

FATE OF OUR PATIENTS UNDERGONE A KIDNEY TRANSPLANTATION 1976-2015

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INTRODUCTION

Our nephrology centre commenced its activities (clinical and out-patient nephrology) in 1976. The chronic dialysis programme was initiated in 1978 (with in-centre intermittent peritoneal dialysis), thus our first two patients eligible for kidney transplantation were not yet dialysed in our institution. Our centre offers haemodialysis (HD) treatment since 1983, at that time we managed HD-treatment for nearly 3 counties (approximately 1 million inhabitants), since 1989 our institution has been responsible for dialysis treatment in county Vas only, with a population of 251,000.

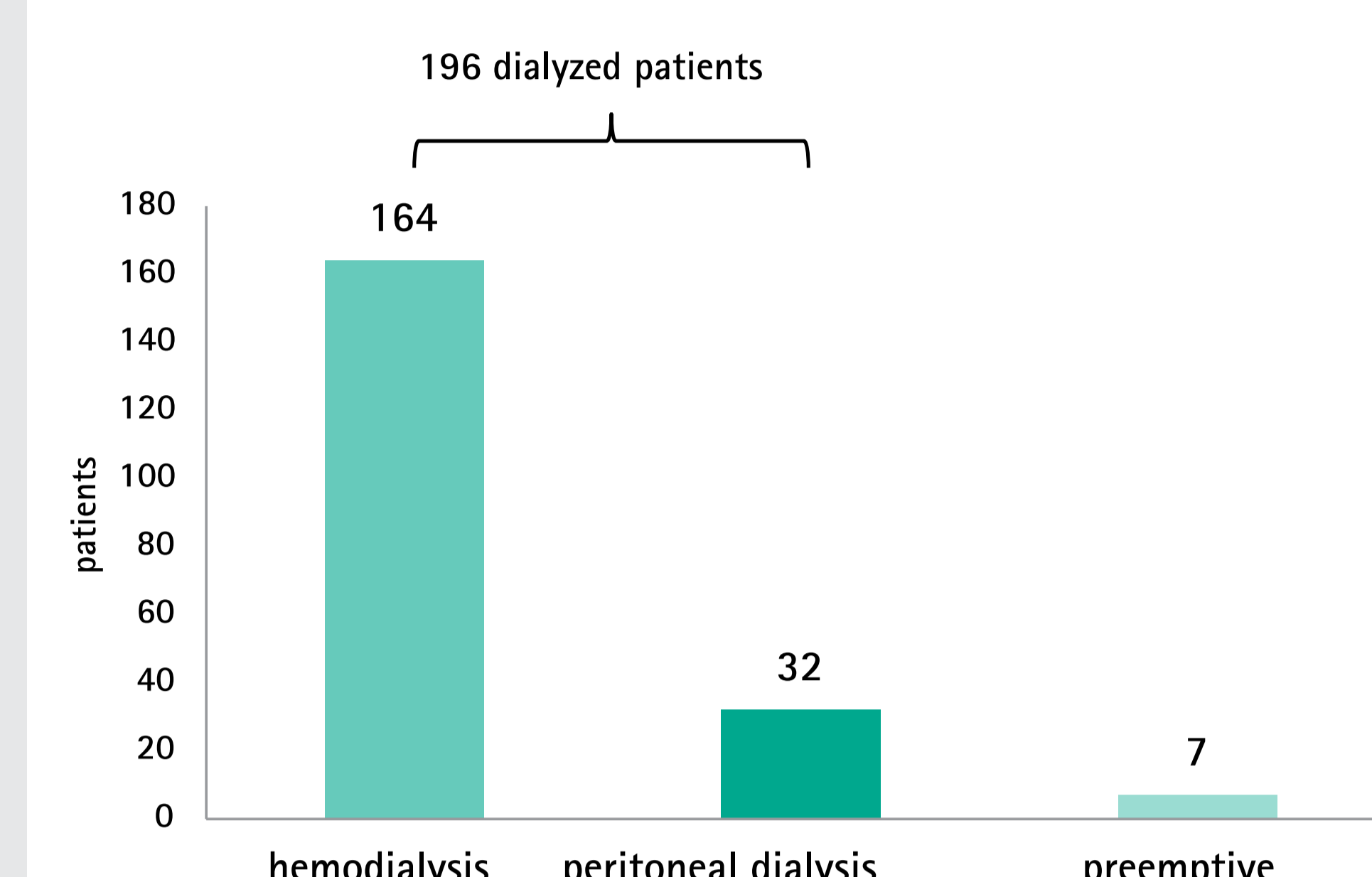
PATIENTS

- During the last 4 decades (between 1976 and 2015) 203 of our patients underwent a kidney transplantation:
