

Chapter 3

Adults on kidney replacement therapy (KRT) in the UK at the end of 2024

Contents

Introduction 56

Rationale for analyses 57

Key findings 58

Analyses 59

 Changes to the prevalent adult KRT population 59

 Demographics and treatment modality of prevalent adult KRT patients 62

 Dialysis access in prevalent adult dialysis patients 71

 Survival in adult dialysis patients 71

 Cause of death in adult KRT patients 76

Introduction

This chapter describes the population of adult patients with end-stage kidney disease (ESKD) who were on kidney replacement therapy (KRT) in the UK at the end of 2024 (figure 3.1). Patients may have started KRT prior to 2024 or during 2024. Three KRT modalities are available to patients with ESKD – haemodialysis (HD), peritoneal dialysis (PD) and kidney transplantation (Tx). HD may be undertaken in-centre (ICHD) or at home (HHD).

The size of the prevalent population on each KRT modality reflects uptake to the modality by new KRT patients (chapter 2); the number of patients switching from one modality to another; and the length of time patients remain on a modality before they switch to another, withdraw from KRT or die.

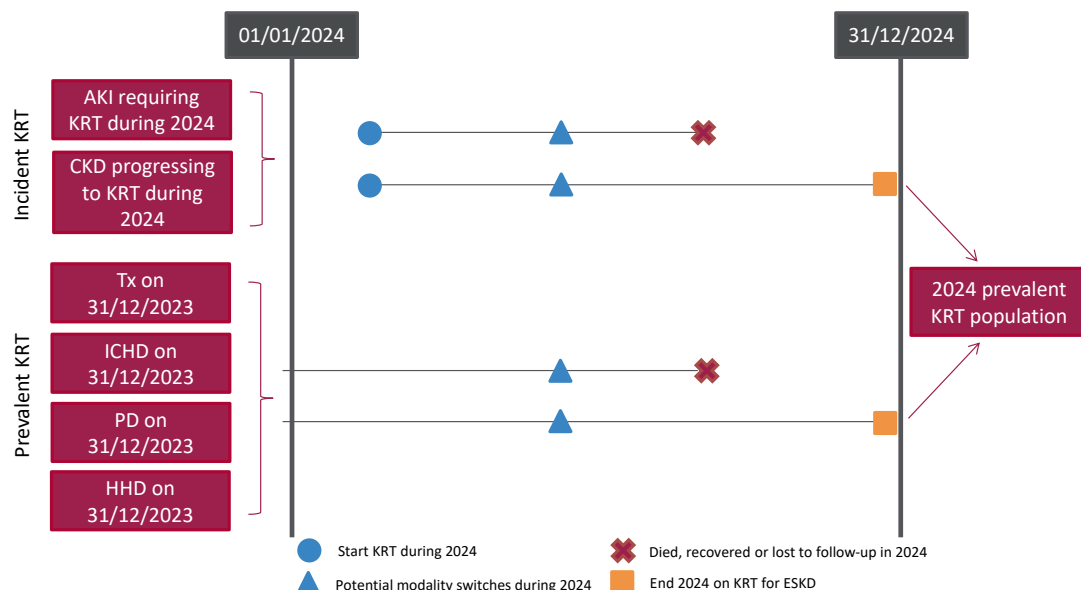


Figure 3.1 Pathways adult patients could follow to be included in the UK 2024 prevalent KRT population

Note that patients receiving dialysis for acute kidney injury (AKI) are only included in this chapter if they had a timeline or KRT modality code for chronic KRT at the end of 2024 or if they had been on KRT for ≥ 90 days and were on KRT at the end of 2024 CKD – chronic kidney disease; Tx – transplant

Survival and cause of death analyses were undertaken on historic prevalent cohorts to allow sufficient follow-up time.

Rationale for analyses

The analyses begin with a description of the 2024 prevalent adult KRT population, including the number on KRT per million population (pmp). These analyses are performed annually to help clinicians and policy makers plan future KRT requirements in the UK. Variation in case-mix is also reported to aid understanding of how to improve equity of KRT provision in the UK.

The UK Kidney Association guidelines (ukkidney.org/health-professionals/guidelines/guidelines-commentaries) provide audit measures relevant to the care of patients on KRT, but these are treatment-specific – for further details see the guideline tables in each chapter.

For definitions and methods relating to this chapter see appendix A.

Key findings

- 74,157 adult patients were receiving KRT for ESKD on 31/12/2024. This represents a 2.0% increase from 2023, in line with the 2-2.5% increase that was seen in the years before the pandemic.
- KRT prevalence was 1,348 per million population compared to 1,341 per million population in 2023, an increase of 0.51%.
- The median age of KRT patients was 60.3 years (ICHD 65.5 years, HHD 56.3 years, PD 63.5 years and Tx 57.3 years). In 2020 the median age was 59.6 years (ICHD 66.5 years, HHD 55.3 years, PD 63.5 years and Tx 56.0 years).
- 61.6% of KRT patients were male.
- Tx continued as the most common treatment modality (56.0%) – ICHD comprised 36.8%, PD 5.2% and HHD 2.0% of the KRT population.
- The most common identifiable primary renal disease (PRD) was glomerulonephritis (19.8%), followed by diabetes (19.0%).
- There were 4 centres above the upper 95% limit and 1 centre below the lower 95% limit in the funnel plots showing 1 year age-, sex- and comorbidity-adjusted survival for patients prevalent to dialysis on 31/12/2023. It is expected that 3 centres would be outside the limits by chance.
- The leading cause of death was cardiac disease in both younger (<65 years) and older (≥65 years) patients at 24.2% and 18.0% respectively.

For information on data quality issues relating to the following centres see Appendix A section 2.2: Antrim, Belfast, Cambridge, Ipswich, Manchester Royal Infirmary, and Ulster.

Analyses

Changes to the prevalent adult KRT population

For the 67 adult kidney centres, the number of prevalent patients on KRT was calculated as a proportion of the estimated centre catchment population (calculated as detailed in appendix A).

Table 3.1 Number of adult patients prevalent to KRT by year and by centre, and as a proportion of the catchment population

Centre	N on KRT					Estimated catchment population (millions)	2024 crude rate (pmp)
	2020	2021	2022	2023	2024		
ENGLAND							
Bham	3,261	3,304	3,388	3,408	3,469	2.13	1,629
Bradfd	725	736	781	825	841	0.52	1,631
Brightn	1,078	1,091	1,097	1,148	1,180	1.10	1,074
Bristol	1,475	1,494	1,519	1,516	1,524	1.29	1,184
Camb	1,509	1,623	1,656	1,627	1,711	1.00	1,704
Carlis	296	306	302	305	332	0.26	1,262
Carsh	1,848	1,903	1,936	1,997	2,088	1.71	1,224
Colchr	150	146	155	165	181	0.30	599
Covnt	1,109	1,129	1,130	1,152	1,160	0.82	1,416
Derby	675	691	718	735	775	0.59	1,324
Donc	341	341	380	388	382	0.39	990
Dorset	797	787	791	817	832	0.76	1,092
Dudley	374	403	383	371	359	0.36	1,006
EssexMS	885	895	891	973	1,006	1.03	979
Exeter	1,092	1,082	1,095	1,135	1,183	1.00	1,180
Glouc	522	545	557	561	577	0.53	1,079
Hull	913	917	934	958	971	0.82	1,178
Ipswi	426	422	396	400	400	0.32	1,238
Kent	1,144	1,192	1,220	1,244	1,277	1.10	1,159
L Barts	2,669	2,723	2,838	2,965	3,138	1.64	1,912
L Guys	2,317	2,326	2,311	2,299	2,300	1.02	2,248
L Kings	1,253	1,333	1,395	1,432	1,472	0.96	1,535
L Rfree	2,336	2,395	2,423	2,486	2,533	1.29	1,956
L St.G	856	875	858	880	916	0.68	1,349
L West	3,530	3,547	3,612	3,694	3,688	2.06	1,787
Leeds	1,752	1,785	1,841	1,909	1,987	1.43	1,393
Leic	2,622	2,634	2,722	2,816	2,920	2.21	1,319
Liv UH	1,445	1,461	1,477	1,502	1,531	1.29	1,189
M RI	1,985	2,068	2,108	2,258	2,128	1.39	1,535
Middlbr	946	958	956	972	1,002	0.83	1,204
Newc	1,197	1,225	1,247	1,284	1,276	0.97	1,313
Norwch	810	800	803	807	797	0.72	1,112
Nottm	1,208	1,217	1,208	1,196	1,240	0.95	1,309
Oxford	2,019	2,004	2,075	2,123	2,170	1.56	1,387
Plymth	539	541	539	536	540	0.42	1,285
Ports	1,900	1,943	1,999	2,032	2,070	1.81	1,141
Prestn	1,368	1,374	1,400	1,429	1,512	1.29	1,171
Redng	870	879	923	990	1,043	0.75	1,382
Salford	1,267	1,217	1,271	1,376	1,408	1.21	1,167
Sheff	1,495	1,501	1,488	1,479	1,503	1.14	1,317
Shrew	427	442	446	463	453	0.43	1,053
Stevng	980	1,023	1,067	1,118	1,144	1.17	976

