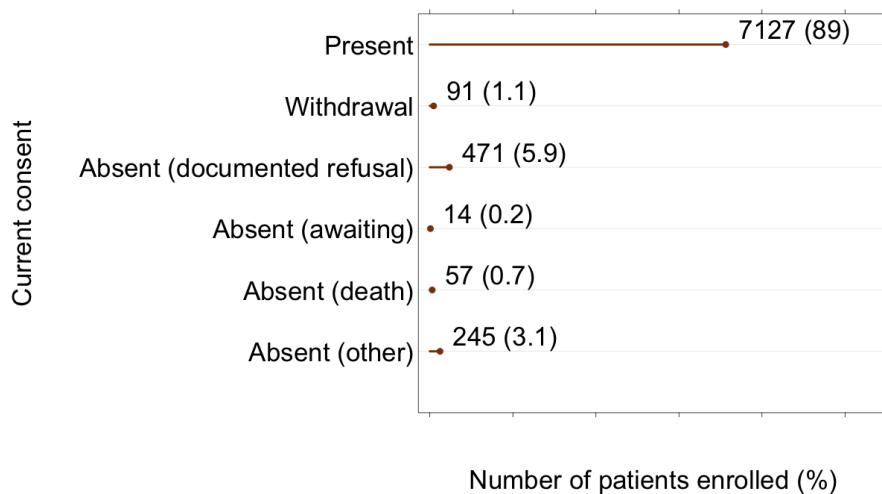


Figure 14: Patients current consent status by centre

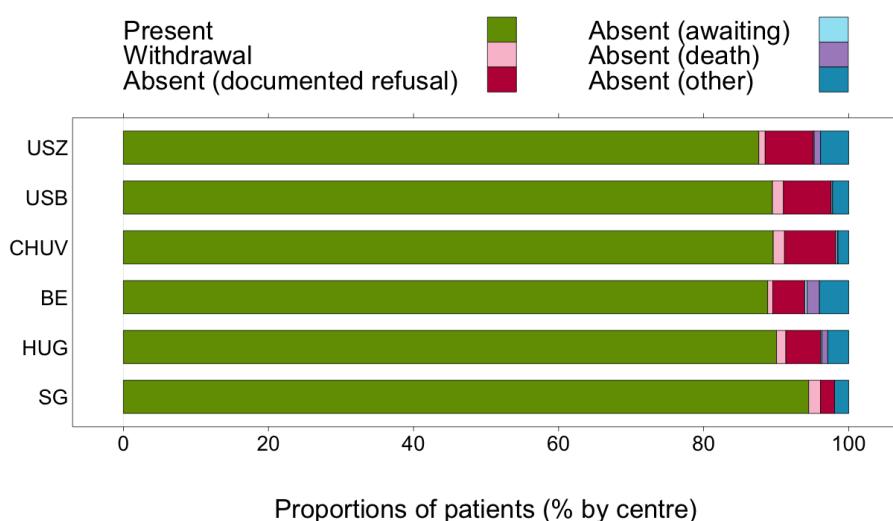


Table 11: Patients' current consent against consent status at first transplantation

	Total	C - Present	C - Withdrawal	C - Refused	C - Absent (awaiting)	C - Absent (death)	C - Absent (other)
Total	8005	7127	91	471	14	57	245
E - Present	6339	6251	79	4	1	1	3
E - Refused	391	28	1	362	-	-	-
E - Absent (awaiting)	1110	838	11	105	12	48	96
E - Absent (death)	7	-	-	-	-	7	-
E - Absent (other)	158	10	-	-	1	1	146

Remarks: 'C' stands for 'current consent status' and 'E' denotes the consent status at enrolment.
 Absent (other) reasons include: Permanent illness/Too sick, Language/Communication barrier, Psychiatric disorder, Reminder process closed, Other reason.

5 Mortality

In the following, survival probability 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 15, the 95%-confidence interval (CI) is given. Furthermore, survival probability estimates presented in the figures and tables are not adjusted for potential risk factors.

5.1 Overall mortality

Table 12: Follow-up information of patients

	Follow-up
Median follow-up duration (years)	6.31
IQR (years)	3 - 10.33
Maximum follow-up (years)*	16.79
Number of deaths	1763
Patients with any graft failure	995
Patients lost to follow-up**	223

* Time period from 1 January 2008 to 18 October 2024

** More details in Table 13.

Table 13: Number of patients who dropped out by Tpx type

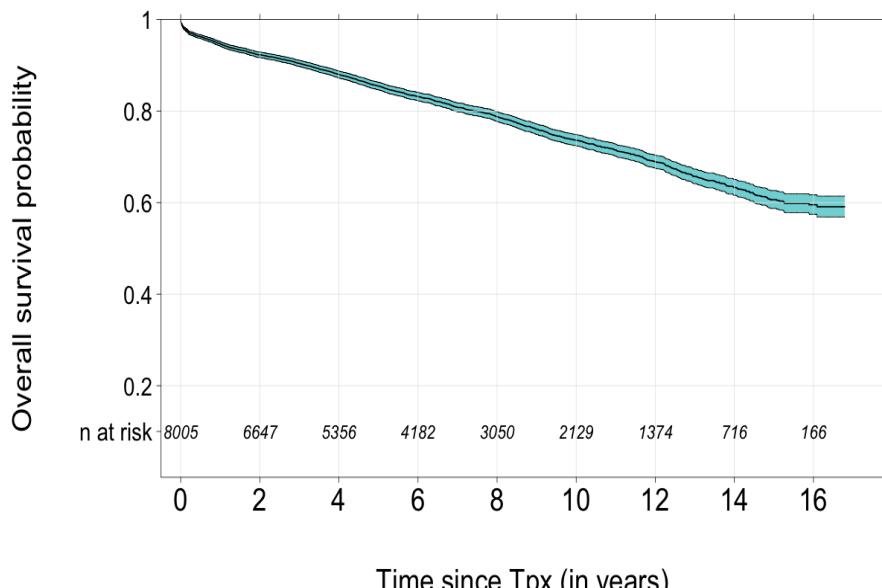
	BE	CHUV	HUG	SG	USB	USZ	Sum
Enrolled, N	1289	1288	1246	308	1122	2752	8005
Dropped out, N (%)	25 (1.9%)	63 (4.9%)	56 (4.5%)	4 (1.3%)	17 (1.5%)	58 (2.1%)	223 (2.8%)
- Heart	3	5	-	-	-	4	12
- Islets	-	-	-	-	-	2	2
- Kidney	16	49	20	4	17	26	132
- Kidney - Heart	-	1	-	-	-	-	1
- Kidney - Liver	-	-	1	-	-	-	1
- Kidney - Lung	-	1	-	-	-	-	1
- Kidney - Pancreas	-	-	1	-	-	3	4
- Liver	6	-	34	-	-	21	61
- Lung	-	7	-	-	-	2	9

Table 14: Overall mortality

Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Baseline	0.0	-	8005	0
1 month	1.9	(1.6, 2.2)	7851	151
6 months	3.8	(3.3, 4.2)	7694	300
1 year	5.3	(4.8, 5.8)	7426	425
2 year(s)	7.7	(7.1, 8.3)	6647	605
4 year(s)	12.0	(11.3, 12.8)	5356	890
6 year(s)	16.8	(15.9, 17.7)	4182	1158
8 year(s)	21.2	(20.2, 22.3)	3050	1353
10 year(s)	26.3	(25.1, 27.6)	2129	1527
12 year(s)	31.1	(29.6, 32.5)	1374	1641
14 year(s)	36.7	(34.9, 38.4)	716	1731
16 year(s)	40.5	(38.3, 42.6)	166	1762
Overall	40.9	(38.6, 43.1)	-	1763

Remarks: 'Cum.' stands for 'Cumulative'. The 95%-CI is given for 'Mortality'. The time point 'Overall' refers to the maximal follow-up time in the STCS (from January 2008 to 18 October 2024).

Figure 15: Overall survival



5.2 Mortality by transplantation and centre

In the following section only common transplantation types are presented. In Appendix C a short summary of rare transplantation types are presented in two tables.