 - 4 patients underwent 3 renal transplant surgeries,
 - 23 patients underwent 2 renal transplant surgeries,
 - 176 patients underwent 1 renal transplant surgery.
- In most of the cases, kidney transplantation took place in Budapest (226), the rest were carried out in Pécs (5) and Szeged (1).
- Distribution of the Tx patients by gender: female 67, male 136.

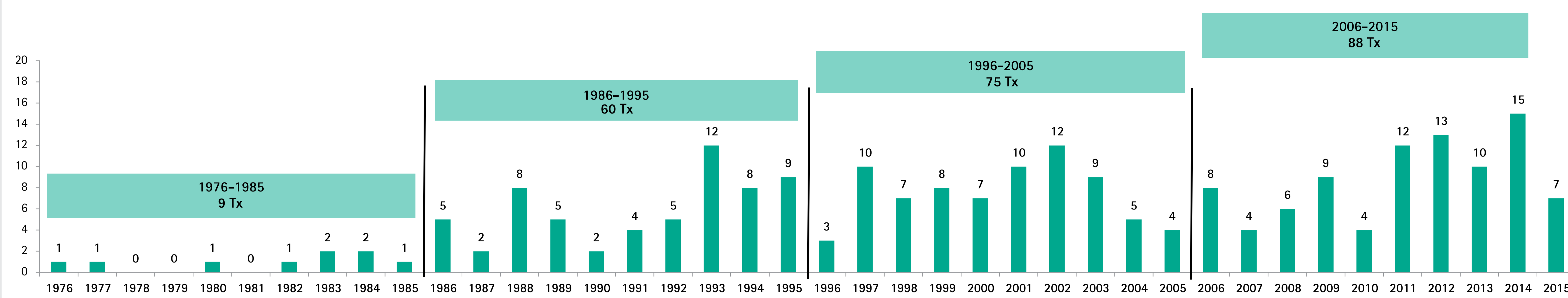
The purpose of this investigation was to gather data of transplant recipients from the last 40 years, since in Hungary, post-transplantation care of patients is done by public Transplantation Clinics.



Distribution of treatment modalities before transplantation n=203



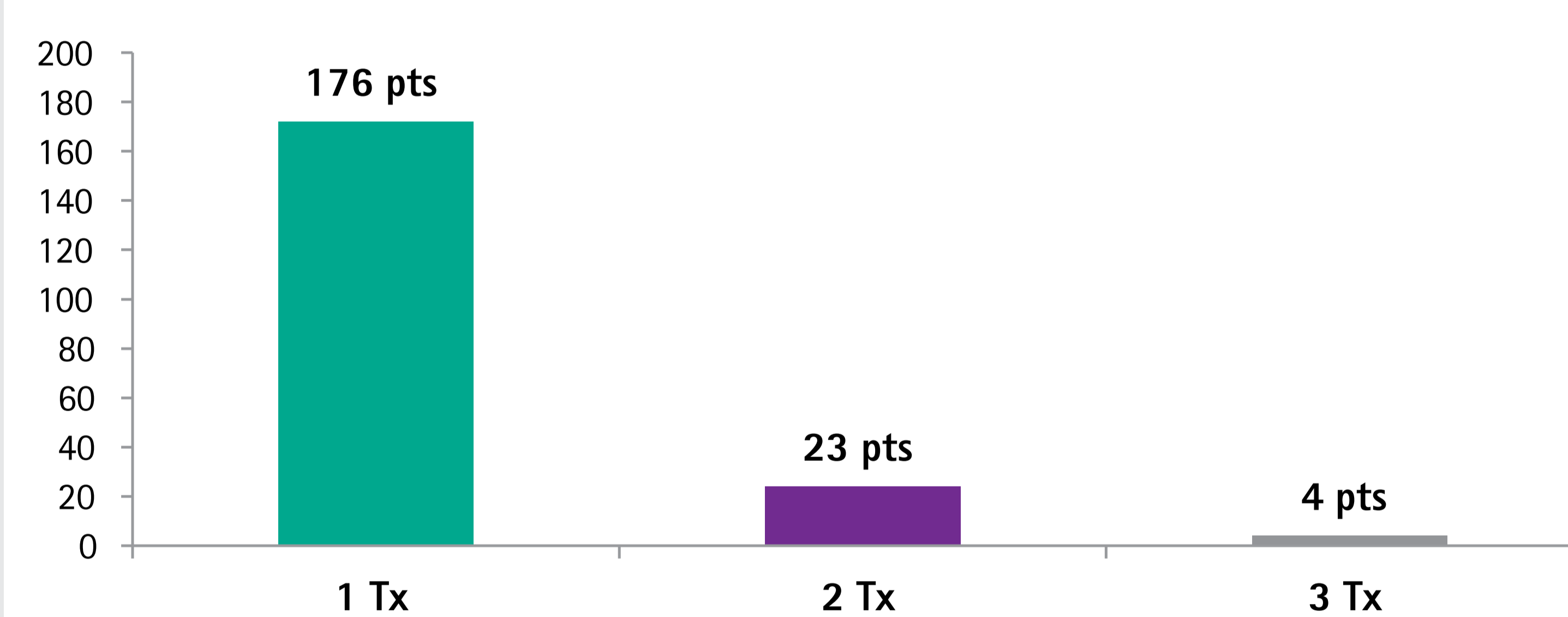
The number of successful kidney transplantations from our nephrological centre between 1976 and 2015