Table 3.1 Continued

Centre	N on KRT					Estimated catchment population (millions)	2024 crude rate (pmp)
	2020	2021	2022	2023	2024		
Stoke	816	845	907	921	913	0.76	1,202
Sund	556	546	565	590	627	0.55	1,133
Truro	444	463	471	467	455	0.37	1,227
Wirral	418	417	404	386	421	0.49	860
Wolve	654	695	725	791	831	0.56	1,477
York	572	581	609	610	613	0.50	1,226
N IRELAND							
Antrim	287	296	306	310	302	0.25	1,208
Belfast	889	908	925	937	922	0.54	1,702
Newry	264	281	269	276	297	0.24	1,240
Ulster	201	203	208	210	193	0.21	934
West NI	351	339	355	356	367	0.25	1,442
SCOTLAND							
Abrdn	565	580	590	611	628	0.50	1,245
Airdrie	514	503	514	550	547	0.47	1,159
D&Gall	157	154	147	147	159	0.12	1,301
Dundee	424	402	387	383	362	0.37	972
Edinb	886	921	964	989	1,042	0.86	1,216
Glasgw	1,843	1,853	1,890	1,908	1,928	1.40	1,379
Inverns	272	274	277	293	281	0.23	1,232
Klmarnk	368	366	374	386	386	0.29	1,309
Krkldy	289	291	285	286	282	0.28	1,014
WALES							
Bangor	216	217	220	218	227	0.16	1,414
Cardff	1,681	1,701	1,759	1,829	1,841	1.18	1,566
Clwyd	204	202	204	223	222	0.18	1,202
Swanse	850	852	848	899	956	0.76	1,251
Wrexm	322	303	307	326	336	0.21	1,582
TOTALS							
England	57,871	58,825	60,017	61,536	62,879	46.50	1,352
N Ireland	1,992	2,027	2,063	2,089	2,081	1.49	1,394
Scotland	5,318	5,344	5,428	5,553	5,615	4.53	1,240
Wales	3,273	3,275	3,338	3,495	3,582	2.50	1,434
UK	68,454	69,471	70,846	72,673	74,157	55.02	1,348

Country KRT populations were calculated by summing the KRT patients from centres in each country. Estimated country populations were derived from publicly available sources (see appendix A for details on estimated catchment population by kidney centre)

pmp – per million population

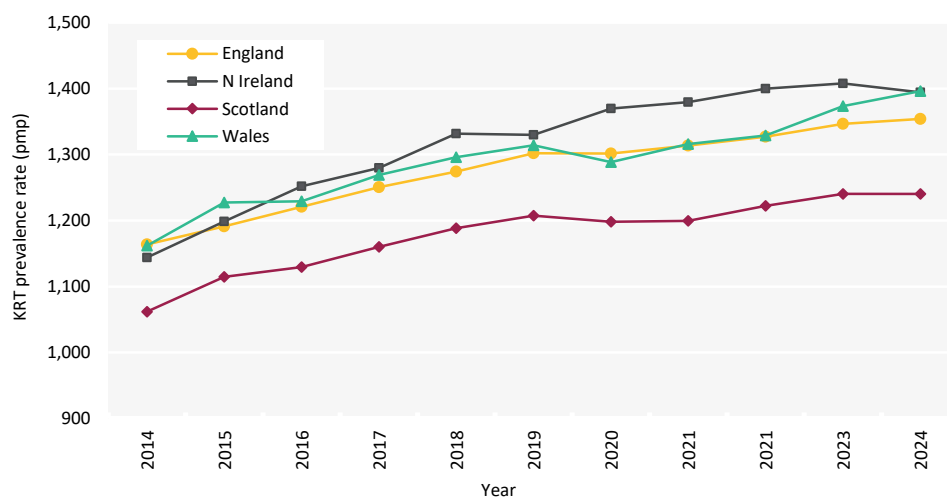


Figure 3.2 Adult KRT prevalence rates by country between 2014 and 2024
pmp – per million population

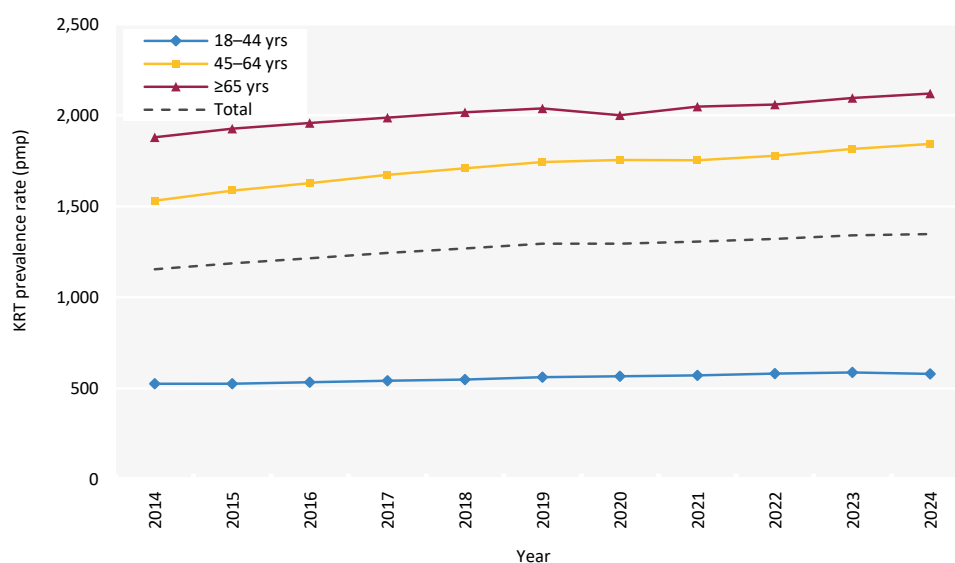


Figure 3.3 Adult KRT prevalence rates by age group between 2014 and 2024
pmp – per million population

Demographics and treatment modality of prevalent adult KRT patients

The proportion of KRT patients from each ethnic group is shown for patients with ethnicity data – the proportion of centre patients with no ethnicity data is shown separately.

Variation between centres in the proportion of dialysis patients on home therapies (PD and HHD combined) is shown in figure 3.4.

Table 3.2 Demographics and treatment modality of adult patients prevalent to KRT on 31/12/2024 by centre

Centre	N on KRT	% on ICHD	% on PD	% on HHD	% with Tx	Median age (yrs)	% male	Ethnicity				
								% White	% Asian	% Black	% Other	% missing
ENGLAND												
Bham	3,469	41.3	7.1	2.0	49.6	59.1	59.8	54.1	30.7	12.0	3.2	1.2
Bradfd	841	42.3	3.0	0.5	54.2	56.4	60.2	48.0	47.4	2.5	2.0	0.5
Brightn	1,180	40.9	5.6	2.5	51.0	61.5	61.5	88.0	5.7	2.8	3.4	3.9
Bristol	1,524	30.2	4.5	0.9	64.5	59.0	62.1	85.5	5.1	7.2	2.2	0.3
Camb	1,711	22.4	1.6	1.3	74.8	59.2	64.2	88.4	6.8	2.8	2.0	1.4
Carlisle	332	38.6	8.7	1.2	51.5	61.4	60.8	96.9	2.2	0.6	0.3	2.7
Carsh	2,088	47.4	6.2	1.2	45.2	62.6	61.6	61.2	20.5	13.1	5.1	4.4
Colchr	181	100.0	0.0	0.0	0.0	70.5	68.0	88.9	1.5	3.7	5.9	25.4
Covnt	1,160	33.5	6.1	1.9	58.4	59.9	62.2	75.0	18.1	5.7	1.2	0.8
Derby	775	41.7	8.4	7.6	42.3	61.9	63.0	80.9	13.1	3.2	2.8	8.1
Donc	382	51.3	4.5	2.6	41.6	63.3	63.9	91.7	3.1	2.3	2.9	8.4
Dorset	832	38.8	5.4	1.7	54.1	64.3	62.3	94.1	2.8	1.0	2.2	0.1
Dudley	359	51.5	10.0	2.5	35.9	63.6	64.9	77.7	15.3	6.1	0.8	0.0
EssexMS	1,006	49.4	11.4	1.2	38.0	63.3	64.0	82.4	5.9	7.5	4.2	5.0
Exeter	1,183	42.9	6.5	1.7	48.9	63.1	64.4	97.5	1.3	0.5	0.7	1.6
Glouc	577	38.3	7.5	0.3	53.9	63.8	60.8	89.8	4.3	2.8	3.1	0.2
Hull	971	39.5	6.4	1.8	52.3	60.2	62.9	94.7	1.9	1.6	1.9	1.5
Ipswi	400	38.5	2.8	0.0	58.8	63.5	63.3	82.7	2.0	4.6	10.7	1.8
Kent	1,277	38.5	4.2	1.9	55.4	60.0	60.5	89.1	3.7	2.8	4.4	1.3
L Barts	3,138	41.2	8.3	1.8	48.8	58.6	58.2	30.6	37.4	26.2	5.7	1.1
L Guys	2,300	30.0	2.0	1.4	66.6	57.8	59.7	54.1	10.5	28.0	7.4	2.3
L Kings	1,472	46.2	7.2	2.7	43.9	60.2	63.0	39.5	14.5	40.8	5.2	2.4
L Rfree	2,533	32.6	5.3	0.6	61.5	59.6	60.7	40.0	21.4	22.0	16.6	3.8
L St.G	916	34.1	6.7	0.8	58.5	60.7	57.6	39.1	25.2	25.5	10.3	5.2
L West	3,688	37.0	5.0	1.2	56.8	60.9	62.5	34.5	39.0	19.2	7.3	0.0
Leeds	1,987	34.5	3.6	1.3	60.6	58.3	61.1	73.8	18.1	6.2	2.0	0.2
Leic	2,920	37.2	6.1	1.3	55.3	60.6	61.4	71.7	20.3	5.7	2.2	4.8
Liv UH	1,531	36.9	3.1	3.9	56.0	59.5	63.1	89.8	3.4	3.4	3.4	6.7
M RI	2,128	29.3	4.6	3.1	63.0	58.5	60.6	67.3	18.6	10.3	3.8	1.6
Middlbr	1,002	37.0	1.3	1.8	59.9	60.7	62.1	91.6	5.4	1.2	1.8	1.5
Newc	1,276	29.9	4.3	2.0	63.8	59.9	59.7	91.8	5.3	1.6	1.3	0.0
Norwch	797	38.9	7.7	1.8	51.7	63.5	63.5	95.2	2.4	1.3	1.1	10.4
Nottm	1,240	30.2	9.7	2.3	57.7	59.1	60.1	79.1	7.0	8.3	5.6	1.4
Oxford	2,170	23.3	4.8	1.2	70.7	59.1	61.8	76.7	12.8	6.2	4.3	7.2
Plymth	540	28.3	7.0	0.9	63.7	61.5	63.3	96.1	1.7	0.7	1.5	0.4
Ports	2,070	34.3	4.9	3.9	57.0	60.8	60.8	91.5	4.8	1.3	2.5	13.3
Prestn	1,512	36.5	4.0	3.0	56.4	59.9	61.6	81.9	15.7	1.4	1.1	6.6
Redng	1,043	37.9	4.6	1.9	55.6	61.2	64.6	60.5	23.1	6.9	9.4	11.3
Salford	1,408	36.4	6.5	2.4	54.7	58.7	61.1	74.2	18.3	4.8	2.7	2.8
Sheff	1,503	40.3	4.7	2.8	52.2	59.9	63.0	85.0	8.5	3.7	2.8	1.8
Shrew	453	34.9	14.1	8.2	42.8	62.7	65.6	89.3	4.3	2.9	3.4	2.6
Stevng	1,144	53.9	3.3	4.2	38.5	61.8	64.2	64.3	19.3	9.8	6.6	2.7
Stoke	913	36.8	9.5	3.5	50.2	60.5	63.4	88.9	6.0	2.5	2.6	4.6