Figure 16: Overall survival for common Tpx types

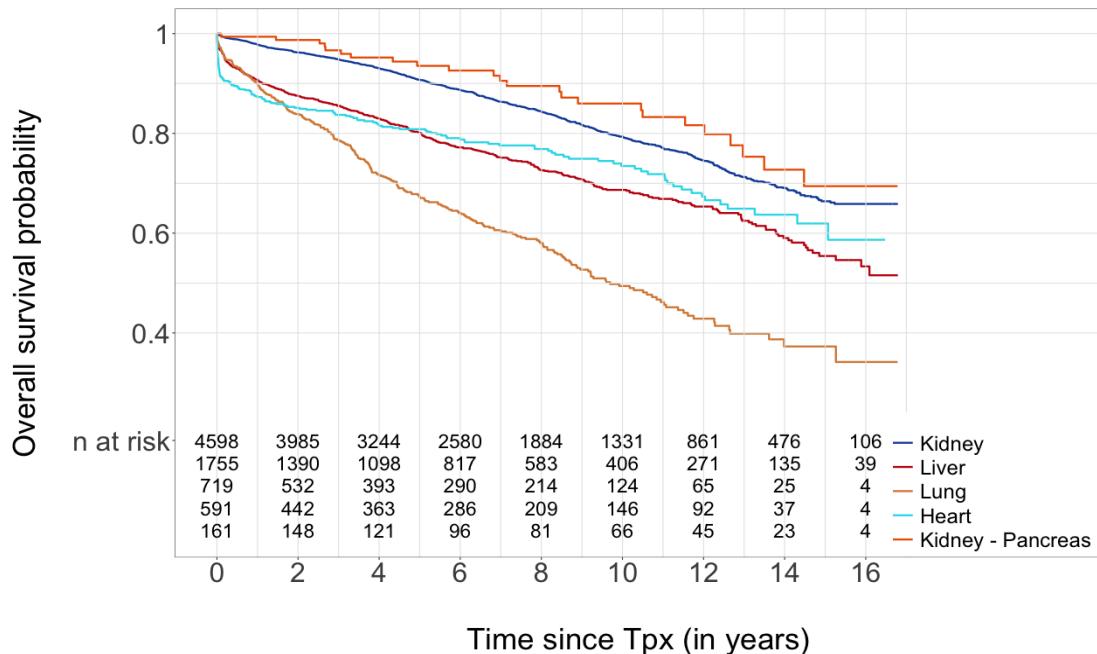


Figure 17: Overall survival for Kidney Tpx by centre

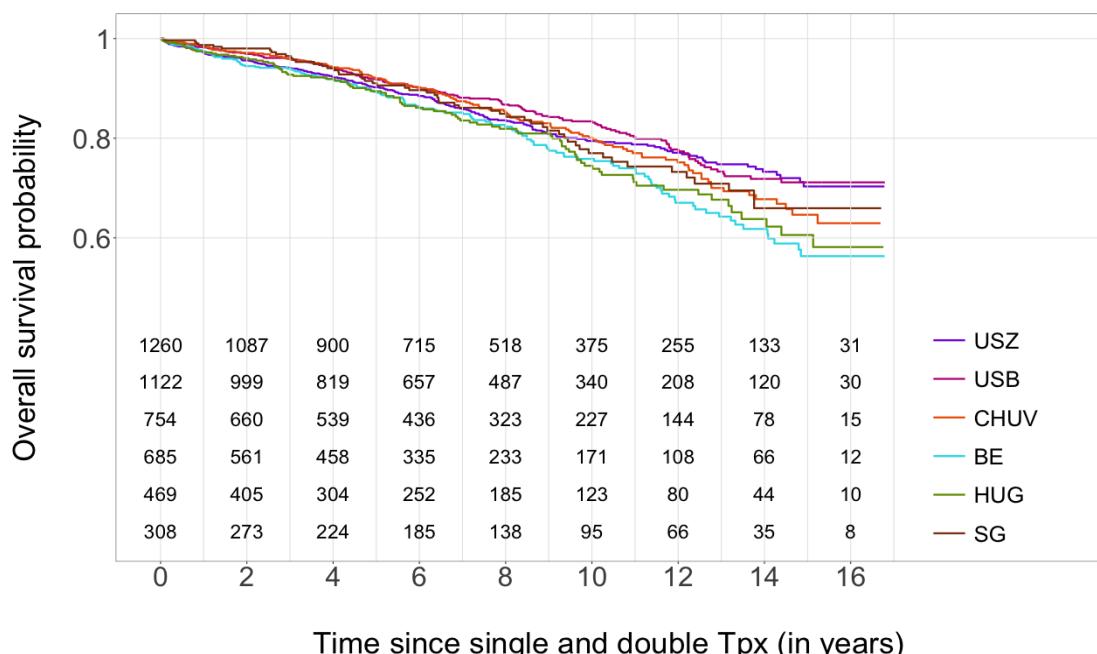
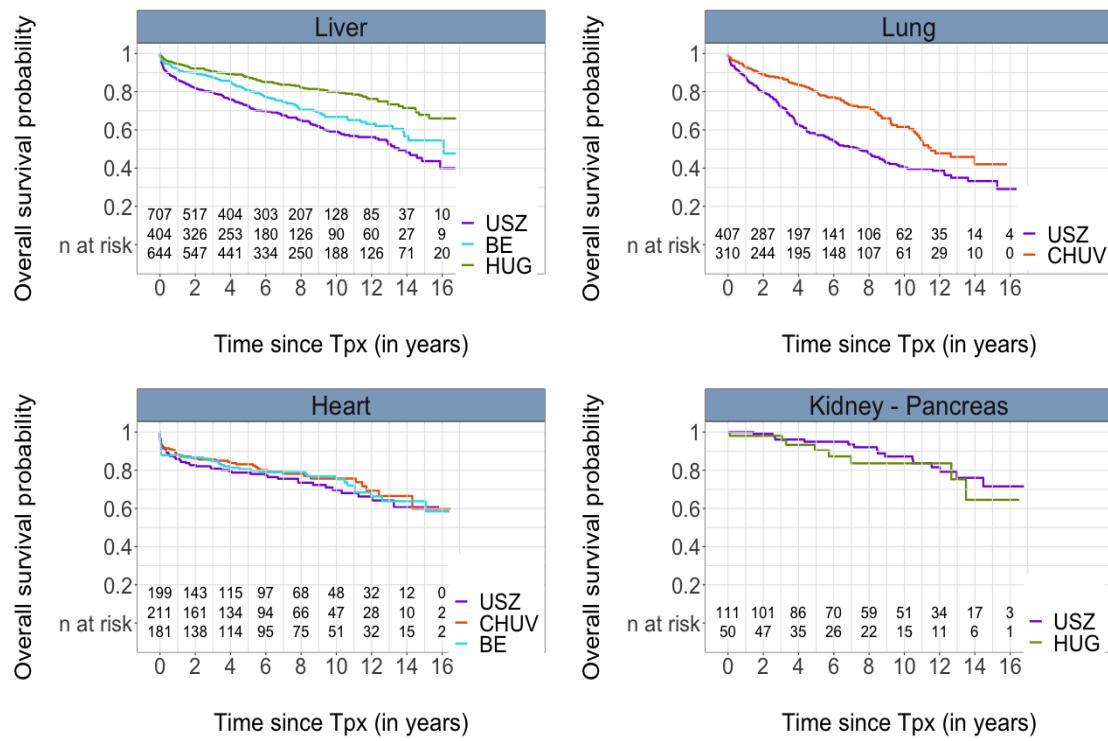


Figure 18: Overall survival for other common Tpx by centre



5.3 Mortality in first single Kidney transplantation

Overall survival for patients with Kidney transplantation as first STCS transplantation is presented separated by the donor type. In Figure 20, category 'Living' is separated in 'Living, ABO c' and 'Living, not ABO c'. The letter 'c' stands for 'compatible'.

Figure 19: Overall survival for patients with first STCS Kidney Tpx by donor type

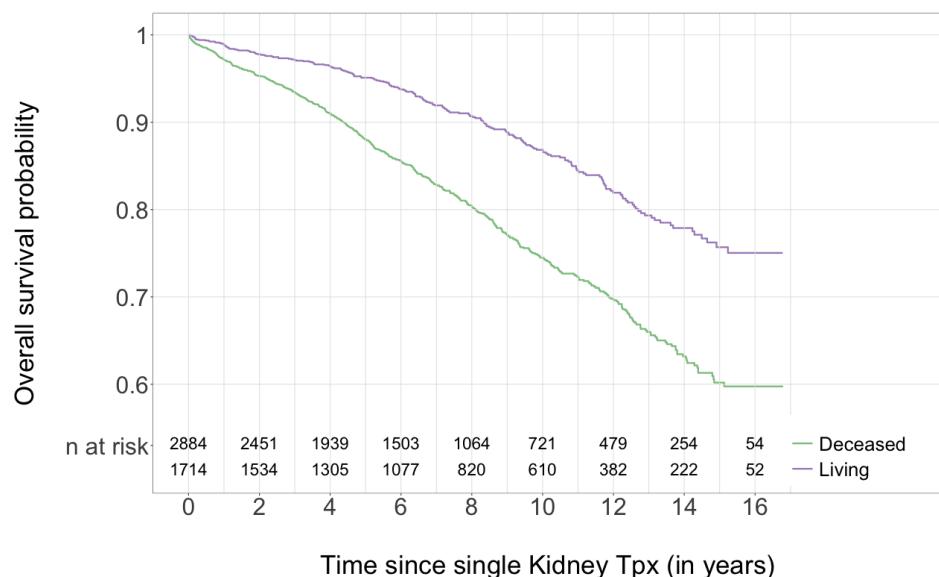
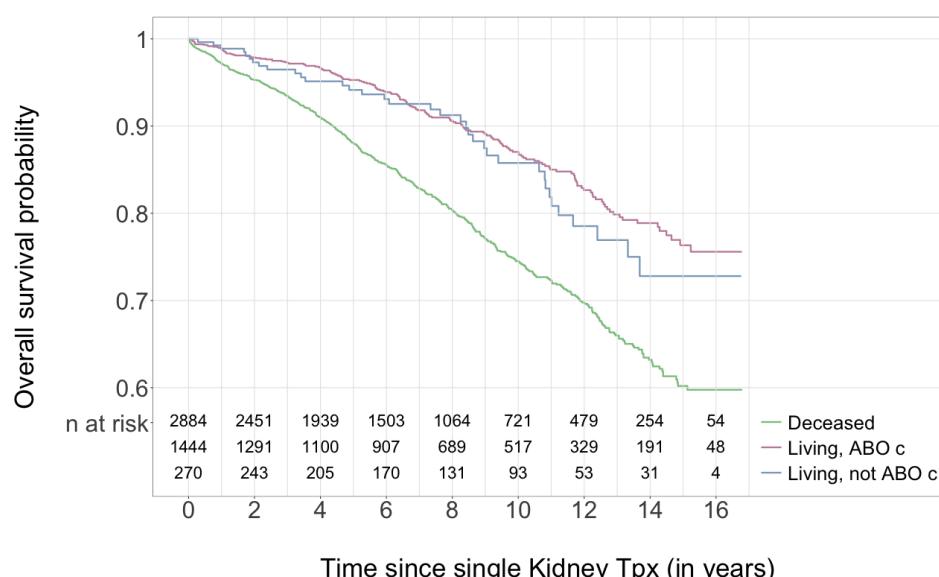
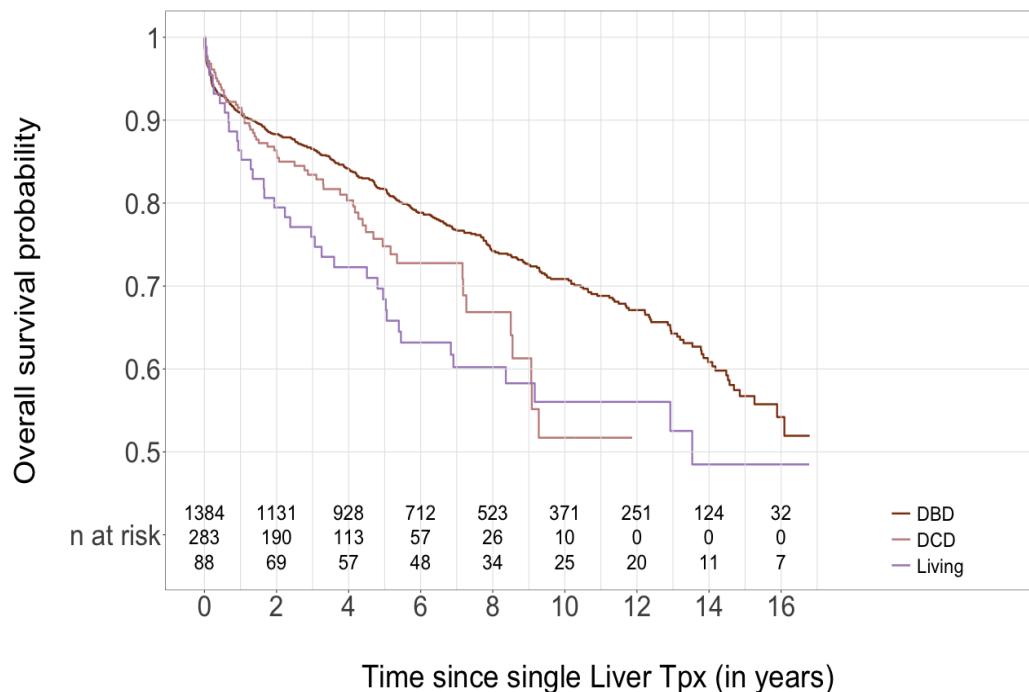


Figure 20: Overall survival for patients with first STCS Kidney Tpx by donor type and ABO compatibility of living donor organ recipients



5.4 Mortality in first single Liver transplantation by donortype

Figure 21: Overall survival in patients with first STCS Liver Tpx by donor type



6 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.

6.1 Graft failure

Graft failures (incl. grafts with primary non-function) are displayed on the layer of the transplanted organ (Tables 16 and 17). Table 15 gives a summary of numbers of graft failures on patient- and organ-level.

Table 15: Summary for graft failures

	N	(%)
Graft failure - total	1110	100.0
- in single Tpx	1022	92.1
- in double Tpx	82	7.4
- in triple Tpx	6	0.5
Patients with any graft failure	1005	
Patients with graft failure or death	2274	100.0
- graft failure and alive at end of follow-up	511	22.5
- graft failure followed by late death	245	10.8
- graft failure related death (at same day)	239	10.5
- death without any graft failure	1279	56.2

Table 16: Graft failures in double Tpx

	Total	Heart	Islets	Kidney	Liver	Lung	Pancreas	Small bowel
Total	82	3	12	30	6	2	27	2
Heart - Lung	2	1	-	-	-	1	-	-
Kidney - Heart	3	2	-	1	-	-	-	-
Kidney - Islets	19	-	12	7	-	-	-	-
Kidney - Liver	10	-	-	4	6	-	-	-
Kidney - Lung	1	-	-	1	-	-	-	-
Kidney - Pancreas	42	-	-	17	-	-	25	-
Liver - Lung	1	-	-	-	-	1	-	-
Pancreas - Small bowel	4	-	-	-	-	-	2	2

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

Table 17: Graft failure and related patients' death

	Total	All GF*	(%)	GF, late death	(%)	GF related death	(%)
Total	8796	1110	12.6	275	24.8	281	25.3
Kidney	5049	550	10.9	146	26.5	16	2.9
Liver	2011	282	14	74	26.2	103	36.5
Lung	756	147	19.4	21	14.3	112	76.2
Heart	615	59	9.6	4	6.8	50	84.7
Islets	160	31	19.4	12	38.7	-	-
Pancreas	198	36	18.2	13	36.1	-	-
Small bowel	7	5	71.4	5	100	-	-

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

6.2 Graft failure free survival

In the following, estimates of graft failure free survival are not adjusted for potential risk factors. Only the first STCS transplantation of each patient is considered. Figure 25 shows graft failure free survival only for patients with first STCS Kidney transplantation.