RESULTS

- 2 transplantations were technically unsuccessful – These cases were excluded.
- 10 patients were living-donor kidney transplant recipients, 193 patients underwent cadaver -donor transplantation surgery.
- 7 patients underwent pre-emptive kidney transplantation.
- 4 patients had combined (kidney & pancreas) transplantation.
- Nine transplantations were performed between 1976-1985, sixty between 1986-1995, seventy-five between 1996-2005, lastly, between 2006-2015 eighty-eight were carried out.
- In the first 20 years, 69 transplants (in 61 patients), in the second 20-year period 163 transplants (in 142 patients) were performed.
- Distribution of pre-transplant patients according to dialysis modality:
 - haemodialysis (HD): 164 (84%),
 - peritoneal dialysis (PD): 32 (16%).
- The average age of our patients at time of first transplantation was 47.1±14.6 (16.1-75.9) years.
 - The average age of our transplant-patients between 1976 and 1995 was 39.5±13.3 years.
 - The average age of our transplant-patients between 1996 and 2015 was 49.8±14.1 years, i.e. it increased by 10 years on average.
- Data of post-transplant patients:
 - 103 out of 203 patients recovered fully (50.7%), no follow-up data were available for 7 patients (3.5%), 93 patients died (45.8%).
 - 6 out of 61 patients who received kidney transplant in the first 20-year period are still alive (5 with renal transplantation, 1 on dialysis).
 - Both organs of 4 of our combined (kidney & pancreas) transplant patients are functioning satisfactorily.
 - Proportion of living donor transplants was very low (10/232=4.3%).
 - Average survival time on renal replacement therapy (RRT) for all patients on dialysis + with functioning graft, or transplantation alone: in case of pre-emptive transplantation) was only 13.3±10.9 (0.1-36.1) years. Infections played a major role (mainly in the first 20 years) in the mortality of 6 patients within 4-6 weeks after surgery.
 - The mean survival time of currently alive (31 Dec 2015) 103 transplanted patients on RRT were 15.5±11.5 years. Average survival time were 11.4±9.8 years of dead patients only.

Distribution the Tx patients according to the number of transplantation n(Tx)=232 n(pts)=203