Table 3.2 Continued

Centre	N on KRT	% on ICHD	% on PD	% on HHD	% with Tx	Median age (yrs)	% male	Ethnicity				
								% White	% Asian	% Black	% Other	% missing
Sund	627	40.5	7.0	1.6	50.9	61.5	61.7	94.9	3.2	0.6	1.3	0.2
Truro	455	39.1	3.5	2.4	54.9	61.9	61.3	98.5	0.4	0.2	0.9	0.0
Wirral	421	42.5	3.1	1.9	52.5	61.8	61.8	94.3	3.1	1.9	0.7	0.2
Wolve	831	54.6	7.3	4.7	33.3	60.7	60.6	67.4	16.3	4.4	12.0	0.8
York	613	35.6	5.1	2.8	56.6	62.5	63.5	95.9	1.3	0.3	2.5	1.5
N IRELAND												
Antrim	302	37.1	5.0	0.3	57.6	63.7	61.3	99.2	0.0	0.4	0.4	13.9
Belfast	922	15.8	2.6	0.9	80.7	59.3	60.2	96.5	2.6	0.3	0.6	6.5
Newry	297	29.0	4.4	0.7	66.0	62.5	60.9	97.7	0.8	1.2	0.4	12.8
Ulster	193	42.0	2.1	0.0	56.0	64.2	64.8	94.1	4.3	1.6	0.0	3.6
West NI	367	31.1	1.6	0.8	66.5	59.2	61.0	98.5	1.5	0.0	0.0	10.9
SCOTLAND												
Abrdn	628	35.0	2.7	1.1	61.1	58.3	59.2					
Airdrie	547	35.6	5.7	0.0	58.7	59.8	56.9					
D&Gall	159	39.6	4.4	0.6	55.3	62.3	61.6					
Dundee	362	38.7	5.5	0.6	55.2	62.2	61.9					
Edinb	1,042	29.5	2.3	1.0	67.3	59.1	65.1					
Glasgw	1,928	30.7	1.7	1.0	66.6	59.8	59.3					
Inverns	281	31.7	1.8	1.4	65.1	60.4	60.1					
Klmarnk	386	40.2	6.7	3.9	49.2	61.6	60.4					
Krkldy	282	62.1	3.9	0.7	33.3	63.7	62.1					
WALES												
Bangor	227	35.7	5.7	8.8	49.8	62.1	63.9	97.3	0.0	1.1	1.6	19.8
Cardff	1,841	31.2	3.2	2.2	63.4	59.4	62.5	90.7	6.1	1.7	1.5	8.6
Clwyd	222	44.1	8.1	5.0	42.8	62.1	66.2	97.9	1.6	0.5	0.0	14.9
Swanse	956	46.3	5.0	4.4	44.2	62.5	61.6	95.6	2.5	0.9	1.1	3.3
Wrexm	336	35.1	8.6	2.7	53.6	60.3	62.8	96.3	1.6	0.6	1.6	4.5
TOTALS												
England	62,879	37.3	5.5	2.0	55.1	60.3	61.6	70.0	15.9	9.7	4.4	3.1
N Ireland	2,081	25.9	3.0	0.7	70.4	61.0	61.0	97.1	2.0	0.5	0.4	9.0
Scotland	5,615	34.5	3.1	1.1	61.4	60.1	60.6					
Wales	3,582	36.7	4.6	3.4	55.2	60.5	62.6	93.4	4.1	1.2	1.3	7.9
UK	74,157	36.8	5.2	2.0	56.0	60.3	61.6	72.0	14.9	9.0	4.1	3.6

Blank cells – no data returned by the centre or data completeness <70%

Breakdown by ethnicity is not shown for centres with <70% data completeness, but these centres were included in national averages

UK ethnicity distribution and completeness does not include Scotland

PRDs were grouped into categories as shown in table 3.3, with the mapping of disease codes into groups explained in more detail in appendix A. The proportion of KRT patients in each ethnic group and with each PRD is shown for patients with ethnicity and PRD data, respectively, and these total 100% of patients with data. The proportions of patients with no ethnicity and no PRD data are shown on separate lines.

Table 3.3 Demographics, primary renal diseases (PRDs) and prevalent treatment modality of adult patients prevalent to KRT on 31/12/2024 by age group

Characteristic	Age group (yrs)							Total	Median age (yrs)
	18–34	35–44	45–54	55–64	65–74	75–84	≥85		
Total									
N on KRT	5,624	8,540	13,096	19,002	15,991	10,104	1,800	74,157	60.3
% on KRT	7.6	11.5	17.7	25.6	21.6	13.6	2.4		
Sex (%)									
Male	7.4	11.4	17.4	25.7	21.5	13.9	2.6	61.6	60.5
Female	7.9	11.6	18.1	25.5	21.7	13.1	2.1	38.4	59.9
Ethnicity (%)									
White	7.4	11.1	16.7	25.6	21.5	15.0	2.7	72.4	60.9
Asian	8.8	13.1	20.1	22.2	23.8	10.2	1.7	14.7	58.5
Black	6.4	11.3	21.8	32.9	18.0	7.4	2.3	8.9	58.4
Other	10.8	15.5	20.6	25.8	17.0	8.7	1.6	4.0	56.4
Missing	7.0	10.4	15.8	24.4	24.0	16.3	2.2	8.5	62.3
PRD (%)									
Diabetes	2.8	9.0	17.1	28.3	26.5	14.1	2.2	19.0	62.6
Glomerulonephritis	9.0	14.6	20.1	26.8	18.6	9.7	1.3	19.8	57.4
Hypertension	3.6	8.9	18.9	26.4	21.6	16.8	3.7	6.7	61.7
Polycystic kidney disease	2.0	5.7	18.4	34.1	26.5	12.3	1.0	10.6	62.2
Pyelonephritis	6.9	13.4	18.0	26.6	19.4	13.1	2.6	7.4	59.3
Renal vascular disease	2.2	3.9	6.7	15.4	27.6	34.6	9.5	2.3	73.4
Other	16.4	15.4	17.3	20.8	17.5	10.9	1.8	19.9	55.5
Uncertain aetiology	6.9	11.4	16.8	22.4	21.1	17.4	4.1	14.3	61.8
Missing	8.4	10.1	14.8	23.1	22.2	17.7	3.7	4.0	62.3
Modality (%)									
ICHD	5.0	7.8	13.6	22.4	23.7	22.2	5.4	36.8	65.5
HHD	7.9	16.5	21.8	29.5	17.0	6.4	1.0	2.0	56.3
PD	7.6	10.8	14.0	21.0	21.6	21.4	3.6	5.2	63.5
Tx	9.3	13.8	20.6	28.0	20.3	7.5	0.4	56.0	57.3

Variation between centres in the proportion of patients prevalent to dialysis on 31/12/2024 and on home therapies is shown in figure 3.4 . Please visit the UKRR data portal (ukkidney.org/audit-research/data-portals) to identify individual kidney centres.