Figure 22: Graft failure free survival for common Tpx

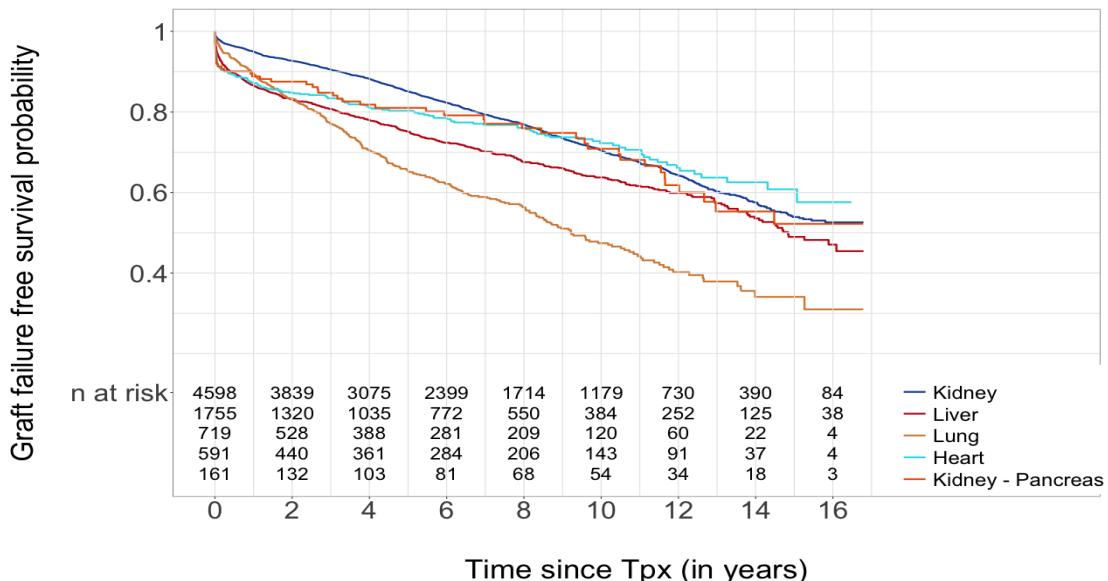


Figure 23: Graft failure free survival by centre in Kidney transplantation

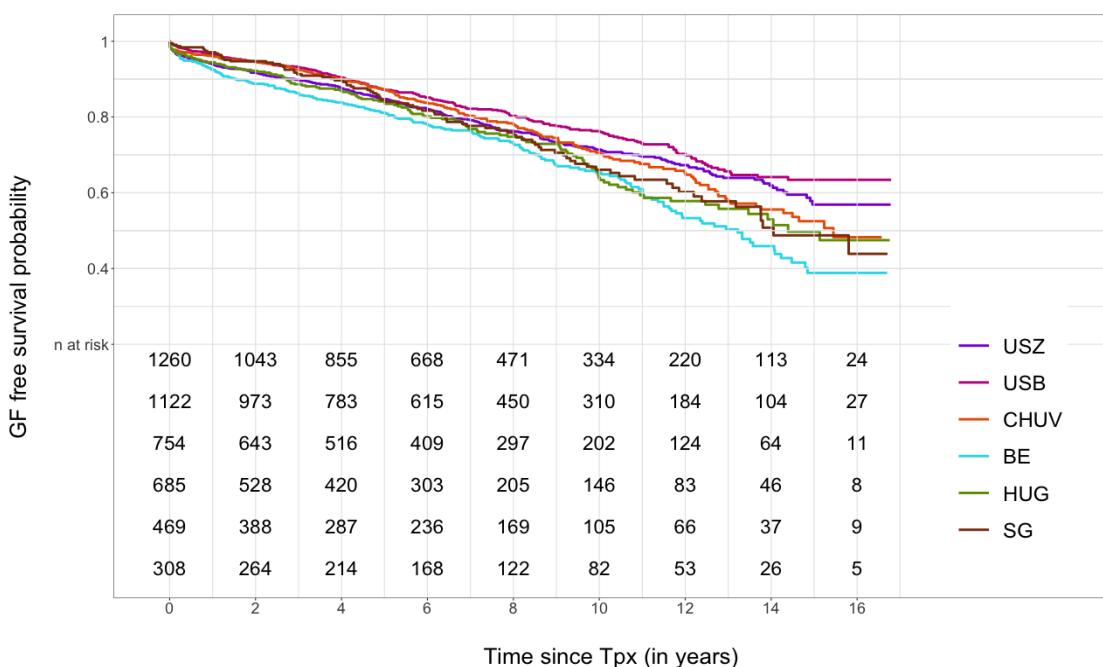


Figure 24: Graft failure free survival for common Tpx and centre

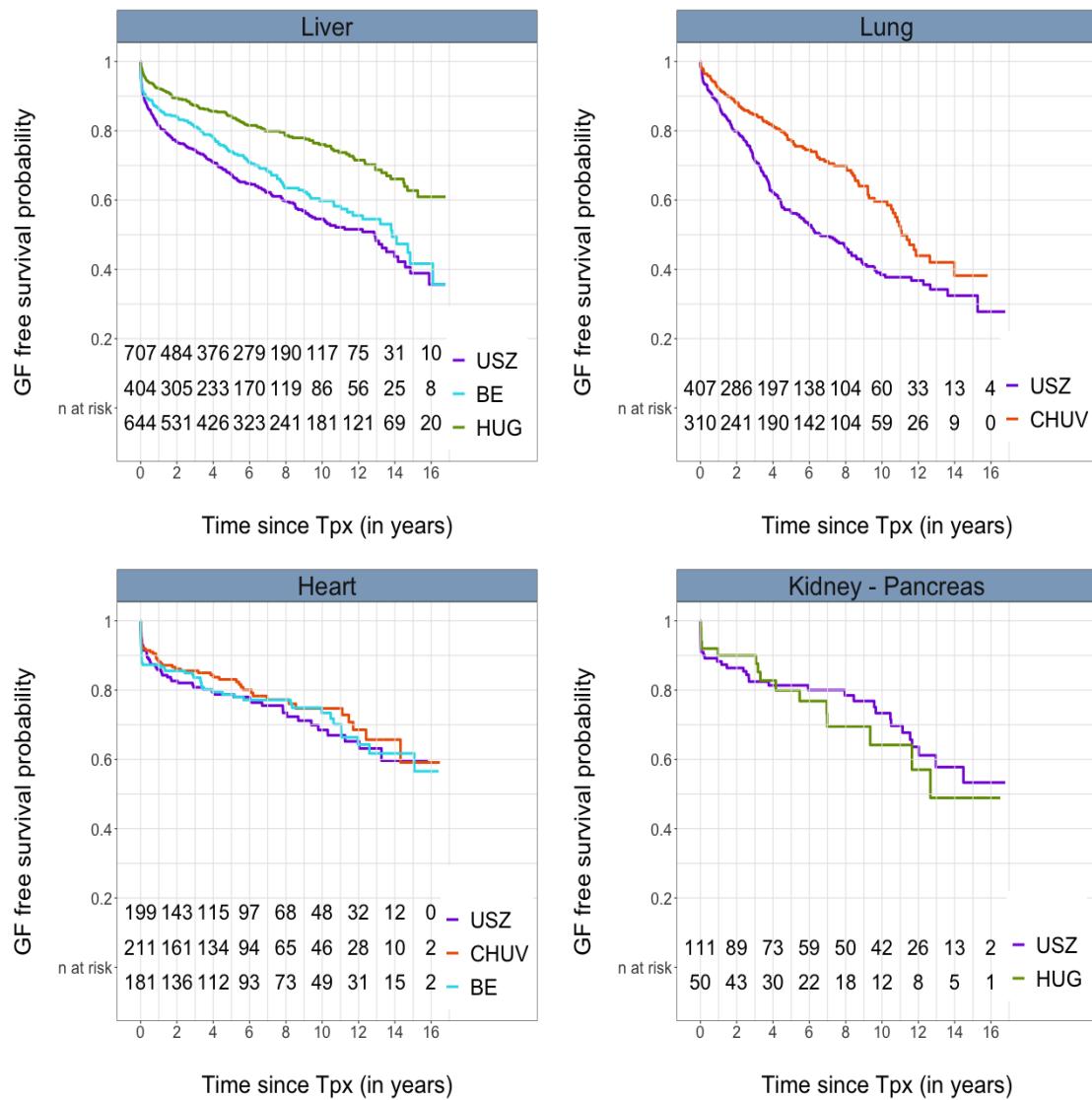


Figure 25: Graft failure free survival in patients with first STCS single Kidney Tpx by donor type and ABO compatibility of living donor organ recipients

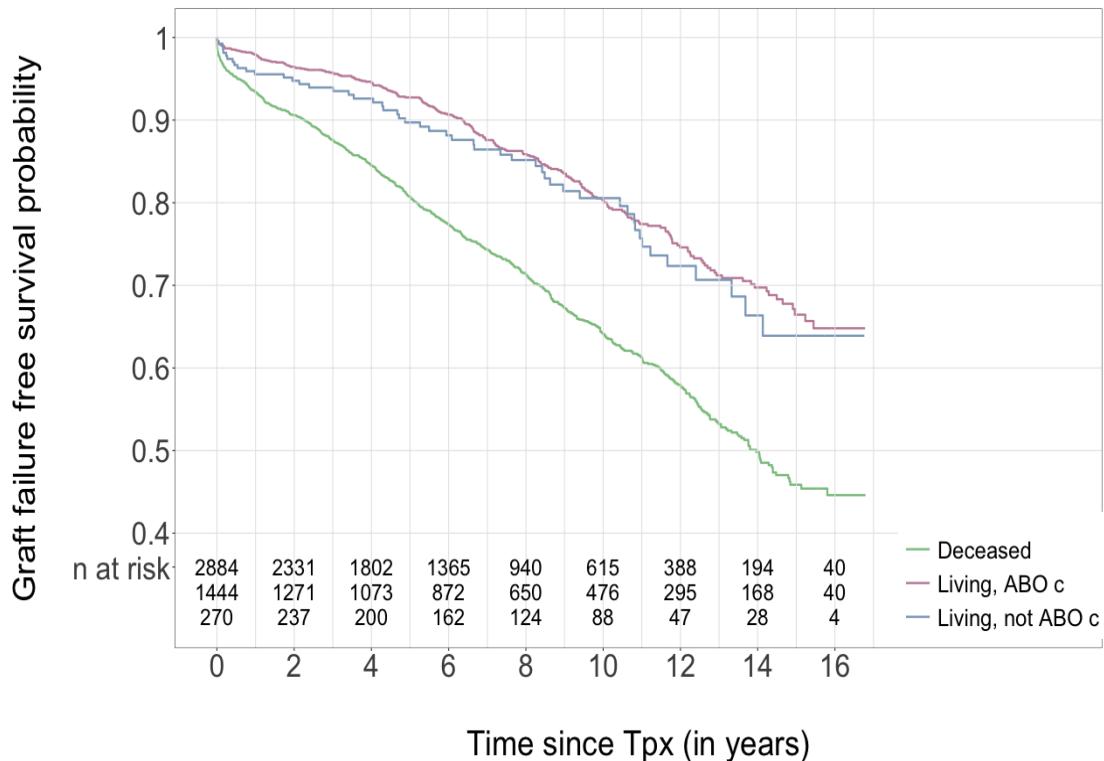
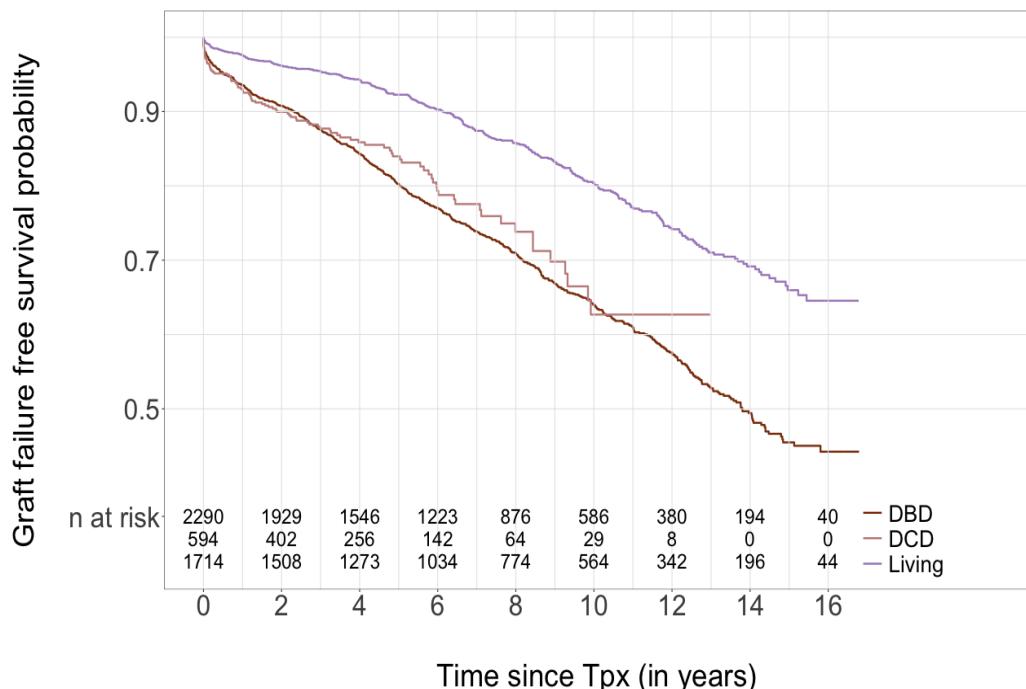


Figure 26: Graft failure free survival in patients with first STCS Kidney Tpx by donor type



6.3 Cumulative incidence of graft failure

The cumulative incidence (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). In Figure 27, Table 31 and Table 32 double kidneys are counted as one kidney.

