

SECTION D CAUSE OF DEATH



This section's data are available on-line in Tableau format which enables interaction with the data: <http://www.srr.scot.nhs.uk/publications/Dashboards/Cause-of-Death.html>.

Please see Summary of Data section of the report for details on the inclusion/exclusion of patients.

D1 Death in the prevalent RRT population 2008-2017								
Year of death	Number of deaths	% of deaths in RRT population*	Age at death		Age when Starting RRT (Years)		Time on RRT before death (Years)	
			Median	IQR	Median	IQR	Median	IQR
2008-2012**	2164	9.0	71	(61,78)	66	(53,75)	3	(1,7)
2013	446	8.8	71	(61,79)	65	(53,75)	4	(1,9)
2014	429	8.3	72	(63,79)	66	(53,74)	3	(1,8)
2015	460	8.6	71	(61,78)	66	(53,74)	4	(1,9)
2016	470	8.6	70	(59,78)	62	(50,73)	4	(1,9)
2017	487	8.6	71	(62,79)	66	(52,74)	4	(1,9)

* Percentage of deaths is expressed as: number of deaths in given year/number of patients starting RRT in given year + number prevalent on 31 December of previous year.

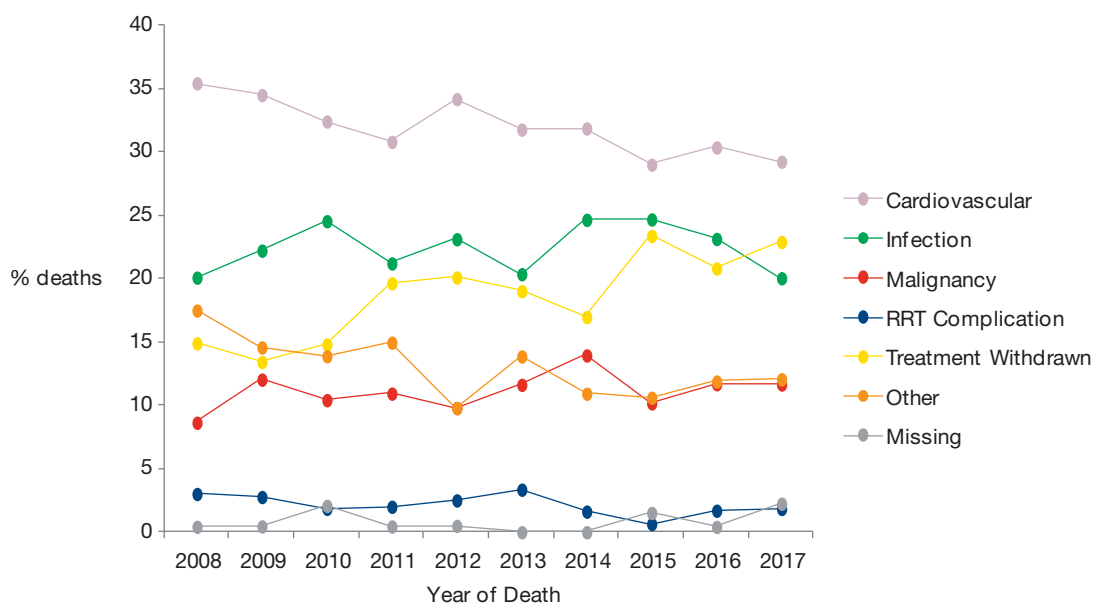
** Average taken over 5 year period.

D2 Cause of death group by year 2008-2017														
Cause of death	2008-2012		2013		2014		2015		2016		2017		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Cardiovascular	727	34	142	32	137	32	134	29	143	30	143	29	1426	32
Infection	481	22	91	20	106	25	113	25	109	23	98	20	998	22
Malignancy	225	10	51	11	60	14	47	10	55	12	57	12	495	11
Other	310	14	62	14	47	11	48	10	56	12	59	12	582	13
RRT Complication	53	2	15	3	7	2	3	1	8	2	9	2	95	2
Treatment Withdrawn	355	16	85	19	72	17	108	23	98	21	112	23	830	19
Missing	13	1	0	0	0	0	7	2	1	0	9	2	30	1
Total	2164		446		429		460		470		487		4456	

Cause of death has been collected as part of the Scottish Mortality Audit of Renal Replacement Therapy (SMARRT) since January 2008. Cause of death was available for just 72% of those dying between 1990 and 1999, 51% between 2000 and 2007 and 99% since 2008 and the creation of SMARRT.

ERA-EDTA Cause of death codes and the groupings used in SRR reports are available on the SRR website: <http://www.srr.scot.nhs.uk/Projects/Methods.html>.

D3 Trends in cause of death group by year 2008-2017



D4 Cause of death group and modality of RRT at death 2008-2017

Cause of death	Modality								
	HD		PD		Tx		RRT stopped*		All
	n	%	n	%	n	%	n	%	n
Cardiovascular	1126	35	103	38	172	26	25	7	1426
Infection	733	23	45	17	189	28	31	9	998
Malignancy	256	8	23	9	163	24	53	15	495
Other	399	13	47	17	114	17	22	7	582
RRT Complication	65	2	18	7	7	1	5	1	95
Treatment Withdrawn	577	18	31	12	21	3	201	58	830
Missing	21	1	1	1	7	1	1	2	30
Total	3177	—	268	—	673	—	338	—	4456

* This group were recorded on the SRR as having stopped RRT with no recovery of renal function, prior to death.

Of those patients who died within 90 days after stopping RRT between 2008-2017 the median, IQR and range between stopping RRT and death was 7 days, 4-12 days and 0-88 days respectively.

Over the time period 2008-2017 15 patients stopped RRT and then survived for more than 90 days. They had received RRT for a median of 245 days, range 5-2734 days before stopping RRT.

D5 Cause of death by age group 2008-2017												
Cause of death	Age group										Total	Median Age
	<20		20-44		45-64		65-74		≥75			
	n	%	n	%	n	%	n	%	n	%		
Cardiovascular	2	29	73	32	458	38	418	32	475	28	1426	69
Infection	1	14	42	19	258	22	317	24	380	22	998	71
Malignancy	0	0	21	9	150	13	169	13	155	9	495	69
Other	1	14	49	22	172	14	166	13	194	11	582	67
RRT Complication	2	29	18	8	21	2	30	2	24	1	95	76
Treatment Withdrawn	1	14	18	8	131	11	201	15	479	28	830	69
Missing	0	0	4	2	6	1	8	1	12	1	30	69
Total	7	/	225	/	1196	/	1309	/	1719	/	4456	71

D6 Cause of death by primary renal diagnosis 2008-2017											
Cause of death	PRD Group										Total
	Glomerulo-nephritis		Interstitial		Multisystem		Diabetic nephropathy		Unknown		
	n	%	n	%	n	%	n	%	n	%	
Cardiovascular	181	29	258	29	323	30	464	42	200	26	1426
Infection	145	24	223	25	232	21	222	20	175	23	997
Malignancy	88	14	133	15	160	15	42	4	72	9	495
Other	89	14	129	15	109	10	148	13	107	14	582
RRT Complication	15	2	20	2	22	2	17	2	21	3	95
Treatment Withdrawn	94	15	116	13	234	22	204	18	182	24	830
Missing	4	1	4	0	7	1	12	1	3	0	30
Total	616	/	883	/	1087	/	1109	/	760	/	4455

There is one patient with a missing PRD code.