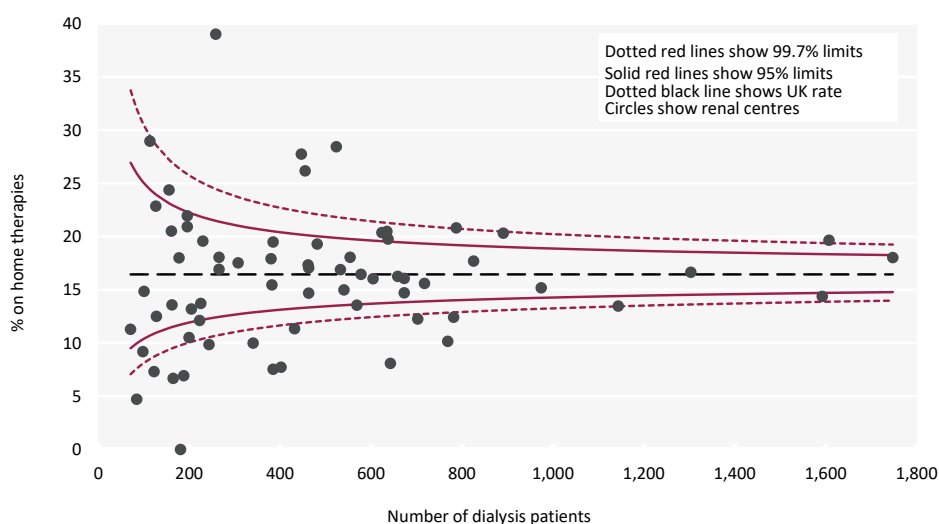


Figure 3.4 Percentage of adult patients prevalent to dialysis on 31/12/2024 on home therapies (PD and HHD) by centre

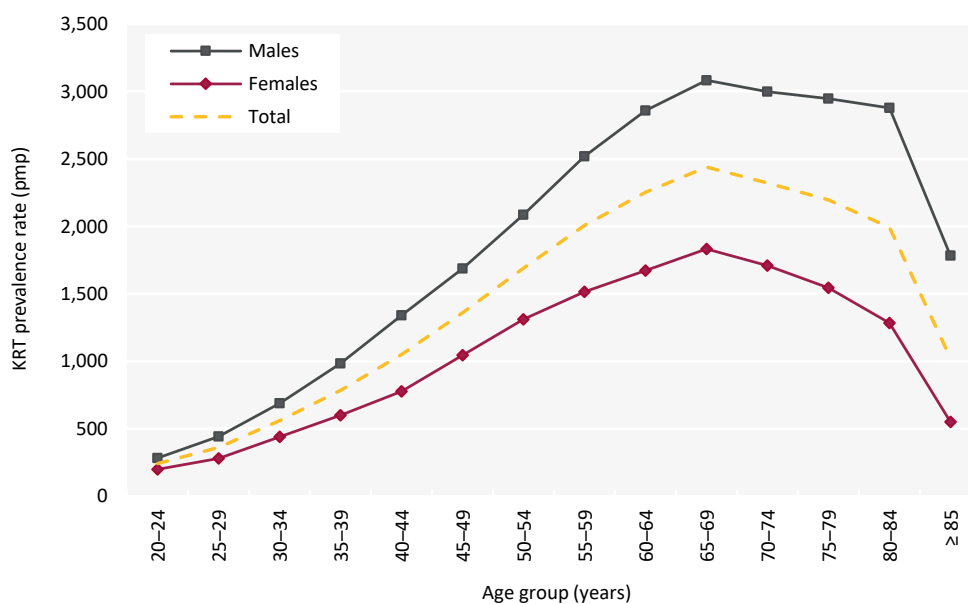


Figure 3.5 Adult KRT prevalence rates on 31/12/2024 by age group and sex
pmp – per million population

For each modality, the percentage of patients of each age (in years) is shown in figure 3.6.

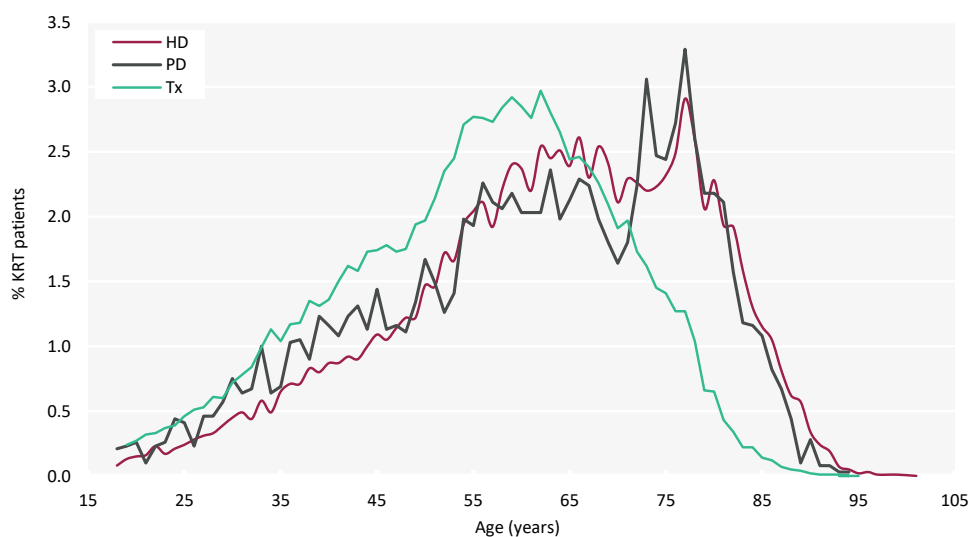


Figure 3.6 Age profile of adult patients prevalent to KRT on 31/12/2024 by KRT modality

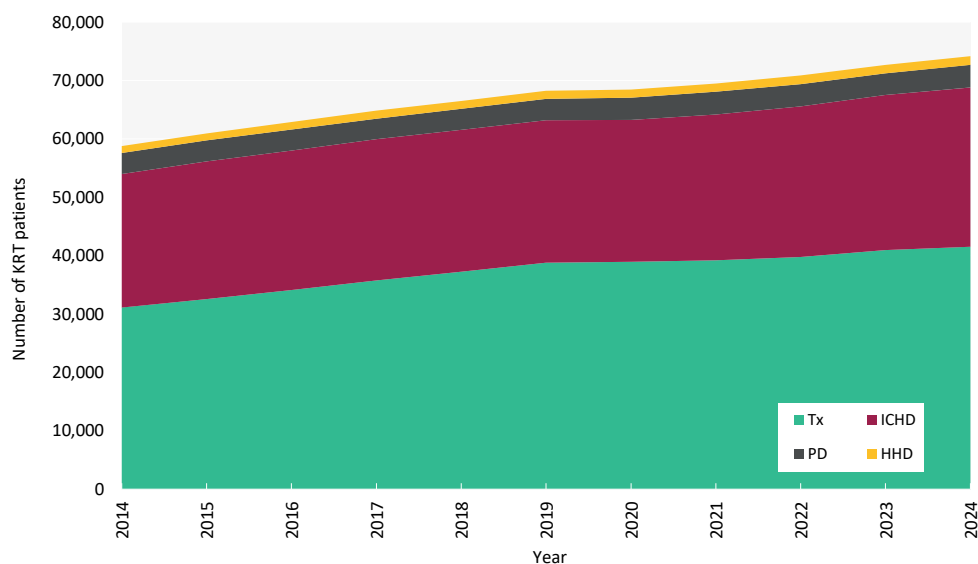


Figure 3.7 Growth in numbers of adult patients prevalent to KRT by treatment modality between 2014 and 2024

Table 3.4 Change in adult KRT prevalence rates by modality between 2020 and 2024

Year	Prevalence (pmp)					% growth in prevalence				
	HD	PD	Dialysis	Tx	KRT	HD	PD	Dialysis	Tx	KRT
2020	486	72	558	736	1,294					
2021	496	73	569	737	1,306	2.0	1.1	1.9	0.2	0.9
2022	508	71	579	741	1,320	2.4	-2.9	1.7	0.6	1.1
2023	518	68	586	755	1,341	1.9	-4.0	1.2	1.8	1.6
2024	522	71	593	755	1,348	0.9	3.8	1.3	-0.1	0.5
Average annual growth 2020-2024						1.8	-0.5	1.5	0.6	1.0

pmp – per million population

In table 3.5, for each PRD category, the proportion of patients on each treatment modality is shown for patients with PRD data and these total 100% of patients with data. The proportion of patients with no PRD data is shown on a separate line. Table 3.6 shows changes in PRDs between 2015 and 2024, in particular the increase in diabetes.