Figure 27: Cumulative incidence of graft failure

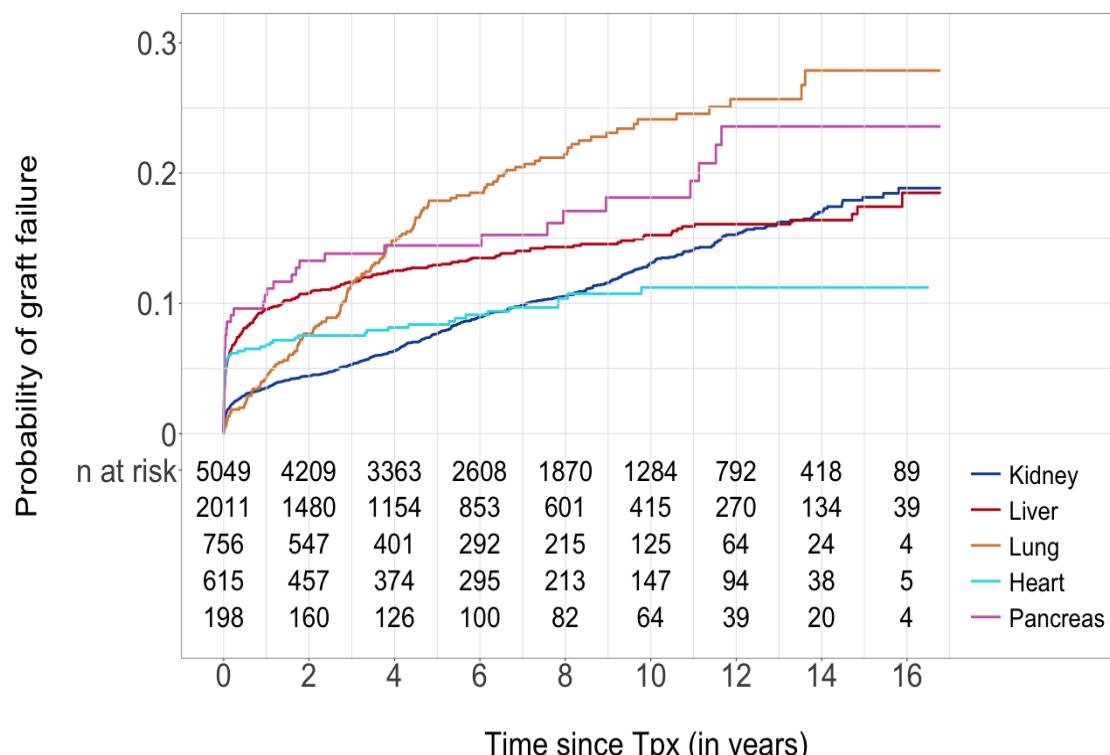


Figure 28: Cumulative incidence of graft failure for single Kidney Tpx by donor type

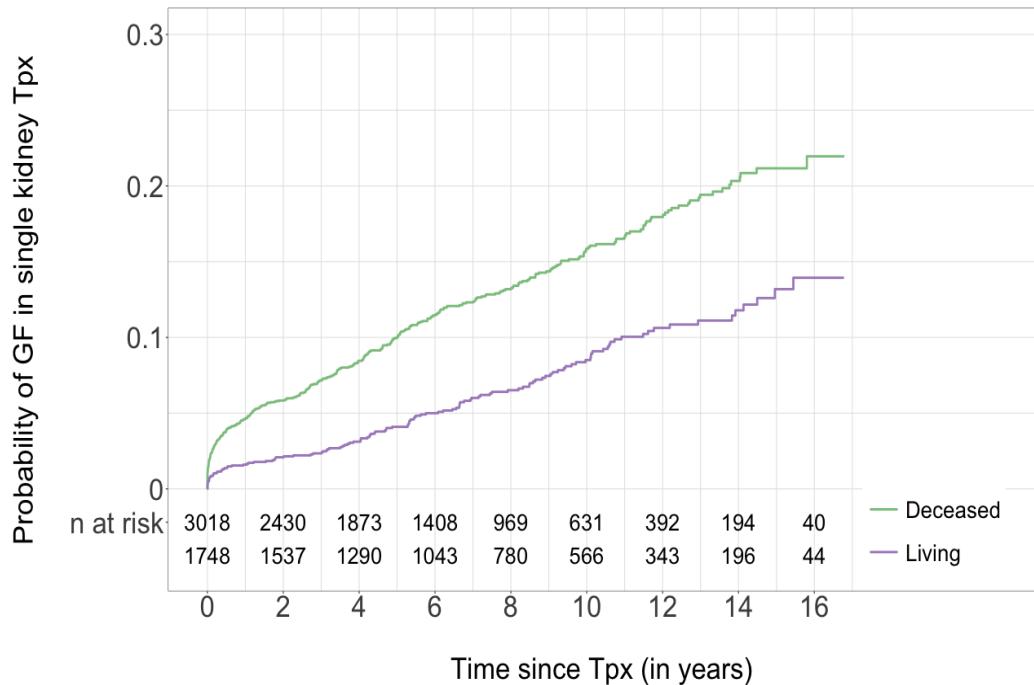


Figure 29: Cumulative incidence of graft failure for kidneys in single Tpx stratified by ABO compatibility

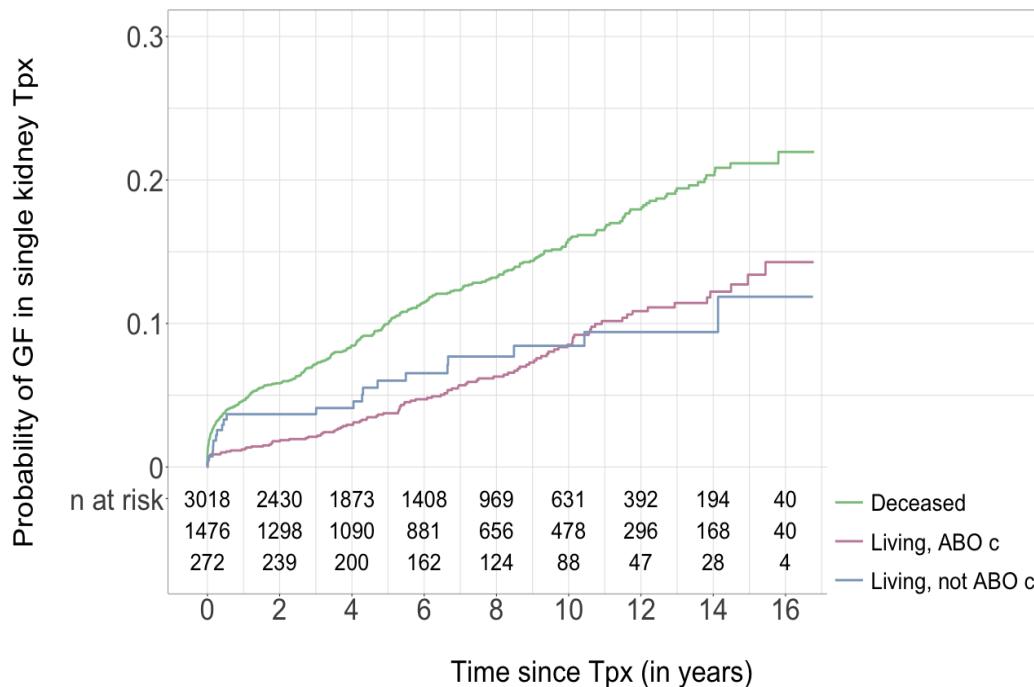
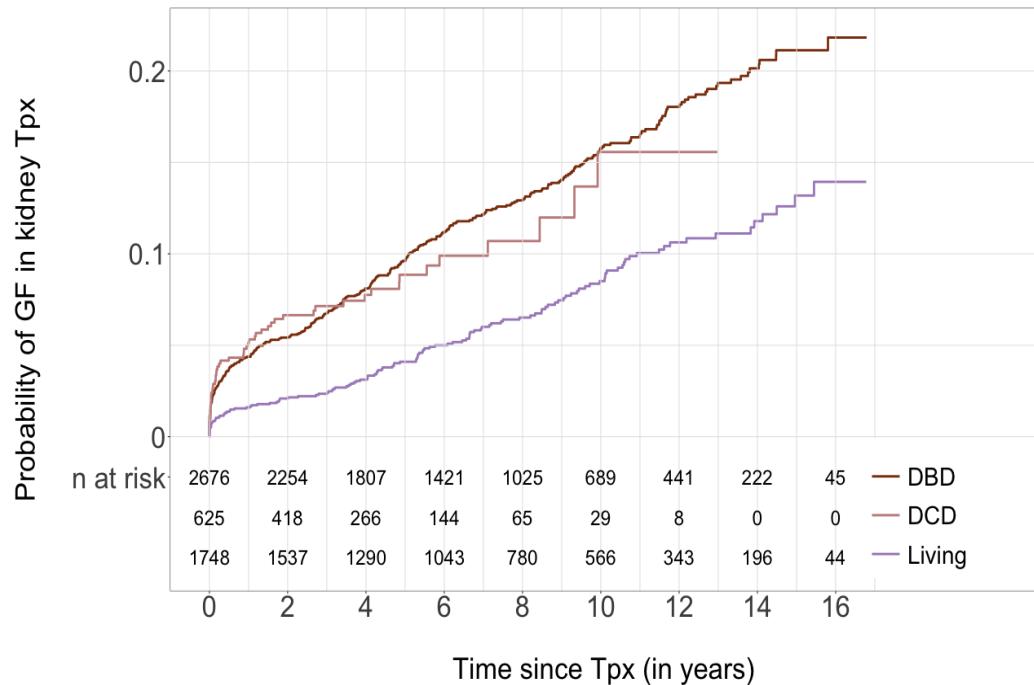


Figure 30: Cumulative incidence of graft failure for Kidney Tpx by donor type



7 Cancer

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

7.1 Cancer other than skin

Table 18: Overview of patients with incident cancer

	N	%
Total number of patients	8005	
Patients with incident cancer (other than skin)	953	11.9
- single record (% of line 2)	680	71.4
- multiple records (% of line 2)	273	28.6

Table 19: Patients with incident cancer

	Patients	Episodes	Median time (in yrs)*
Total	953	1421	4.04
Kidney	484	688	4.59
Liver	304	511	3.41
Lung	88	117	3.50
Heart	43	63	6.16
Islets	6	6	5.13
Pancreas	2	3	7.79
Kidney - Pancreas	10	11	4.37
Kidney - Liver	9	13	5.58
Kidney - Islets	2	2	7.18
Kidney - Heart	1	1	3.94
Kidney - Lung	2	2	2.73
Pancreas - Small bowel	2	4	0.31

* Median time (in years) from first STCS transplantation to diagnosis of cancer
Remark: Patients are listed regarding the first STCS transplantation.