Fate of transplanted patients

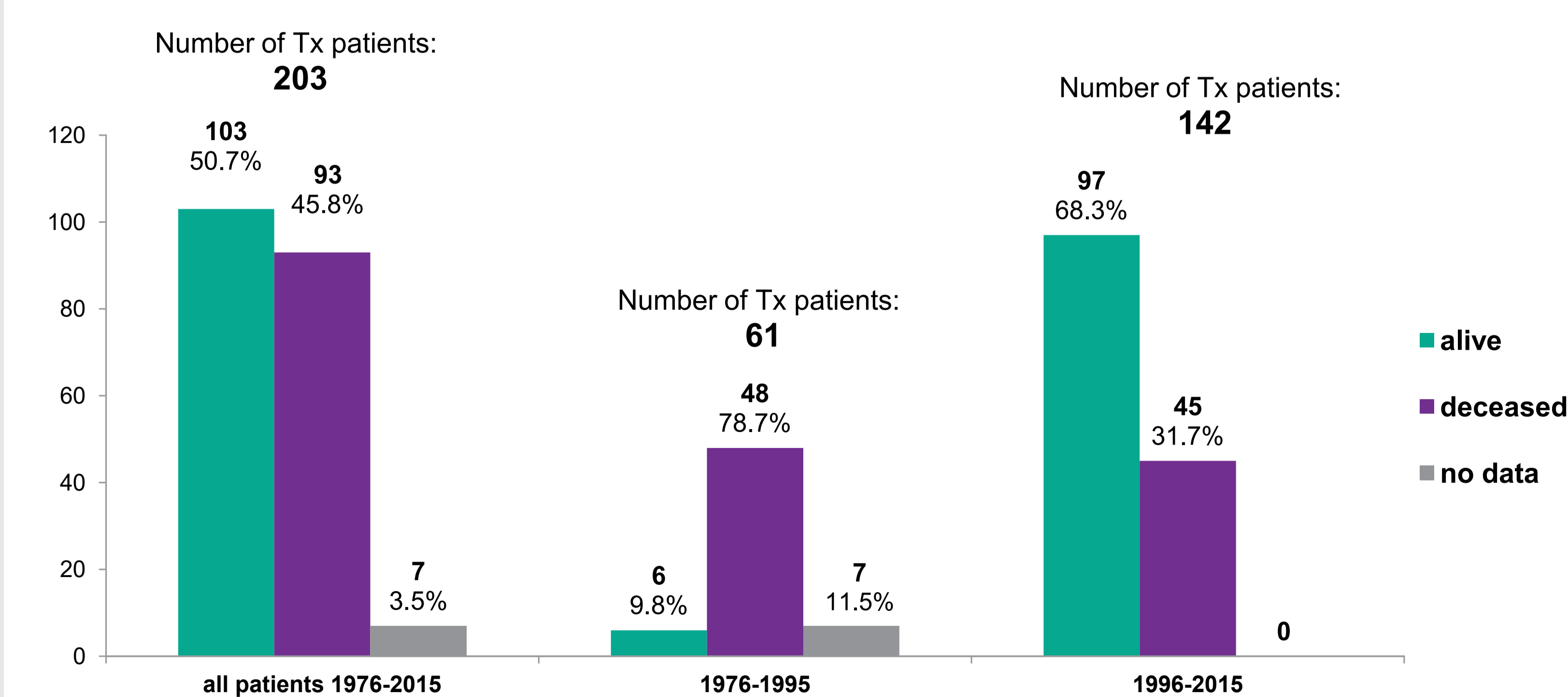
	currently alive		dead	no data
	with functioning graft	on dialysis		
1976-1995 Number of patients: 61 Tx number: 69	5	1	48	7
1996-2015 Number of patients: 142 Tx number: 163	90	7	45	0
in total Number of patients: 203 Tx number: 232	95	8	93	7

Survival of transplanted patients in renal replacement therapy (RRT)

	on dialysis	with functioning graft	total
all patients*	4.9±4.5 years	8.4±6.4 years	13.3±10.9 years
currently alive	5.7±4.7 years	9.8±6.8 years	15.5±11.5 years
died	4.4±4.1 years	7.0±5.7 years	11.4±9.8 years

* excluding Tx patients without dialysis, and those whose fate is unknown (14 of total patients)

Development of the fate of transplanted patients n=203



CONCLUSION

- 203 of our patients have undergone a total of 232 renal transplantation surgeries during the last 40 years.
- 95 patients living full and active lives with transplanted kidneys, 8 patients returned to dialysis after kidney transplant failure, thus the proportion of patients alive exceeds 50%.
- The majority of transplanted kidneys was from deceased (cadaveric) donors, the proportion of living donations was very low.
- 256 patients were in the chronic dialysis programme of our center at the end of 2015 (198 HD, 58 PD). The prevalence of dialysed patients was 1018 per one million inhabitants (pmp).
- 95 of our patients (378 pmp) living with a transplanted kidney (functioning graft), consequently the prevalence of all our patients on RRT was 1396 pmp.