Table 3.5 Treatment modality of adult patients prevalent to KRT on 31/12/2024 by primary renal disease (PRD)

PRD	N on KRT	% KRT population	Modality (%)		
			HD	PD	Tx
Diabetes	13,534	19.0	57.0	6.4	36.6
Glomerulonephritis	14,107	19.8	26.9	4.4	68.7
Hypertension	4,784	6.7	46.7	5.4	47.9
Polycystic kidney disease	7,528	10.6	21.8	3.9	74.3
Pyelonephritis	5,296	7.4	32.1	4.3	63.5
Renal vascular disease	1,648	2.3	60.9	8.3	30.8
Other	14,145	19.9	33.9	4.1	62.0
Uncertain aetiology	10,172	14.3	40.2	6.2	53.6
Total (with data)	71,214	100.0	37.9	5.1	57.1
Missing	2,943	4.0	59.8	9.9	30.2

Table 3.6 Change in primary renal disease (PRD) of adult patients prevalent to KRT between 2015 and 2024

PRD	Year									
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Diabetes	17.5	17.7	18.1	18.5	18.7	18.8	18.9	18.8	19.0	19.0
Glomerulonephritis	19.7	19.7	19.8	19.8	19.8	19.9	19.9	19.9	19.8	19.8
Hypertension	6.4	6.3	6.4	6.4	6.5	6.5	6.5	6.5	6.6	6.7
Polycystic kidney disease	10.4	10.4	10.4	10.5	10.5	10.6	10.6	10.5	10.6	10.6
Pyelonephritis	8.8	8.7	8.5	8.3	8.1	8.0	7.8	7.7	7.6	7.4
Renal vascular disease	3.1	3.1	3.0	3.0	2.9	2.8	2.7	2.6	2.5	2.3
Other	19.5	19.6	19.7	19.8	19.7	19.8	19.9	20.1	19.9	19.9
Uncertain aetiology	14.6	14.4	14.1	13.9	13.7	13.7	13.7	13.9	14.0	14.3
Missing	0.9	1.0	1.2	1.2	1.5	1.8	2.4	2.7	2.9	4.0

The percentages in each PRD category add up to 100% in each year; the percentages with missing PRD data are shown separately

The treatment modality distribution for prevalent adult KRT patients was further divided by treatment location for HD patients – hospital unit, satellite unit or home – and for PD patients by type of PD – automated PD (APD) and continuous ambulatory PD (CAPD).

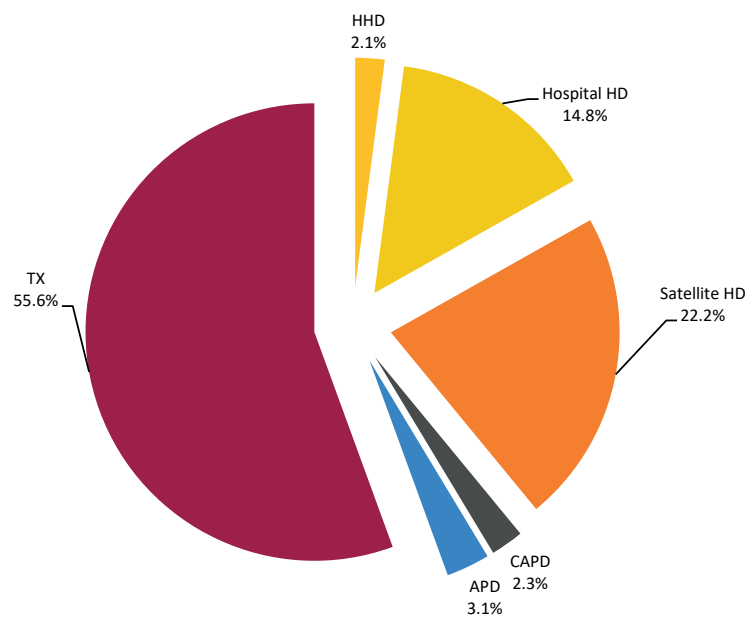


Figure 3.8 Detailed treatment modality of adult patients prevalent to KRT on 31/12/2024
 No Scottish centres were included because data on satellite HD were not available
 APD – automated PD; CAPD – continuous ambulatory PD

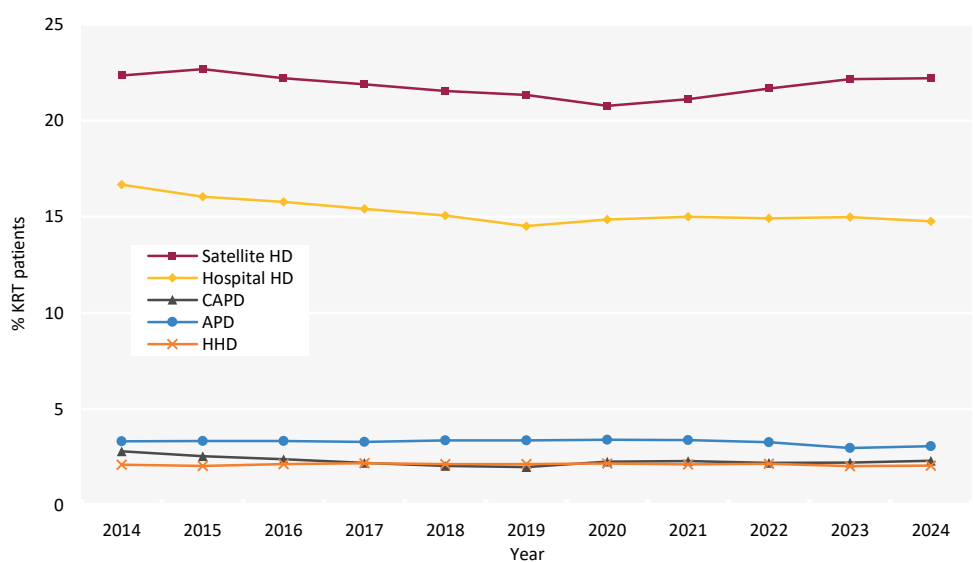


Figure 3.9 Detailed dialysis modality changes in adult patients prevalent to KRT between 2014 and 2024
 No Scottish centres were included because data on satellite HD were not available
 The denominator includes patients with a Tx
 APD – automated PD; CAPD – continuous ambulatory PD

Table 3.7 Adult patients prevalent to dialysis on 31/12/2024 by detailed dialysis modality and centre

Centre	N on dialysis	% Tx	% Tx	% on HD				% on PD		
		wait-	wait-	All HD	HHD	Hospital	Satellite	All PD	CAPD	APD
		listed	listed							
<65 yrs	≥65 yrs									
ENGLAND										
Bham	1,748	38.1	5.4	85.9	3.9	27.6	54.4	14.1	2.6	11.5
Bradfd	385	43.7	12.3	93.5	1.0	78.7	13.8	6.5	4.2	2.3
Brightn	578	35.4	2.6	88.6	5.0	38.2	45.3	11.4	10.4	1.0
Bristol	541	38.8	7.4	87.4	2.4	15.9	69.1	12.6	8.1	3.9
Camb	432	26.4	0.8	93.8	5.1	39.6	49.1	6.3	3.9	1.6
Carlisle	161	39.2	11.0	82.0	2.5	51.6	28.0	18.0	1.2	16.8
Carsh	1,144	33.3	3.9	88.7	2.2	21.6	65.0	11.3	3.9	7.3
Colchr	181	26.5	0.9	100.0	0.0	65.8	34.3	0.0	0.0	0.0
Covnt	482	46.7	13.7	85.3	4.6	28.8	51.9	14.7	4.8	10.0
Derby	447	39.0	6.3	85.5	13.2	64.9	7.4	14.5	12.1	2.2
Donc	223	39.0	8.1	92.4	4.5	60.5	27.4	7.6	0.9	6.7
Dorset	382	41.3	9.0	88.2	3.7	22.3	62.3	11.8	5.5	6.0
Dudley	230	39.4	9.2	84.4	3.9	21.3	59.1	15.7	7.8	7.8
EssexMS	624	32.2	5.2	81.6	1.9	72.8	6.9	18.4	3.2	14.9
Exeter	605	39.7	4.0	87.3	3.3	32.6	51.4	12.7	4.0	8.8
Glouc	266	39.8	11.1	83.8	0.8	72.9	10.2	16.2	3.0	13.2
Hull	463	24.2	5.1	86.6	3.7	39.5	43.4	13.4	11.0	2.4
Ipswi	165	25.4	0.9	93.3	0.0	87.3	6.1	6.7	3.6	1.2
Kent	569	29.3	4.2	90.7	4.2	30.1	56.4	9.3	7.2	2.1
L Barts	1,608	39.6	5.7	83.8	3.5	37.9	42.4	16.2	7.0	9.2
L Guys	769	30.5	3.3	94.2	4.3	13.7	76.2	5.9	1.4	4.4
L Kings	826	27.3	4.3	87.2	4.8	20.1	62.2	12.8	2.8	10.1
L Rfree	975	33.1	9.7	86.3	1.4	4.5	80.3	13.7	5.2	8.5
L St.G	380	42.7	6.4	84.0	1.8	20.3	61.8	16.1	3.4	12.4
L West	1,593	51.4	13.5	88.5	2.8	21.6	64.0	11.6	10.9	0.7
Leeds	782	42.6	19.6	90.8	3.2	15.5	72.1	9.2	2.3	6.9
Leic	1,304	41.3	10.3	86.3	2.9	1.2	82.1	13.7	3.8	10.0
Liv UH	673	29.7	5.7	92.9	8.9	22.3	61.7	7.1	1.2	5.9
M RI	788	27.5	9.6	87.7	8.5	16.9	62.3	12.3	5.0	7.4
Middlbr	402	35.0	8.7	96.8	4.5	35.3	57.0	3.2	3.2	0.0
Newc	462	42.6	12.6	88.1	5.4	56.5	26.2	11.9	1.7	10.2
Norwch	385	18.8	3.8	84.2	3.6	15.8	64.7	15.8	9.9	6.0
Nottm	524	29.4	7.2	77.1	5.5	29.2	42.4	22.9	21.0	1.9
Oxford	635	47.8	17.3	83.6	4.1	34.2	45.4	16.4	5.8	10.6
Plymth	196	39.5	12.7	80.6	2.6	76.5	1.5	19.4	4.6	14.8
Ports	891	38.7	11.5	88.7	9.0	27.4	52.3	11.3	6.5	4.8
Prestn	659	44.1	11.1	90.7	7.0	16.8	66.9	9.3	5.8	3.5
Redng	463	46.8	5.2	89.6	4.3	35.0	50.3	10.4	8.6	1.7
Salford	638	44.9	19.4	85.6	5.3	27.4	52.8	14.4	6.6	7.8
Sheff	718	34.6	9.1	90.3	5.9	49.4	35.0	9.8	3.2	6.6
Shrew	259	32.5	7.7	75.3	14.3	61.0	0.0	24.7	5.8	18.9
Stevng	703	37.3	6.7	94.6	6.8	22.2	65.6	5.4	1.7	3.7
Stoke	455	33.5	7.9	80.9	7.0	51.4	22.4	19.1	5.9	13.2
Sund	308	38.0	9.6	85.7	3.3	46.1	36.4	14.3	3.3	11.0
Truro	205	34.9	9.8	92.2	5.4	42.9	43.9	7.8	3.9	3.9
Wirral	200	36.6	11.1	93.5	4.0	36.0	53.5	6.5	0.5	6.0
Wolve	554	27.5	3.5	89.0	7.0	81.6	0.4	11.0	2.4	8.7
York	266	43.0	15.7	88.4	6.4	33.1	48.9	11.7	6.0	5.6
N IRELAND ¹										
Antrim	128	18.2	2.4	88.3	0.8	87.5	0.0	11.7	3.1	7.8
Belfast	178	22.6	4.3	86.5	4.5	82.0	0.0	13.5	0.0	11.8
Newry	101	25.7		87.1	2.0	85.2	0.0	12.9	2.0	5.0