Table 20: Overview of incident cancer occurrence

	N	%
Total	1421	100.0%
Breast cancer	52	3.7%
Cancer of unknown primary origin	10	0.7%
Cervix - Uterus - Adnex	14	1.0%
Cholangiocarcinoma	4	0.3%
Colorectal cancer	37	2.6%
CTU	13	0.9%
Esophageal cancer	1	0.1%
Gastric cancer	8	0.6%
HCC	15	1.1%
Head and neck cancer	10	0.7%
Kaposi	13	0.9%
Kidney cancer	67	4.7%
Leukemia	18	1.3%
Liver cancer	137	9.6%
Liver metastasis from CRC	1	0.1%
Lung cancer	167	11.8%
Myeloid neoplasm	19	1.3%
Myeloma	10	0.7%
Neuroendocrine TU	22	1.5%
Other neoplasia	383	27.0%
Pancreas cancer	9	0.6%
Prostate cancer	118	8.3%
PTLD	168	11.8%
Sarkoma	13	0.9%
Testicular cancer	8	0.6%
Thyroid cancer	21	1.5%
Urothelial/Bladder	83	5.8%

7.2 Skin cancer

Table 21: Overview of patients with incident skin cancer

	N	%
Total number of patients	8005	
Patients with incident skin cancer	1270	15.9
- single record (% of line 2)	611	48.1
- multiple records (% of line 2)	659	51.9

Table 22: Patients with incident skin cancer

	Patients	Episodes	Median time (in yrs)*
Total	1270	3776	5.19
Heart	83	230	6.58
Islets	10	26	5.86
Kidney	831	2592	5.04
Kidney - Heart	5	14	3.53
Kidney - Islets	8	20	4.52
Kidney - Islets - Liver	1	1	6.37
Kidney - Liver	8	44	8.46
Kidney - Lung	1	1	1.39
Kidney - Pancreas	20	58	7.42
Liver	181	376	4.12
Liver - Lung	1	1	7.18
Lung	116	387	5.30
Pancreas	5	26	4.53

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

Remark: Patients are listed regarding the first STCS transplantation.

Table 23: Overview of incident skin cancer occurrence

	N	%
Total	3776	100.0%
Basalioma	1089	28.8%
Melanoma	126	3.3%
Other skin cancer	700	18.5%
Spinalioma	1861	49.3%

8 Specific Populations

8.1 Pediatric patients

Table 24: Number of pediatric patients (under 18) by first Tpx type

	Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%
Total	369	121	32.8	8	2.2	42	11.4	55	14.9	139	37.7	4	1.1
Kidney	164	77	47	8	4.9	24	14.6	42	25.6	9	5.5	4	2.4
Liver	128	4	3.1	-	-	-	-	1	0.8	123	96.1	-	-
Lung	18	15	83.3	-	-	2	11.1	-	-	1	5.6	-	-
Heart	53	25	47.2	-	-	16	30.2	12	22.6	-	-	-	-
Kidney - Liver	5	-	-	-	-	-	-	-	-	5	100	-	-
Islets - Liver - Lung	1	-	-	-	-	-	-	-	-	1	100	-	-

Table 25: Number of Tpx in pediatric patients by transplantation type and centre

	Total	USZ	%	USB	%	CHUV	%	BE	%	HUG	%	SG	%
Total	405	130	32.1	11	2.7	49	12.1	60	14.8	151	37.3	4	1
Kidney	179	81	45.3	11	6.1	27	15.1	46	25.7	10	5.6	4	2.2
Liver	137	5	3.6	-	-	-	-	1	0.7	131	95.6	-	-
Lung	24	18	75	-	-	5	20.8	-	-	1	4.2	-	-
Heart	56	26	46.4	-	-	17	30.4	13	23.2	-	-	-	-
Kidney - Liver	6	-	-	-	-	-	-	-	-	6	100	-	-
Islets - Liver - Lung	1	-	-	-	-	-	-	-	-	1	100	-	-

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

A Overall mortality by transplantation type

Table 26: Overall mortality by Tpx type

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Kidney	Baseline	0.0	-	4598	0
	1 month	0.3	(0.2, 0.5)	4580	16
	6 months	1.1	(0.8, 1.5)	4539	53
	1 year	2.2	(1.8, 2.6)	4398	100
	2 year(s)	3.8	(3.2, 4.3)	3985	169
	4 year(s)	7.0	(6.2, 7.7)	3244	289
	6 year(s)	11.3	(10.3, 12.3)	2580	428
	8 year(s)	15.6	(14.4, 16.9)	1884	540
	10 year(s)	20.6	(19.1, 22.2)	1331	639
	12 year(s)	25.4	(23.6, 27.2)	861	706
	14 year(s)	31.0	(28.7, 33.1)	476	759
	16 year(s)	34.1	(31.5, 36.7)	106	776
	Overall	34.1	(31.5, 36.7)	-	776
Liver	Baseline	0.0	-	1755	0
	1 month	3.3	(2.5, 4.1)	1696	58
	6 months	7.0	(5.8, 8.2)	1629	123
	1 year	9.2	(7.9, 10.6)	1565	162
	2 year(s)	12.4	(10.9, 14)	1390	215
	4 year(s)	17.1	(15.2, 18.9)	1098	282
	6 year(s)	22.8	(20.6, 24.9)	817	351
	8 year(s)	27.4	(24.9, 29.8)	583	392
	10 year(s)	31.3	(28.6, 34)	406	420
	12 year(s)	34.7	(31.6, 37.6)	271	437
	14 year(s)	41.0	(37, 44.7)	135	456
	16 year(s)	46.7	(41.2, 51.6)	39	465
	Overall	48.4	(42, 54.2)	-	466
Lung	Baseline	0.0	-	719	0
	1 month	2.8	(1.6, 4)	699	20
	6 months	6.7	(4.8, 8.5)	671	48
	1 year	10.2	(7.9, 12.4)	632	73
	2 year(s)	16.1	(13.3, 18.8)	532	113
	4 year(s)	28.4	(24.8, 31.8)	393	185
	6 year(s)	35.9	(31.9, 39.7)	290	223
	8 year(s)	42.0	(37.6, 46)	214	248
	10 year(s)	50.6	(45.7, 55.1)	124	275
	12 year(s)	57.1	(51.5, 62.1)	65	288
	14 year(s)	62.7	(55.8, 68.5)	25	294
	16 year(s)	65.8	(56.5, 73.1)	4	295
	Overall	65.8	(56.5, 73.1)	-	295
Heart	Baseline	0.0	-	591	0
	1 month	8.5	(6.2, 10.7)	541	50
	6 months	10.7	(8.1, 13.1)	527	63
	1 year	12.7	(10, 15.3)	508	75
	2 year(s)	14.9	(11.9, 17.7)	442	87
	4 year(s)	18.5	(15.2, 21.6)	363	104
	6 year(s)	21.2	(17.6, 24.7)	286	115
	8 year(s)	23.1	(19.3, 26.8)	209	121
	10 year(s)	26.5	(22.1, 30.7)	146	129
	12 year(s)	32.7	(27.1, 37.8)	92	139
	14 year(s)	36.3	(29.8, 42.2)	37	143

Tpx		Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-		16 year(s)	41.3	(31.6, 49.7)	4	145
-		Overall	41.3	(31.6, 49.7)	-	145
Kidney - Pancreas		Baseline	0.0	-	161	0
-		1 month	0.0	-	161	0
-		6 months	0.6	(0, 1.8)	160	1
-		1 year	0.6	(0, 1.8)	158	1
-		2 year(s)	1.3	(0, 3)	148	2
-		4 year(s)	4.8	(1.3, 8.2)	121	7
-		6 year(s)	7.4	(2.8, 11.8)	96	10
-		8 year(s)	10.5	(4.8, 15.9)	81	13
-		10 year(s)	14.0	(7.2, 20.4)	66	16
-		12 year(s)	18.4	(10.1, 25.9)	45	19
-		14 year(s)	27.3	(15.5, 37.4)	23	23
-		16 year(s)	30.6	(17.3, 41.8)	4	24
-		Overall	30.6	(17.3, 41.8)	-	24

B Overall mortality in patients with common Tpx scenarios by centre

Table 27: Overall mortality by frequent Tpx type and centre

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Kidney - USZ	Baseline	0.0	-	1260	0
	1 month	0.3	(0, 0.6)	1255	4
	6 months	1.6	(0.9, 2.3)	1237	20
	1 year	2.8	(1.9, 3.7)	1201	35
	2 year(s)	4.4	(3.2, 5.5)	1087	54
	4 year(s)	7.7	(6.2, 9.3)	900	89
	6 year(s)	11.5	(9.6, 13.5)	715	123
	8 year(s)	16.4	(13.9, 18.8)	518	158
	10 year(s)	20.6	(17.7, 23.4)	375	181
	12 year(s)	22.9	(19.7, 26)	255	190
	14 year(s)	26.7	(22.8, 30.5)	133	200
	16 year(s)	29.7	(24.9, 34.2)	31	204
	Overall	29.7	(24.9, 34.2)	-	204
Kidney - USB	Baseline	0.0	-	1122	0
	1 month	0.4	(0, 0.7)	1118	4
	6 months	1.2	(0.5, 1.8)	1109	13
	1 year	1.8	(1, 2.6)	1083	20
	2 year(s)	3.1	(2.1, 4.1)	999	34
	4 year(s)	6.0	(4.5, 7.4)	819	61
	6 year(s)	9.8	(7.9, 11.8)	657	92
	8 year(s)	13.3	(10.9, 15.6)	487	114
	10 year(s)	16.6	(13.8, 19.3)	340	131
	12 year(s)	22.3	(18.6, 25.7)	208	150
	14 year(s)	28.2	(23.6, 32.5)	120	164
	16 year(s)	28.9	(24.1, 33.3)	30	165
	Overall	28.9	(24.1, 33.3)	-	165
Kidney - CHUV	Baseline	0.0	-	754	0
	1 month	0.3	(0, 0.6)	751	2
	6 months	0.7	(0.1, 1.2)	748	5
	1 year	1.5	(0.6, 2.3)	729	11
	2 year(s)	2.9	(1.6, 4.1)	660	21
	4 year(s)	5.8	(4, 7.5)	539	39
	6 year(s)	9.7	(7.3, 12.1)	436	60
	8 year(s)	14.8	(11.7, 17.8)	323	82
	10 year(s)	19.9	(16.1, 23.6)	227	99
	12 year(s)	24.9	(20.3, 29.2)	144	111
	14 year(s)	32.2	(26.3, 37.7)	78	123
	16 year(s)	37.1	(29.6, 43.8)	15	127
	Overall	37.1	(29.6, 43.8)	-	127
Kidney - BE	Baseline	0.0	-	685	0
	1 month	0.4	(0, 0.9)	682	3
	6 months	1.3	(0.5, 2.2)	674	9
	1 year	2.6	(1.4, 3.8)	647	18
	2 year(s)	5.5	(3.8, 7.3)	561	36
	4 year(s)	8.1	(5.9, 10.3)	458	50
	6 year(s)	13.8	(10.8, 16.7)	335	75
	8 year(s)	17.7	(14.1, 21.1)	233	88
	10 year(s)	24.1	(19.6, 28.4)	171	105

