

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 2008-2016				
Year of death	Number of deaths	% of deaths in RRT population*	Age at death	
			Median	IQR
2008-2011**	1768	9.1	71	(63,78)
2012	396	7.8	71	(61,78)
2013	446	8.7	71	(61,79)
2014	429	8.1	72	(63,78)
2015	461	8.3	71	(61,78)
2016	469	8.4	70	(59,77)

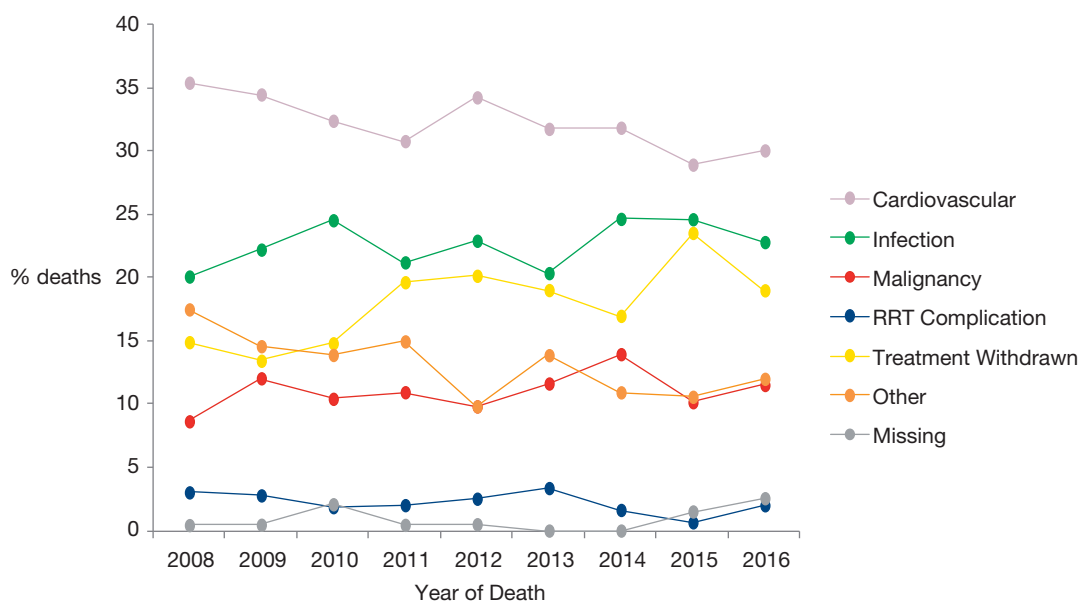
* Percentage of deaths is expressed as: number of deaths in given year/number of patients starting RRT in given year + number prevalent on 31 December of previous year.

** Average taken over 4 year period.

D2 Cause of death group by year 2008-2016														
Year of death	2008-2011		2012		2013		2014		2015		2016		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Cardiovascular	591	33	136	34	142	32	137	32	134	29	141	30	1281	32
Infection	389	22	91	23	91	20	106	25	113	25	107	23	897	22
Malignancy	186	11	39	10	51	11	60	14	47	10	54	12	437	11
Other	271	15	39	10	62	14	47	11	48	10	56	12	523	13
RRT Complication	43	2	10	3	15	3	7	2	3	1	8	2	86	2
Treatment Withdrawn	276	16	79	20	85	19	72	17	109	24	91	19	712	18
Missing	12	1	2	1	0	0	0	0	7	2	12	3	33	2
Total	1768		396		446		429		461		469		3969	

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 98% 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 2008-2016

D4 Cause of death group and modality of RRT at death 2008-2016

Cause of death	Modality									
	HD		PD		Tx		RRT stopped*		All	
	n	%	n	%	n	%	n	%	n	%
Cardiovascular	1016	36	92	38	149	25	24	8	1281	32
Infection	663	23	39	16	165	28	30	10	897	23
Malignancy	226	8	20	8	143	24	48	15	437	11
RRT Complication	56	2	18	7	7	1	5	2	86	2
Treatment Withdrawn	482	17	29	12	18	3	183	58	712	18
Other	362	13	43	18	97	17	21	7	523	13
Missing	23	1	1	0	7	1	2	1	33	1
Total	2428		242		586		313		3969	

* 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 2008-2016 the median, IQR and range between stopping RRT and death was 7 days, 3-12 days and 0-88 days respectively.

Over the time period 2008-2016 13 patients stopped RRT and then survived for more than 90 days. They had received RRT for a median of 84 days, range 5-2734 days before stopping RRT.

D5 Cause of death by age group 2008-2016												
Cause of death	Age group										Total	Median Age
	<20		20-44		45-64		65-74		≥75			
	n	%	n	%	n	%	n	%	n	%		
Cardiovascular	1	17	70	34	406	38	379	33	425	28	1281	69
Infection	0	0	39	19	232	22	283	24	343	22	897	71
Malignancy	0	0	19	9	136	13	149	13	133	9	437	69
RRT Complication	2	33	17	8	19	2	26	2	22	1	86	67
Treatment Withdrawn	1	17	11	5	109	10	173	15	418	27	712	76
Other	1	17	43	21	158	15	148	13	173	11	523	69
Missing	1	17	4	2	8	1	5	0	15	1	33	69
Total	6	—	203	—	1068	—	1163	—	1529	—	3969	71

D6 Cause of death by primary renal diagnosis 2008-2016											
Cause of death	PRD Group										Total
	Glomerulo-nephritis		Interstitial		Multisystem		Diabetic nephropathy		Unknown		
	n	%	n	%	n	%	n	%	n	%	
Cardiovascular	168	31	235	30	295	30	411	43	172	25	1281
Infection	126	23	204	26	210	21	190	20	166	24	896
Malignancy	75	14	122	15	146	15	30	3	64	9	437
RRT Complication	12	2	19	2	20	2	14	1	21	3	86
Treatment Withdrawn	84	15	96	12	200	20	170	18	162	24	712
Other	80	15	112	14	104	11	131	14	96	14	523
Missing	5	1	8	1	5	1	11	1	4	1	33
Total	550	—	796	—	980	—	957	—	685	—	3968

There is one patient with a missing PRD code.