Table 3.7 Continued

Centre	N on dialysis	% Tx wait-listed <65 yrs	% Tx wait-listed ≥65 yrs	% on HD				% on PD		
				All HD	HHD	Hospital	Satellite	All PD	CAPD	APD
Ulster	85	32.0	3.3	95.3	0.0	95.3	0.0	4.7	0.0	3.5
West NI	123	23.2	1.5	95.1	2.4	92.7	0.0	4.9	0.0	1.6
SCOTLAND ²										
Abrdn	244	34.7	12.5	93.0	2.9	90.2	0.0	7.0	1.6	4.1
Airdrie	226	45.9	23.1	86.3	0.0	86.3	0.0	13.7	6.2	7.5
D&Gall	71	44.1	5.4	90.1	1.4	88.7	0.0	9.9	0.0	9.9
Dundee	162	45.2	6.7	87.7	1.2	86.4	0.0	12.4	4.9	6.2
Edinb	341	41.1	11.5	93.0	2.9	90.0	0.0	7.0	2.6	4.4
Glasgw	643	51.4	17.2	94.9	3.0	91.9	0.0	5.1	1.6	3.6
Inverns	98	33.3	10.2	94.9	4.1	90.8	0.0	5.1	3.1	2.0
Klmarnk	196	39.3	11.2	86.7	7.7	79.1	0.0	13.3	3.1	10.2
Krkldy	188	31.8	9.0	94.2	1.1	93.1	0.0	5.9	0.0	5.9
WALES										
Bangor	114	32.7	4.8	88.6	17.5	53.5	17.5	11.4	7.0	4.4
Cardff	673	28.8	4.2	91.4	6.1	19.5	65.8	8.6	3.3	5.4
Clwyd	127	25.9	2.9	85.8	8.7	77.2	0.0	14.2	8.7	5.5
Swanse	533	30.6	6.0	91.0	7.9	50.3	32.8	9.0	5.1	3.9
Wrexm	156	28.2	5.1	81.4	5.8	50.0	25.6	18.6	0.0	18.6
TOTALS										
England	28,247	37.2	8.2	87.7	4.5	31.7	51.5	12.4	5.4	7.0
N Ireland	615	23.4	2.4	89.9	2.3	87.6	0.0	10.1	1.0	6.7
Scotland	2,169	43.0	13.6	92.0	2.8	89.2	0.0	8.0	2.5	5.3
Wales	1,603	29.4	4.8	89.6	7.7	39.7	42.3	10.4	4.2	6.1
UK	32,634	37.0	8.3	88.1	4.5	36.9	46.6	11.9	5.0	6.8

Blank cells – no data returned by the centre

¹There were no satellite units in Northern Ireland

²All HD patients in Scotland were shown as receiving treatment at home or in hospital because no data were available regarding satellite dialysis

APD – automated PD; CAPD – continuous ambulatory PD

Transplant waiting list data were provided by NHSBT

The proportion of patients on HHD versus satellite HD is shown in figure 3.10, with the remaining patients on hospital HD.

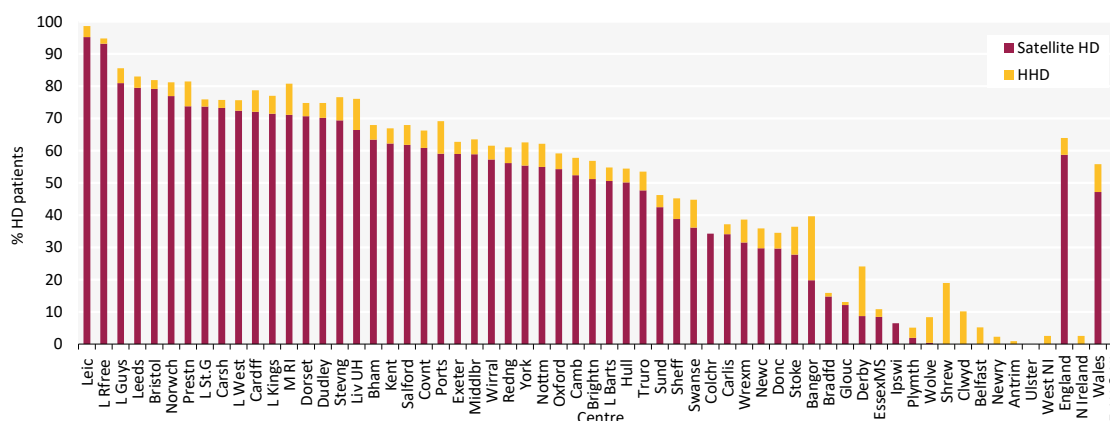


Figure 3.10 Adult patients prevalent to HD on 31/12/2024 treated with satellite HD or HHD by centre

There were no satellite units in Northern Ireland and Scottish centres were excluded because data on satellite HD were not available

Dialysis access in prevalent adult dialysis patients

The type of dialysis access used by the prevalent dialysis population is described in chapter 5.

Survival in adult dialysis patients

Survival was analysed in prevalent patients receiving dialysis on 31/12/2023 and followed-up for one year in 2024. Survival in patients with a Tx is presented in chapter 4.

Survival analyses, where stated, were adjusted to age 60 years to allow comparisons between centres with different age distributions. Centre-specific survival rates were further adjusted for not only age (figure 3.11), but also sex and comorbidities for centres with at least 85% completeness (figure 3.12). UKRR comorbidity data were augmented using diagnostic and procedure codes from Hospital Episode Statistics (HES) in England and Patient Episode Database for Wales (PEDW) in Wales (see appendix A for details). Centres are identifiable from the x-axis by using the number of prevalent dialysis patients by centre in table 3.8.

Table 3.8 1 year adjusted survival (age and case-mix) of adult patients prevalent to dialysis on 31/12/2023 by centre