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	12 year(s)	33.0	(27.1, 38.4)	108	121
	14 year(s)	38.2	(31.5, 44.3)	66	128
	16 year(s)	43.7	(35.7, 50.7)	12	133
	Overall	43.7	(35.7, 50.7)	-	133
Kidney - HUG	Baseline	0.0	-	469	0
	1 month	0.4	(0, 1)	467	2
	6 months	1.1	(0.1, 2)	464	5
	1 year	2.6	(1.1, 4)	443	12
	2 year(s)	3.9	(2.1, 5.7)	405	18
	4 year(s)	8.1	(5.4, 10.7)	304	34
	6 year(s)	13.9	(10.2, 17.4)	252	52
	8 year(s)	18.1	(13.8, 22.2)	185	63
	10 year(s)	25.5	(20, 30.7)	123	77
	12 year(s)	30.4	(24, 36.2)	80	84
	14 year(s)	36.2	(28.3, 43.3)	44	89
	16 year(s)	41.9	(31.8, 50.4)	10	92
	Overall	41.9	(31.8, 50.4)	-	92
Kidney - SG	Baseline	0.0	-	308	0
	1 month	0.3	(0, 1)	307	1
	6 months	0.3	(0, 1)	307	1
	1 year	1.3	(0, 2.6)	295	4
	2 year(s)	2.0	(0.4, 3.6)	273	6
	4 year(s)	5.9	(3.1, 8.7)	224	16
	6 year(s)	10.4	(6.5, 14.1)	185	26
	8 year(s)	15.1	(10.3, 19.7)	138	35
	10 year(s)	23.0	(16.6, 28.9)	95	46
	12 year(s)	26.8	(19.5, 33.3)	66	50
	14 year(s)	34.1	(24.7, 42.3)	35	55
	16 year(s)	34.1	(24.7, 42.3)	8	55
	Overall	34.1	(24.7, 42.3)	-	55
Liver - USZ	Baseline	0.0	-	707	0
	1 month	4.8	(3.2, 6.4)	673	34
	6 months	10.3	(8.1, 12.5)	634	73
	1 year	13.6	(11, 16.1)	599	96
	2 year(s)	18.0	(15.1, 20.8)	517	125
	4 year(s)	24.0	(20.7, 27.2)	404	160
	6 year(s)	30.1	(26.4, 33.7)	303	190
	8 year(s)	35.1	(30.9, 39)	207	208
	10 year(s)	40.8	(36, 45.2)	128	224
	12 year(s)	43.8	(38.6, 48.5)	85	230
	14 year(s)	51.9	(44.8, 58)	37	239
	16 year(s)	60.0	(48.9, 68.7)	10	243
	Overall	60.0	(48.9, 68.7)	-	243
Liver - BE	Baseline	0.0	-	404	0
	1 month	3.5	(1.7, 5.2)	389	14
	6 months	5.7	(3.4, 7.9)	379	23
	1 year	7.9	(5.3, 10.5)	365	32
	2 year(s)	10.0	(7, 12.9)	326	40
	4 year(s)	14.9	(11.2, 18.4)	253	56
	6 year(s)	22.7	(18, 27.2)	180	77
	8 year(s)	29.4	(23.7, 34.7)	126	90
	10 year(s)	33.2	(27, 38.9)	90	96
	12 year(s)	36.9	(29.9, 43.2)	60	100
	14 year(s)	43.3	(34.1, 51.3)	27	104

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	16 year(s)	45.5	(35.4, 54)	9	105
-	Overall	52.3	(34.8, 65.1)	-	106
Liver - HUG	Baseline	0.0	-	644	0
-	1 month	1.6	(0.6, 2.5)	634	10
-	6 months	4.2	(2.6, 5.7)	616	27
-	1 year	5.3	(3.5, 7)	601	34
-	2 year(s)	7.9	(5.7, 9.9)	547	50
-	4 year(s)	10.8	(8.3, 13.3)	441	66
-	6 year(s)	14.9	(11.9, 17.9)	334	84
-	8 year(s)	17.9	(14.4, 21.3)	250	94
-	10 year(s)	20.1	(16.3, 23.8)	188	100
-	12 year(s)	23.8	(19.2, 28.1)	126	107
-	14 year(s)	28.5	(22.7, 33.9)	71	113
-	16 year(s)	34.0	(26.1, 41)	20	117
-	Overall	34.0	(26.1, 41)	-	117
Lung - USZ	Baseline	0.0	-	407	0
-	1 month	3.2	(1.5, 4.9)	394	13
-	6 months	8.3	(5.6, 11)	373	34
-	1 year	12.3	(9.1, 15.4)	351	50
-	2 year(s)	19.9	(15.8, 23.7)	287	79
-	4 year(s)	37.4	(32.1, 42.2)	197	137
-	6 year(s)	45.8	(40.1, 50.9)	141	161
-	8 year(s)	52.4	(46.4, 57.7)	106	177
-	10 year(s)	59.7	(53.3, 65.2)	62	191
-	12 year(s)	61.4	(54.7, 67)	35	193
-	14 year(s)	66.8	(58.6, 73.4)	14	197
-	16 year(s)	71.0	(59.1, 79.4)	4	198
-	Overall	71.0	(59.1, 79.4)	-	198
Lung - CHUV	Baseline	0.0	-	310	0
-	1 month	1.9	(0.4, 3.5)	304	6
-	6 months	4.2	(1.9, 6.4)	297	13
-	1 year	7.1	(4.2, 9.9)	280	22
-	2 year(s)	10.9	(7.3, 14.4)	244	33
-	4 year(s)	16.5	(12, 20.7)	195	47
-	6 year(s)	23.0	(17.6, 28)	148	61
-	8 year(s)	28.1	(22, 33.7)	107	70
-	10 year(s)	38.4	(30.7, 45.2)	61	83
-	12 year(s)	52.3	(42.1, 60.6)	29	94
-	14 year(s)	58.0	(45, 67.9)	10	96
-	16 year(s)	58.0	(45, 67.9)	-	96
-	Overall	58.0	(45, 67.9)	-	96
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	50.0	(0, 87.5)	1	1
-	2 year(s)	50.0	(0, 87.5)	1	1
-	4 year(s)	50.0	(0, 87.5)	1	1
-	6 year(s)	50.0	(0, 87.5)	1	1
-	8 year(s)	50.0	(0, 87.5)	1	1
-	10 year(s)	50.0	(0, 87.5)	1	1
-	12 year(s)	50.0	(0, 87.5)	1	1
-	14 year(s)	50.0	(0, 87.5)	1	1
-	16 year(s)	50.0	(0, 87.5)	-	1
-	Overall	50.0	(0, 87.5)	-	1

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Heart - USZ	Baseline	0.0	-	199	0
-	1 month	6.5	(3, 9.9)	186	13
-	6 months	11.6	(7, 15.9)	175	23
-	1 year	14.1	(9.1, 18.8)	167	28
-	2 year(s)	17.4	(11.9, 22.5)	143	34
-	4 year(s)	20.6	(14.5, 26.1)	115	39
-	6 year(s)	22.8	(16.4, 28.7)	97	42
-	8 year(s)	26.6	(19.3, 33.1)	68	46
-	10 year(s)	30.4	(22.2, 37.8)	48	49
-	12 year(s)	33.8	(24.5, 41.9)	32	51
-	14 year(s)	39.4	(27.2, 49.6)	12	53
-	16 year(s)	39.4	(27.2, 49.6)	-	53
-	Overall	39.4	(27.2, 49.6)	-	53
Heart - CHUV	Baseline	0.0	-	211	0
-	1 month	7.6	(3.9, 11.1)	195	16
-	6 months	8.5	(4.7, 12.2)	193	18
-	1 year	11.9	(7.4, 16.1)	185	25
-	2 year(s)	13.9	(9.1, 18.5)	161	29
-	4 year(s)	16.3	(11, 21.2)	134	33
-	6 year(s)	19.9	(13.9, 25.6)	94	38
-	8 year(s)	21.9	(15.3, 27.9)	66	40
-	10 year(s)	24.4	(17.1, 31.1)	47	42
-	12 year(s)	30.6	(20.6, 39.3)	28	45
-	14 year(s)	33.5	(22.1, 43.2)	10	46
-	16 year(s)	40.2	(22.4, 53.9)	2	47
-	Overall	40.2	(22.4, 53.9)	-	47
Heart - BE	Baseline	0.0	-	181	0
-	1 month	11.6	(6.8, 16.1)	160	21
-	6 months	12.2	(7.3, 16.8)	159	22
-	1 year	12.2	(7.3, 16.8)	156	22
-	2 year(s)	13.3	(8.2, 18.2)	138	24
-	4 year(s)	18.7	(12.6, 24.4)	114	32
-	6 year(s)	21.1	(14.5, 27.1)	95	35
-	8 year(s)	21.1	(14.5, 27.1)	75	35
-	10 year(s)	24.8	(17.1, 31.7)	51	38
-	12 year(s)	33.7	(23.1, 42.8)	32	43
-	14 year(s)	36.2	(24.7, 46)	15	44
-	16 year(s)	41.6	(25.8, 54)	2	45
-	Overall	41.6	(25.8, 54)	-	45
Kidney - Pancreas - USZ	Baseline	0.0	-	111	0
-	1 month	0.0	-	111	0
-	6 months	0.0	-	111	0
-	1 year	0.0	-	109	0
-	2 year(s)	1.0	(0, 2.8)	101	1
-	4 year(s)	3.9	(0.1, 7.7)	86	4
-	6 year(s)	5.1	(0.6, 9.3)	70	5
-	8 year(s)	8.0	(2, 13.6)	59	7
-	10 year(s)	12.8	(4.8, 20.1)	51	10
-	12 year(s)	18.4	(8.4, 27.3)	34	13
-	14 year(s)	24.0	(11.5, 34.7)	17	15
-	16 year(s)	28.5	(13.2, 41)	3	16
-	Overall	28.5	(13.2, 41)	-	16
Kidney - Pancreas - HUG	Baseline	0.0	-	50	0
-	1 month	0.0	-	50	0

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
-	6 months	2.0	(0, 5.8)	49	1
-	1 year	2.0	(0, 5.8)	49	1
-	2 year(s)	2.0	(0, 5.8)	47	1
-	4 year(s)	6.7	(0, 13.8)	35	3
-	6 year(s)	12.8	(1.4, 22.8)	26	5
-	8 year(s)	16.4	(3.1, 27.9)	22	6
-	10 year(s)	16.4	(3.1, 27.9)	15	6
-	12 year(s)	16.4	(3.1, 27.9)	11	6
-	14 year(s)	35.5	(4.3, 56.5)	6	8
-	16 year(s)	35.5	(4.3, 56.5)	1	8
-	Overall	35.5	(4.3, 56.5)	-	8

C Overall mortality in patients with rare Tpx scenarios

Table 28: Overall mortality by rare Tpx scenarios

Tpx	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Islets	Baseline	0.00	-	41	0
	Overall	51.12	(29.3, 66.2)	-	17
Pancreas	Baseline	0.00	-	15	0
	Overall	40.00	(0.5, 63.8)	-	4
Small bowel	Baseline	0.00	-	2	0
	Overall	50.00	(0, 87.5)	-	1
Kidney - Liver	Baseline	0.00	-	65	0
	Overall	51.83	(23, 69.9)	-	19
Kidney - Islets	Baseline	0.00	-	27	0
	Overall	79.52	(0, 95.8)	-	8
Kidney - Heart	Baseline	0.00	-	16	0
	Overall	18.75	(0, 35.8)	-	3
Kidney - Lung	Baseline	0.00	-	2	0
	Overall	0.00	-	-	0
Liver - Lung	Baseline	0.00	-	4	0
	Overall	25.00	(0, 57.4)	-	1
Liver - Pancreas	Baseline	0.00	-	1	0
	Overall	0.00	-	-	0
Heart - Lung	Baseline	0.00	-	1	0
	Overall	100.00	-	-	1
Islets - Liver	Baseline	0.00	-	1	0
	Overall	0.00	-	-	0
Pancreas - Small bowel	Baseline	0.00	-	3	0
	Overall	66.67	(0, 93.3)	-	2
Kidney - Islets - Liver	Baseline	0.00	-	1	0
	Overall	0.00	-	-	0
Liver - Pancreas - Small bowel	Baseline	0.00	-	1	0
	Overall	100.00	-	-	1
Islets - Liver - Lung	Baseline	0.00	-	1	0
	Overall	0.00	-	-	0

Table 29: Overall mortality by rare Tpx scenarios and centre

Tpx - centre	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Islets - USZ	Baseline	0.0	-	22	0
-	Overall	71.7	(40.8, 86.5)	-	14
Islets - HUG	Baseline	0.0	-	19	0
-	Overall	24.0	(0, 45.2)	-	3
Pancreas - USZ	Baseline	0.0	-	5	0
-	Overall	20.0	(0, 48.4)	-	1
Pancreas - HUG	Baseline	0.0	-	10	0
-	Overall	60.0	(0, 86.3)	-	3
Small bowel - HUG	Baseline	0.0	-	2	0
-	Overall	50.0	(0, 87.5)	-	1
Kidney - Liver - USZ	Baseline	0.0	-	20	0
-	Overall	15.0	(0, 29.3)	-	3
Kidney - Liver - BE	Baseline	0.0	-	17	0
-	Overall	57.6	(0, 83.3)	-	5
Kidney - Liver - HUG	Baseline	0.0	-	28	0
-	Overall	76.8	(0, 94.8)	-	11
Kidney - Islets - USZ	Baseline	0.0	-	14	0
-	Overall	100.0	-	-	5
Kidney - Islets - HUG	Baseline	0.0	-	13	0
-	Overall	42.3	(0, 71)	-	3
Kidney - Heart - USZ	Baseline	0.0	-	3	0
-	Overall	33.3	(0, 70)	-	1
Kidney - Heart - CHUV	Baseline	0.0	-	11	0
-	Overall	9.1	(0, 24.6)	-	1
Kidney - Heart - BE	Baseline	0.0	-	2	0
-	Overall	50.0	(0, 87.5)	-	1
Kidney - Lung - CHUV	Baseline	0.0	-	2	0
-	Overall	0.0	-	-	0
Liver - Lung - HUG	Baseline	0.0	-	4	0
-	Overall	25.0	(0, 57.4)	-	1
Liver - Pancreas - HUG	Baseline	0.0	-	1	0
-	Overall	0.0	-	-	0
Heart - Lung - USZ	Baseline	0.0	-	1	0
-	Overall	100.0	-	-	1
Islets - Liver - USZ	Baseline	0.0	-	1	0
-	Overall	0.0	-	-	0
Pancreas - Small bowel - USZ	Baseline	0.0	-	1	0
-	Overall	100.0	-	-	1
Pancreas - Small bowel - HUG	Baseline	0.0	-	2	0
-	Overall	50.0	(0, 87.5)	-	1
Kidney - Islets - Liver - HUG	Baseline	0.0	-	1	0
-	Overall	0.0	-	-	0
Liver - Pancreas - Small bowel - USZ	Baseline	0.0	-	1	0
-	Overall	100.0	-	-	1
Islets - Liver - Lung - HUG	Baseline	0.0	-	1	0
-	Overall	0.0	-	-	0

D Overall mortality in first Kidney transplantation

Table 30: Overall mortality in (single) kidney recipients by donor type

Donor type	Time	Mortality (%)	95% CI	No at risk	Cum. deaths
Deceased	Baseline	0.0	-	2884	0
	1 month	0.5	(0.3, 0.8)	2868	15
	6 months	1.5	(1, 1.9)	2840	42
	1 year	2.8	(2.2, 3.4)	2741	81
	2 year(s)	4.7	(3.9, 5.5)	2451	132
	4 year(s)	9.0	(7.9, 10.1)	1939	232
	6 year(s)	14.4	(13, 15.9)	1503	338
	8 year(s)	19.6	(17.9, 21.4)	1064	418
	10 year(s)	25.5	(23.4, 27.6)	721	486
	12 year(s)	30.2	(27.7, 32.6)	479	525
	14 year(s)	36.8	(33.7, 39.8)	254	562
	16 year(s)	40.2	(36.6, 43.7)	54	573
	Overall	40.2	(36.6, 43.7)	-	573
Living	Baseline	0.0	-	1714	0
	1 month	0.1	(0, 0.2)	1712	1
	6 months	0.6	(0.3, 1)	1699	11
	1 year	1.1	(0.6, 1.6)	1657	19
	2 year(s)	2.2	(1.5, 2.9)	1534	37
	4 year(s)	3.6	(2.7, 4.5)	1305	57
	6 year(s)	6.2	(5, 7.5)	1077	90
	8 year(s)	9.3	(7.7, 10.9)	820	122
	10 year(s)	13.2	(11.1, 15.2)	610	153
	12 year(s)	18.1	(15.4, 20.6)	382	181
	14 year(s)	22.1	(18.9, 25.2)	222	197
	16 year(s)	25.0	(21.1, 28.7)	52	203
	Overall	25.0	(21.1, 28.7)	-	203

E Graft failure by organ, centre and donortype

Table 31: Graft failure by organ

Organ	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Kidney	Baseline	-	-	5049		0
	1 month	1.8	(1.4,2.2)	4945		13
	6 months	3	(2.5,3.4)	4851		44
	1 year	3.5	(3.4)	4683		88
	2 year(s)	4.4	(3.9,5)	4209		149
	4 year(s)	6.4	(5.7,7.1)	3363		251
	6 year(s)	8.9	(8.1,9.8)	2608		370
	8 year(s)	10.5	(9.6,11.5)	1870		475
	10 year(s)	13.1	(12,14.3)	1284		563
	12 year(s)	15.3	(13.9,16.6)	792		625
	14 year(s)	17	(15.5,18.6)	418		677
	16 year(s)	18.8	(16.9,20.9)	89		695
	Overall	18.8	(16.9,20.9)	0		695
Liver	Baseline	-	-	2011		0
	1 month	5.5	(4.6,6.6)	1868		31
	6 months	8.1	(7.9,4)	1762		83
	1 year	9.6	(8.3,10.9)	1680		110
	2 year(s)	10.8	(9.5,12.2)	1480		152
	4 year(s)	12.5	(11.1,14)	1154		209
	6 year(s)	13.5	(12,15.1)	853		273
	8 year(s)	14.3	(12.7,16)	601		314
	10 year(s)	15.2	(13.5,17)	415		338
	12 year(s)	16.1	(14.2,18)	270		354
	14 year(s)	16.4	(14.5,18.4)	134		374
	16 year(s)	18.5	(15.4,21.7)	39		383
	Overall	18.5	(15.4,21.7)	0		384
Lung	Baseline	-	-	756		0
	1 month	1.1	(0.5,2)	732		16
	6 months	2.2	(1.4,3.5)	702		37
	1 year	4.4	(3.1,6)	656		51
	2 year(s)	7.7	(5.9,9.8)	547		72
	4 year(s)	14.8	(12.2,17.6)	401		109
	6 year(s)	18.5	(15.6,21.6)	292		132
	8 year(s)	21.4	(18.2,24.8)	215		145
	10 year(s)	24.1	(20.6,27.8)	125		164
	12 year(s)	25.7	(21.8,29.7)	64		175
	14 year(s)	27.9	(23.1,32.8)	24		179
	16 year(s)	27.9	(23.1,32.8)	4		180
	Overall	27.9	(23.1,32.8)	0		180
Heart	Baseline	-	-	615		0
	1 month	5.7	(4,7.7)	561		19
	6 months	6.5	(4.7,8.6)	546		28
	1 year	6.8	(5,9)	526		39
	2 year(s)	7.5	(5.6,9.8)	457		49

Organ	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	4 year(s)	8.1	(6.1,10.5)	374		64
-	6 year(s)	9.1	(6.9,11.7)	295		71
-	8 year(s)	10.4	(7.9,13.2)	213		74
-	10 year(s)	11.2	(8.6,14.3)	147		81
-	12 year(s)	11.2	(8.6,14.3)	94		91
-	14 year(s)	11.2	(8.6,14.3)	38		95
-	16 year(s)	11.2	(8.6,14.3)	5		97
-	Overall	11.2	(8.6,14.3)	0		97
Pancreas	Baseline	-	-	198		0
-	1 month	8.6	(5.2,13)	180		1
-	6 months	9.6	(6,14.2)	178		1
-	1 year	10.6	(6.8,15.4)	173		1
-	2 year(s)	13.3	(9,18.4)	160		2
-	4 year(s)	14.4	(9.9,19.8)	126		7
-	6 year(s)	14.4	(9.9,19.8)	100		9
-	8 year(s)	17.1	(11.9,23.1)	82		10
-	10 year(s)	18.1	(12.6,24.4)	64		13
-	12 year(s)	23.6	(16.4,31.5)	39		17
-	14 year(s)	23.6	(16.4,31.5)	20		20
-	16 year(s)	23.6	(16.4,31.5)	4		20
-	Overall	23.6	(16.4,31.5)	0		20

Table 32: Graft failure by organ and centre

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Kidney-USZ	Baseline	0.0	-	1459	0	0
-	1 month	2.3	(1.6,3.1)	1422	33	3
-	6 months	3.8	(2.9,4.8)	1390	55	11
-	1 year	4.3	(3.3,5.4)	1346	62	23
-	2 year(s)	5.1	(4.6,6.3)	1215	73	42
-	4 year(s)	6.2	(5.7,6.6)	997	87	76
-	6 year(s)	8.5	(7.1,10.1)	784	111	106
-	8 year(s)	10.0	(8.4,11.8)	565	124	138
-	10 year(s)	12.0	(10.1,14.1)	402	136	162
-	12 year(s)	14.2	(12,16.7)	260	147	174
-	14 year(s)	15.5	(13,18.3)	133	151	187
-	16 year(s)	17.8	(14.5,21.4)	27	155	192
-	Overall	17.8	(14.5,21.4)	0	155	192
Kidney-USB	Baseline	0.0	-	1146	0	0
-	1 month	0.7	(0.3,1.3)	1136	8	2
-	6 months	1.5	(0.9,2.3)	1118	17	11
-	1 year	2.0	(1.3,3)	1085	23	19
-	2 year(s)	2.8	(2,3.9)	992	32	30
-	4 year(s)	4.7	(3.6,6.2)	795	50	52
-	6 year(s)	7.2	(5.7,9)	620	70	75
-	8 year(s)	8.9	(7.1,10.9)	452	81	95
-	10 year(s)	10.1	(8.1,12.4)	311	87	109
-	12 year(s)	10.5	(8.4,12.8)	184	88	128
-	14 year(s)	10.9	(8.7,13.3)	104	89	141
-	16 year(s)	10.9	(8.7,13.3)	27	89	142
-	Overall	10.9	(8.7,13.3)	0	89	142
Kidney-CHUV	Baseline	0.0	-	799	0	0
-	1 month	1.8	(1,2.9)	783	14	2
-	6 months	2.5	(1.6,3.8)	774	20	5
-	1 year	2.6	(1.7,3.9)	755	21	10
-	2 year(s)	2.9	(1.9,4.2)	683	23	19
-	4 year(s)	5.4	(4,7.3)	549	40	31
-	6 year(s)	8.3	(6.4,10.6)	428	56	50
-	8 year(s)	10.3	(8,12.9)	310	65	68
-	10 year(s)	13.5	(10.7,16.6)	208	76	83
-	12 year(s)	15.1	(11.9,18.6)	127	80	92
-	14 year(s)	18.7	(14.6,23.2)	64	86	102
-	16 year(s)	22.2	(16,29)	11	88	105
-	Overall	22.2	(16,29)	0	88	105
Kidney-BE	Baseline	0.0	-	745	0	0
-	1 month	2.4	(1.5,3.7)	724	18	3
-	6 months	4.4	(3.1,6.1)	701	33	9
-	1 year	5.8	(4.3,7.6)	665	43	19
-	2 year(s)	7.2	(5.5,9.2)	567	53	35
-	4 year(s)	10.4	(8.3,12.8)	447	72	44
-	6 year(s)	12.2	(9.8,14.9)	320	81	66
-	8 year(s)	13.9	(11.2,16.8)	215	87	77