Centre	Age-adjusted survival				Case-mix adjusted survival ¹			
	N on dialysis	1 yr (%)	Lower 95% limit	Upper 95% limit	N on dialysis	1 yr (%)	Lower 95% limit	Upper 95% limit
D&Gall	54	89.5	75.8	94.0				
Newry	89	89.3	78.9	92.9	74	86.5	79.7	94.4
Bangor	100	89.9	79.5	92.7	99	90.4	81.3	93.9
Inverns	104	85.8	79.7	92.6				
Clwyd	121	82.8	80.4	92.3	121	83.6	82.2	93.5
Carlisle	124	83.4	80.5	92.3	121	83.4	82.2	93.5
West NI	130	89.3	80.7	92.2	114	84.1	81.9	93.6
Wrexham	139	89.3	80.9	92.1	139	89.9	82.7	93.3
Ipswich	152	90.1	81.3	91.9	145	90.6	82.9	93.2
Colchester	158	90.8	81.4	91.8	153	92.4	83.1	93.1
Dundee	160	87.9	81.5	91.8				
Kirkcaldy	172	90.4	81.7	91.7				
Wirral	180	85.5	81.9	91.6	180	87.9	83.6	92.9
Plymouth	180	86.5	81.9	91.6	177	88.2	83.6	92.9
Kilmarnock	185	83.0	81.9	91.6				
Truro	198	85.3	82.2	91.5	191	87.9	83.8	92.8
Aberdeen	221	88.4	82.5	91.3				
Doncaster	225	88.0	82.5	91.2	223	88.8	84.3	92.6
Gloucester	229	85.4	82.6	91.2	223	86.7	84.3	92.6
Airdrie	230	79.9	82.6	91.2				
Dudley	234	85.7	82.6	91.2	234	87.2	84.4	92.5
York	241	92.1	82.7	91.1	241	92.5	84.5	92.4
Shrewsbury	260	85.0	82.9	91.0	257	86.8	84.7	92.4
Sunderland	269	90.6	83.0	91.0	268	91.9	84.8	92.3
Edinburgh	341	90.7	83.6	90.6				
Norwich	361	86.0	83.7	90.6	354	86.9	85.4	91.9
Bradford	364	88.9	83.7	90.5	364	90.4	85.5	91.9
Dorset	364	88.9	83.7	90.5	364	89.8	85.5	91.9
L. St.G.	365	87.7	83.7	90.5	360	89.6	85.4	91.9
Middlesbrough	374	86.3	83.8	90.5	373	88.2	85.5	91.9
Derby	392	90.0	83.9	90.5	389	91.1	85.6	91.8
Cambwell	401	88.6	83.9	90.4	397	89.0	85.6	91.8
Redding	418	88.3	84.0	90.4	416	89.9	85.7	91.7
Hull	428	87.0	84.0	90.3	428	87.6	85.8	91.7
Newcastle	438	83.0	84.1	90.3	438	85.9	85.8	91.7
Stoke	442	88.4	84.1	90.3	436	90.0	85.8	91.7
Covington	442	86.5	84.1	90.3	430	87.3	85.8	91.7
Swansea	475	84.2	84.2	90.2	476	86.2	86.0	91.6
Nottm.	476	87.1	84.2	90.2	476	89.0	86.0	91.6
Wolverhampton	493	89.2	84.3	90.2	491	90.4	86.0	91.6
Brighton	512	87.9	84.4	90.1	506	89.2	86.1	91.5
Bristol	513	85.9	84.4	90.1	499	88.3	86.0	91.5
Kent	522	85.4	84.4	90.1	522	87.1	86.1	91.5
Exeter	546	89.1	84.5	90.0				
EssexMS	566	89.1	84.5	90.0	560	90.1	86.2	91.4
Oxford	569	85.0	84.6	90.0	560	87.4	86.2	91.4
Salford	597	85.7	84.6	89.9	591	88.4	86.3	91.4
Preston	605	85.1	84.7	89.9	603	87.9	86.3	91.3
Glasgow	607	84.5	84.7	89.9				
Liverpool UH	622	86.7	84.7	89.9	613	89.4	86.4	91.3
Stevning	654	88.2	84.8	89.9	641	89.9	86.4	91.3
Cardiff	660	83.8	84.8	89.8	658	84.9	86.5	91.3
Leeds	678	87.7	84.8	89.8	676	89.5	86.5	91.2
Sheffield	679	88.4	84.8	89.8	678	89.2	86.5	91.2

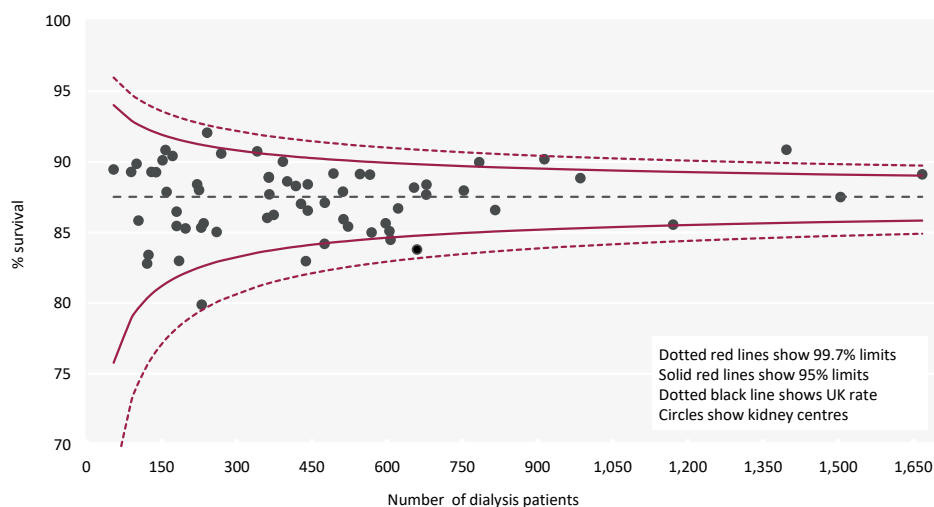
Table 3.8 Continued

Centre	Age-adjusted survival				Case-mix adjusted survival ¹			
	N on dialysis	1 yr (%)	Lower 95% limit	Upper 95% limit	N on dialysis	1 yr (%)	Lower 95% limit	Upper 95% limit
L Guys	753	88.0	85.0	89.7	751	89.3	86.7	91.1
L Kings	784	90.0	85.0	89.7	759	91.4	86.7	91.1
Ports	816	86.6	85.1	89.6	794	89.0	86.7	91.1
L Rfree	914	90.2	85.2	89.5	886	91.9	86.9	91.0
Carsh	986	88.9	85.3	89.5	949	89.8	86.9	90.9
Leic	1,171	85.6	85.5	89.3	1,160	87.2	87.2	90.8
L Barts	1,397	90.9	85.7	89.2	1,352	92.2	87.3	90.6
L West	1,505	87.5	85.8	89.1	1,449	89.2	87.4	90.6
Bham	1,668	89.1	85.9	89.0	1,638	90.6	87.5	90.5

Centres are ordered by increasing number of patients

¹Centres excluded if comorbidity data <85% - all Scottish kidney centres, Exeter, M RI, Belfast, Antrim, Ulster

For information on data quality issues for these centres, see Appendix A, section 2.2

**Figure 3.11** 1 year survival (adjusted to age 60 years) of adult patients prevalent to dialysis on 31/12/2023 by centre

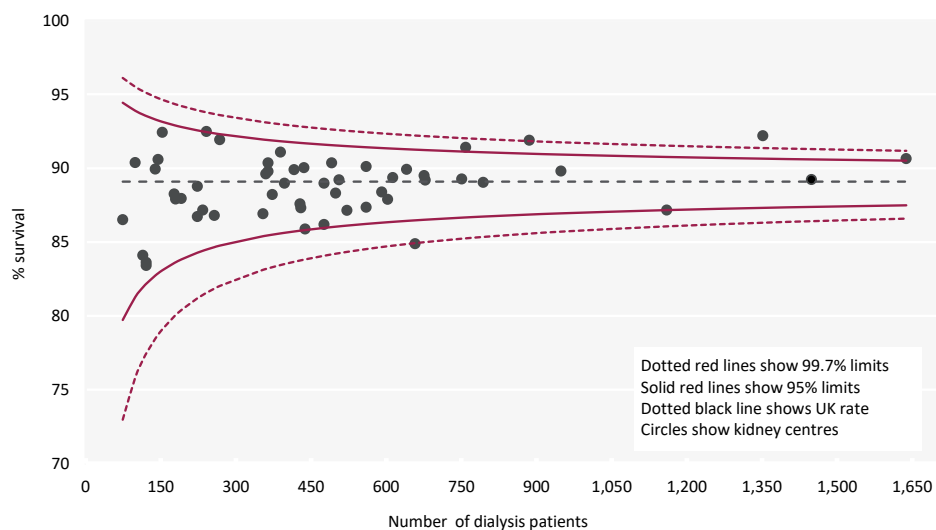


Figure 3.12 1 year survival (adjusted to 60 years, male and median comorbidity score) of adult patients prevalent to dialysis on 31/12/2023 by centre

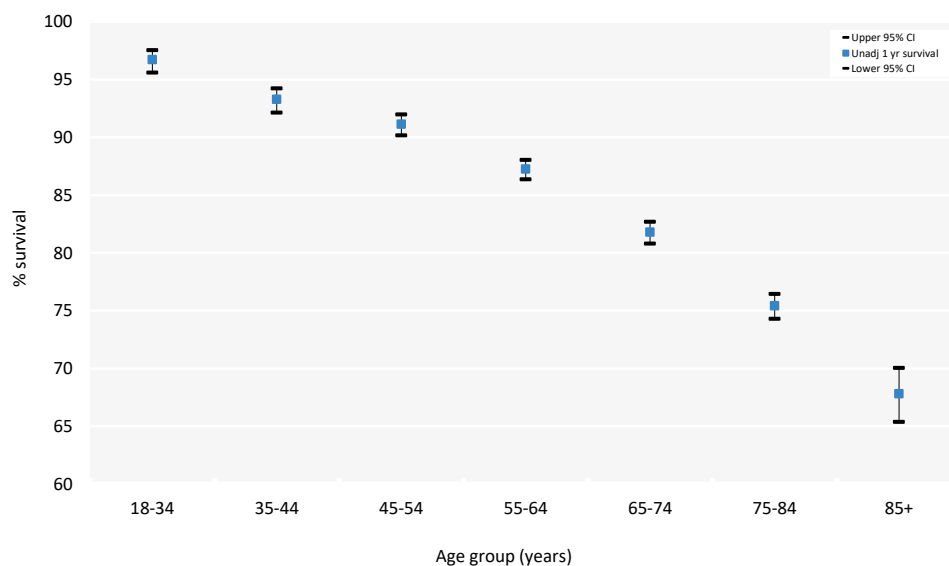


Figure 3.13 1 year survival (unadjusted) of adult patients prevalent to dialysis on 31/12/2023 by age group
CI – confidence interval