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths	
-	10 year(s)	16.5	(13.3,19.9)	154	94	91	
	12 year(s)	21.4	(17.3,25.9)	88	104	104	
	14 year(s)	24.6	(19.6,29.8)	49	108	109	
	16 year(s)	25.7	(20.4,31.3)	9	109	115	
	Overall	25.7	(20.4,31.3)	0	109	115	
Kidney-HUG	Baseline	0.0	-	585	0	0	
	1 month	2.4	(1.4,3.9)	568	14	3	
	6 months	3.2	(2.4,9)	558	19	8	
	1 year	3.4	(2.2,5.1)	536	20	14	
	2 year(s)	4.5	(3.6,4)	484	26	18	
-	4 year(s)	5.8	(4.1,8)	357	32	37	
	6 year(s)	8.5	(6.2,11.2)	286	42	54	
	8 year(s)	10.0	(7.4,13.1)	204	47	69	
	10 year(s)	15.3	(11.6,19.5)	126	59	82	
	12 year(s)	18.2	(13.9,22.9)	79	64	87	
	14 year(s)	19.3	(14.6,24.6)	42	65	93	
	16 year(s)	19.3	(14.6,24.6)	10	65	96	
	Overall	19.3	(14.6,24.6)	0	65	96	
	Kidney-SG	Baseline	0.0	-	315	0	0
	1 month	1.0	(0.3,2.6)	312	3	0	
-	6 months	1.6	(0.6,3.5)	310	5	0	
	1 year	2.5	(1.2,4.7)	296	8	3	
	2 year(s)	4.2	(2.3,6.8)	268	13	5	
	4 year(s)	6.8	(4.3,10.1)	218	20	11	
	6 year(s)	11.6	(8,15.8)	170	31	19	
	8 year(s)	12.6	(8.9,17)	124	33	28	
	10 year(s)	16.6	(11.9,21.9)	83	39	36	
	12 year(s)	18.7	(13.4,24.7)	54	41	40	
	14 year(s)	20.5	(14.4,27.5)	26	42	45	
	16 year(s)	27.4	(16.4,39.6)	5	44	45	
	Overall	27.4	(16.4,39.6)	0	44	45	
Liver-USZ	Baseline	0.0	-	822	0	0	
	1 month	7.5	(5.9,9.5)	740	62	20	
	6 months	10.7	(8.7,12.9)	683	88	51	
	1 year	13.0	(10.8,15.4)	639	107	64	
	2 year(s)	14.6	(12.3,17.1)	547	119	88	
-	4 year(s)	16.3	(13.9,19)	425	131	116	
	6 year(s)	17.8	(15.1,20.6)	315	139	143	
	8 year(s)	18.7	(15.9,21.6)	212	143	160	
	10 year(s)	20.0	(17,23.1)	132	147	171	
	12 year(s)	20.4	(17.4,23.7)	83	148	177	
	14 year(s)	20.4	(17.4,23.7)	36	148	185	
	16 year(s)	23.4	(17.1,30.3)	10	149	188	
	Overall	23.4	(17.1,30.3)	0	149	188	
	Liver-BE	Baseline	0.0	-	474	0	0
	1 month	7.2	(5.1,9.7)	433	34	6	
-	6 months	9.7	(7.3,12.6)	413	46	13	
	1 year	10.4	(7.8,13.3)	395	49	23	

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	2 year(s)	11.3	(8.6,14.3)	348	53	30
	4 year(s)	13.1	(10.2,16.4)	266	60	44
	6 year(s)	13.1	(10.2,16.4)	187	60	66
	8 year(s)	14.5	(11.3,18.1)	127	63	79
	10 year(s)	15.1	(11.7,19)	91	64	86
	12 year(s)	15.9	(12.2,20)	60	65	90
	14 year(s)	15.9	(12.2,20)	28	65	94
	16 year(s)	20.9	(13.7,29.2)	9	67	96
	Overall	20.9	(13.7,29.2)	0	67	97
Liver-HUG	Baseline	0.0	-	715	0	0
	1 month	2.1	(1.2,3.4)	695	15	5
	6 months	4.1	(2.8,5.7)	666	29	19
	1 year	5.0	(3.6,6.8)	646	36	23
	2 year(s)	6.1	(4.5,8)	585	43	34
	4 year(s)	7.7	(5.9,9.9)	463	53	49
	6 year(s)	8.8	(6.7,11.1)	351	58	64
	8 year(s)	9.2	(7.1,11.7)	262	60	75
	10 year(s)	9.9	(7.7,12.5)	192	62	81
	12 year(s)	11.2	(8.6,14.2)	127	65	87
	14 year(s)	12.0	(9,15.4)	70	66	95
	16 year(s)	12.0	(9,15.4)	20	66	99
	Overall	12.0	(9,15.4)	0	66	99
Lung-USZ	Baseline	0.0	-	420	0	0
	1 month	1.2	(0.5,2.6)	404	5	11
	6 months	2.9	(1.6,4.8)	381	12	27
	1 year	5.3	(3.4,7.7)	356	22	35
	2 year(s)	8.8	(6.3,11.9)	289	36	52
	4 year(s)	19.1	(15.2,23.3)	199	71	77
	6 year(s)	22.4	(18.2,26.9)	140	81	94
	8 year(s)	25.2	(20.6,29.9)	104	88	104
	10 year(s)	28.7	(23.7,33.8)	60	95	112
	12 year(s)	28.7	(23.7,33.8)	33	95	114
	14 year(s)	30.4	(24.5,36.5)	13	96	116
	16 year(s)	30.4	(24.5,36.5)	4	96	117
	Overall	30.4	(24.5,36.5)	0	96	117
Lung-CHUV	Baseline	0.0	-	329	0	0
	1 month	0.9	(0.3,2.5)	322	3	4
	6 months	1.5	(0.6,3.3)	315	5	9
	1 year	3.4	(1.8,5.7)	294	11	15
	2 year(s)	6.3	(4,9.4)	252	20	19
	4 year(s)	9.2	(6.3,12.8)	197	28	31
	6 year(s)	13.5	(9.8,17.9)	147	38	37
	8 year(s)	16.7	(12.4,21.7)	107	44	40
	10 year(s)	18.2	(13.5,23.5)	62	46	51
	12 year(s)	22.0	(16,28.7)	29	49	60
	14 year(s)	22.0	(16,28.7)	10	49	62
	16 year(s)	-	-	0	49	62
	Overall	22.0	(16,28.7)	0	49	62

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
Lung-HUG	Baseline	0.0	-	7	0	0
-	1 month	0.0	-	6	0	1
-	6 months	0.0	-	6	0	1
-	1 year	0.0	-	6	0	1
-	2 year(s)	0.0	-	6	0	1
-	4 year(s)	14.3	(0.5,49.6)	5	1	1
-	6 year(s)	14.3	(0.5,49.6)	5	1	1
-	8 year(s)	14.3	(0.5,49.6)	4	1	1
-	10 year(s)	14.3	(0.5,49.6)	3	1	1
-	12 year(s)	14.3	(0.5,49.6)	2	1	1
-	14 year(s)	50.0	(0.3,92)	1	2	1
-	16 year(s)	-	-	0	2	1
-	Overall	50.0	(0.3,92)	0	2	1
Heart-USZ	Baseline	0.0	-	205	0	0
-	1 month	4.4	(2.2,7.8)	190	9	6
-	6 months	6.3	(3.5,10.3)	179	13	12
-	1 year	6.8	(3.9,10.9)	170	14	17
-	2 year(s)	7.9	(4.7,12.1)	145	16	21
-	4 year(s)	7.9	(4.7,12.1)	117	16	26
-	6 year(s)	7.9	(4.7,12.1)	99	16	29
-	8 year(s)	10.8	(6.5,16.2)	69	19	30
-	10 year(s)	13.2	(8.1,19.6)	49	21	32
-	12 year(s)	13.2	(8.1,19.6)	33	21	34
-	14 year(s)	13.2	(8.1,19.6)	13	21	36
-	16 year(s)	13.2	(8.1,19.6)	1	21	36
-	Overall	13.2	(8.1,19.6)	0	21	36
Heart-CHUV	Baseline	0.0	-	223	0	0
-	1 month	4.9	(2.6,8.3)	207	11	5
-	6 months	4.9	(2.6,8.3)	205	11	7
-	1 year	5.4	(2.9,8.9)	197	12	13
-	2 year(s)	5.9	(3.3,9.5)	172	13	17
-	4 year(s)	6.5	(3.7,10.3)	142	14	20
-	6 year(s)	8.5	(5.1,12.9)	100	17	22
-	8 year(s)	9.3	(5.6,14.1)	68	18	24
-	10 year(s)	9.3	(5.6,14.1)	48	18	26
-	12 year(s)	9.3	(5.6,14.1)	29	18	29
-	14 year(s)	9.3	(5.6,14.1)	10	18	30
-	16 year(s)	9.3	(5.6,14.1)	2	18	31
-	Overall	9.3	(5.6,14.1)	0	18	31
Heart-BE	Baseline	0.0	-	187	0	0
-	1 month	8.0	(4.7,12.5)	164	15	8
-	6 months	8.6	(5.1,13.1)	162	16	9
-	1 year	8.6	(5.1,13.1)	159	16	9
-	2 year(s)	9.1	(5.5,13.8)	140	17	11
-	4 year(s)	10.4	(6.5,15.4)	115	19	18
-	6 year(s)	11.2	(7.1,16.4)	96	20	20
-	8 year(s)	11.2	(7.1,16.4)	76	20	20
-	10 year(s)	11.2	(7.1,16.4)	50	20	23

Organ - Centre	Time	CumInc (%)	95% CI	No at risk	Cum. GF	Cum. deaths
-	12 year(s)	11.2	(7.1,16.4)	32	20	28
-	14 year(s)	11.2	(7.1,16.4)	15	20	29
-	16 year(s)	11.2	(7.1,16.4)	2	20	30
-	Overall	11.2	(7.1,16.4)	0	20	30
Pancreas-USZ	Baseline	0.0	-	124	0	0
-	1 month	8.9	(4.7,14.7)	112	11	1
-	6 months	10.5	(5.9,16.6)	110	13	1
-	1 year	11.3	(6.5,17.6)	106	14	1
-	2 year(s)	13.9	(8.4,20.7)	97	17	2
-	4 year(s)	15.7	(9.9,22.9)	80	19	5
-	6 year(s)	15.7	(9.9,22.9)	65	19	6
-	8 year(s)	18.3	(11.7,26.1)	55	21	6
-	10 year(s)	18.3	(11.7,26.1)	48	21	7
-	12 year(s)	23.9	(15.4,33.5)	27	24	11
-	14 year(s)	23.9	(15.4,33.5)	13	24	13
-	16 year(s)	23.9	(15.4,33.5)	2	24	13
-	Overall	23.9	(15.4,33.5)	0	24	13
Pancreas-HUG	Baseline	0.0	-	74	0	0
-	1 month	8.1	(3.3,15.8)	68	6	0
-	6 months	8.1	(3.3,15.8)	68	6	0
-	1 year	9.5	(4.1,17.5)	67	7	0
-	2 year(s)	12.2	(6,20.8)	63	9	0
-	4 year(s)	12.2	(6,20.8)	46	9	2
-	6 year(s)	12.2	(6,20.8)	35	9	3
-	8 year(s)	15.1	(7.3,25.4)	27	10	4
-	10 year(s)	18.7	(9,31.1)	16	11	6
-	12 year(s)	23.8	(11.1,39.1)	12	12	6
-	14 year(s)	23.8	(11.1,39.1)	7	12	7
-	16 year(s)	23.8	(11.1,39.1)	2	12	7
-	Overall	23.8	(11.1,39.1)	0	12	7

Table 33: 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
Deceased	Baseline	-	-	3018	0	0
-	1 month	2.3	(1.8,2.8)	2942	68	8
-	6 months	3.8	(3.2,4.6)	2871	116	29
-	1 year	4.6	(3.9,5.4)	2751	140	66
-	2 year(s)	5.8	(5,6.7)	2430	174	109
-	4 year(s)	8.5	(7.5,9.5)	1873	238	192
-	6 year(s)	11.5	(10.2,12.7)	1408	299	278
-	8 year(s)	13.2	(11.8,14.6)	969	327	346
-	10 year(s)	15.9	(14.3,17.5)	631	358	401
-	12 year(s)	17.9	(16.1,19.9)	392	375	436
-	14 year(s)	20.3	(18.2,22.6)	194	388	467
-	16 year(s)	22	(19.2,24.8)	40	392	478
-	Overall	22	(19.2,24.8)	0	392	478
Living	Baseline	-	-	1748	0	0
-	1 month	0.8	(0.5,1.3)	1732	14	1
-	6 months	1.4	(0.9,2)	1713	24	8
-	1 year	1.6	(1.1,2.3)	1668	28	15
-	2 year(s)	2.1	(1.5,2.8)	1537	36	29
-	4 year(s)	3.1	(2.4,4)	1290	51	42
-	6 year(s)	5	(4,6.2)	1043	75	70
-	8 year(s)	6.5	(5.3,7.9)	780	91	101
-	10 year(s)	8.5	(7,10.2)	566	107	128
-	12 year(s)	10.6	(8.8,12.7)	343	120	151
-	14 year(s)	11.8	(9.7,14.1)	196	124	166
-	16 year(s)	13.9	(11,17.2)	44	128	171
-	Overall	13.9	(11,17.2)	0	128	171

F Technical summary

All analyses were performed using the statistical software R version 4.3.2 (2023-10-31). R: A language and environment for statistical computing. R Foundation for Statistical Computing, Vienna, Austria. URL <https://www.R-project.org/>.