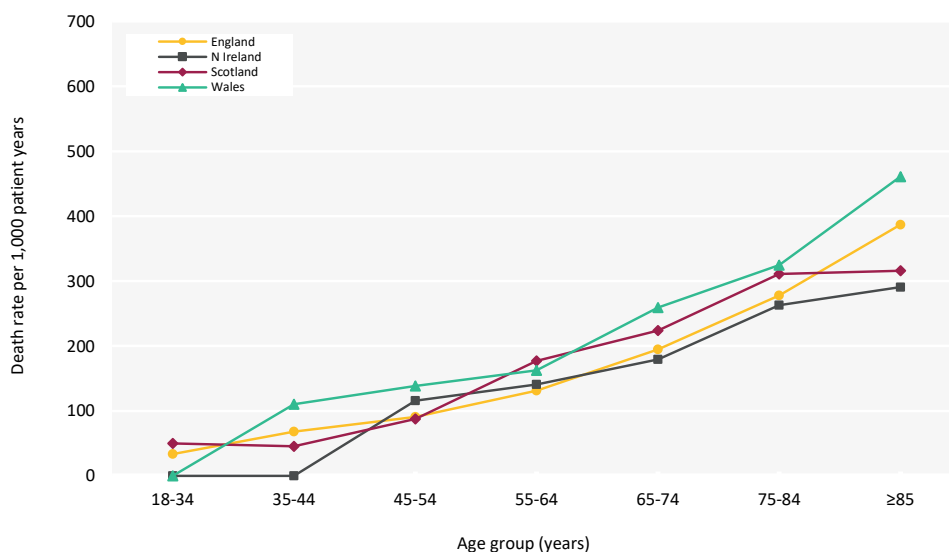


Figure 3.14 1 year death rate per 1,000 patient years for adult patients prevalent to dialysis on 31/12/2023 by country and age group

The serial one year death rate in prevalent adult dialysis patients by country is shown in figure 3.15, adjusted to age 60 years.

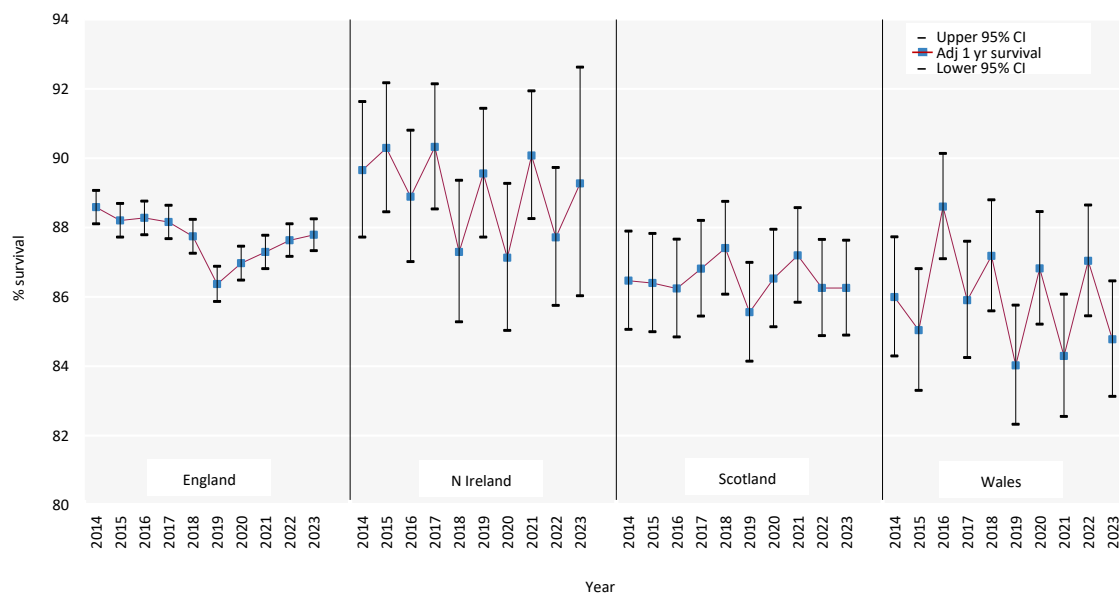


Figure 3.15 1 year survival (adjusted to age 60 years) for adult patients prevalent to dialysis by country between 2014 and 2023

CI – confidence interval

The relative risk of death by age group for prevalent KRT patients compared to the general population's risk of death, calculated using Office for National Statistics UK population and deaths data, is shown in table 3.9.

Table 3.9 Death rate by age group for adult patients prevalent to KRT on 31/12/2022 followed-up for 1 year compared with the general population and with previous analyses in the 1998–2001 cohort

Age group (yrs)	UK population mid-2024 (thousands)	UK deaths in 2024	Death rate per 1,000 population	Expected number of deaths in UKRR population	UKRR deaths in 2024	UKRR death rate per 1,000 prevalent KRT patients	Relative risk of death in 2024	Relative risk of death 1998–2001 cohort
20-24	4,166	1,553	0.4	0	7	7	19.5	41.1
25-29	4,549	2,034	0.4	1	17	11	23.9	41.8
30-34	4,797	3,101	0.6	2	46	18	28.2	31.2
35-39	4,776	4,740	1.0	4	87	24	24.5	26.0
40-44	4,529	6,829	1.5	7	118	26	17.5	22.6
45-49	4,093	9,142	2.2	12	172	33	14.8	19.0
50-54	4,420	15,331	3.5	25	335	46	13.3	12.8
55-59	4,617	23,580	5.1	44	531	62	12.2	10.1
60-64	4,288	32,084	7.5	65	621	72	9.6	10.4
65-69	3,573	42,488	11.9	91	782	102	8.6	7.9
70-74	3,097	59,253	19.1	125	937	144	7.5	7.2
75-79	2,902	90,047	31.0	171	1,088	197	6.3	5.3
80-84	1,840	102,894	55.9	167	831	279	5.0	4.0
≥85	1,750	250,971	143.4	210	546	373	2.6	3.0
Total	53,397	644,047	12.1	922	6,118	91	6.6	7.7

Cause of death in adult KRT patients

Cause of death was analysed in prevalent patients receiving KRT on 31/12/2023 and followed-up for one year in 2024. The proportion of KRT patients with each cause of death is shown for patients with cause of death data and these total 100% of patients with data. The proportion of patients with no cause of death data is shown on a separate line. Where the cause of death was missing in the UKRR data, cause of death from Civil Registration records was used.

Table 3.10 Cause of death in adult patients prevalent to KRT on 31/12/2023 followed-up in 2024 by age group

Cause of death	KRT all ages		KRT <65 yrs		KRT ≥65 yrs	
	N	%	N	%	N	%
Cardiac disease	1,076	19.9	408	24.2	668	18.0
Cerebrovascular disease	193	3.6	56	3.3	137	3.7
Infection	921	17.1	270	16.0	651	17.6
Malignancy	499	9.3	149	8.8	350	9.4
Treatment withdrawal	414	7.7	78	4.6	336	9.1
Other	1,859	34.5	588	34.9	1,271	34.3
Uncertain aetiology	434	8.0	137	8.1	297	8.0
Total (with data)	5,396	100.0	1,686	100.0	3,710	100.0
Missing	680	11.2	236	12.3	444	10.7

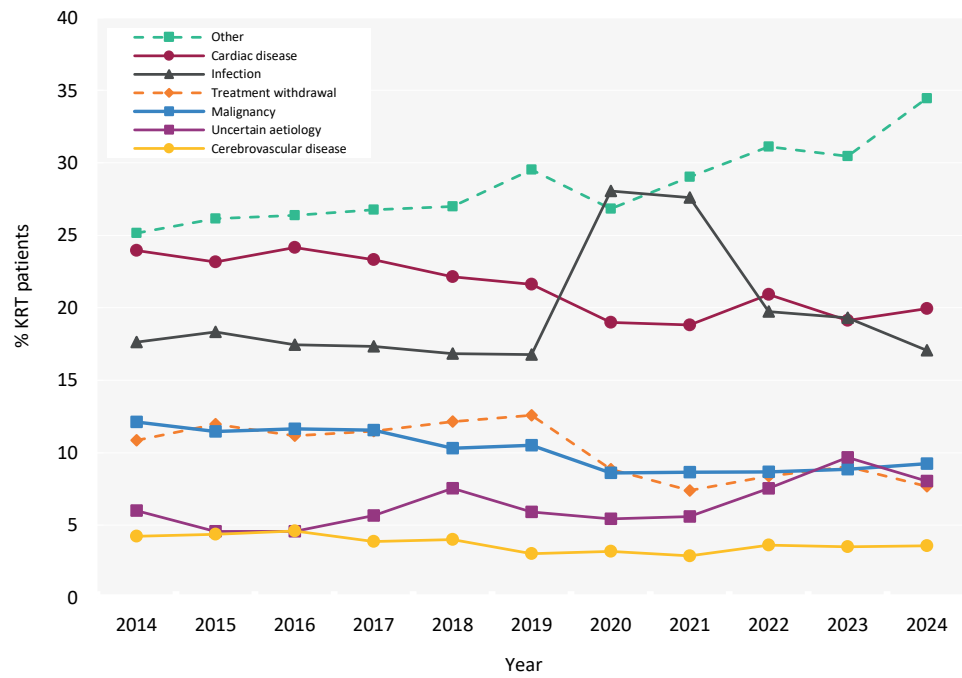


Figure 3.16 Cause of death between 2014 and 2024 for adult patients prevalent to KRT at the beginning of the year