

Chapter 7

Adults on home haemodialysis (HHD) in the UK at the end of 2024

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Introduction

This chapter describes the population of adult patients with end-stage kidney disease (ESKD) who were receiving regular home haemodialysis (HHD) in the UK at the end of 2024 (figure 7.1). This population comprises patients who were on HHD at the end of 2023 and remained on HHD throughout 2024, as well as patients who commenced/re-commenced HHD in 2024. This latter group includes both incident kidney replacement therapy (KRT) patients who ended 2024 on HHD and prevalent KRT patients who switched to HHD from in-centre haemodialysis (ICHHD), peritoneal dialysis (PD), or a transplant (Tx) in 2024. Consequently, the cohort of patients receiving HHD in a centre not only reflects differences in underlying population case-mix, but also differences in the rates of acceptance onto KRT, survival on HHD, transplantation and other dialysis therapies (ICHHD and PD), and the care of patients on those other modalities, as described in other chapters of this report.

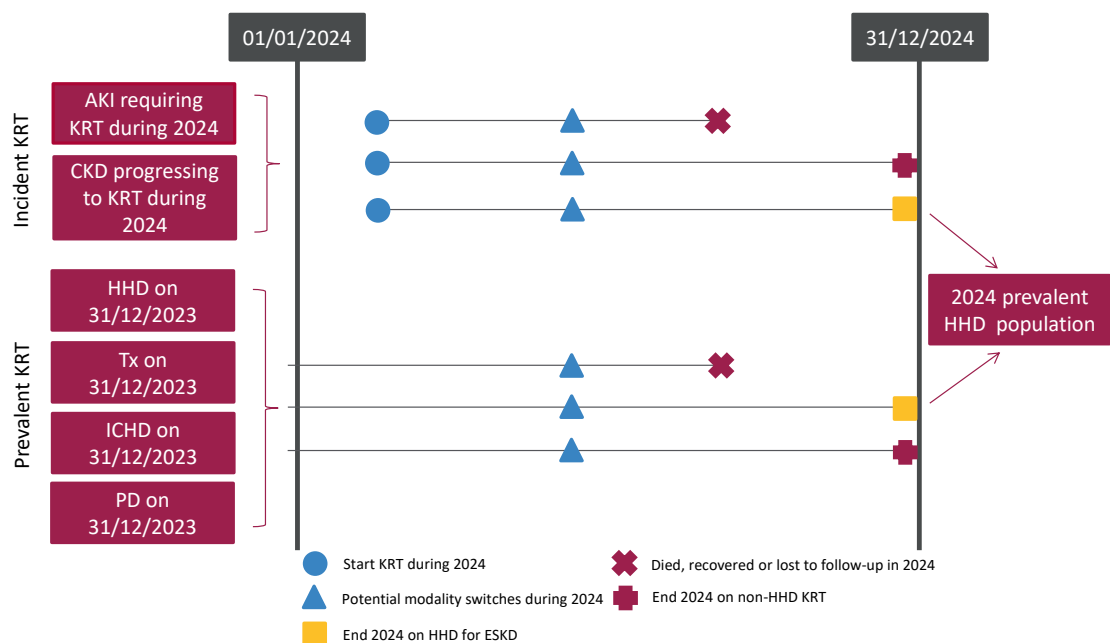


Figure 7.1 Pathways adult patients could follow to be included in the UK 2024 prevalent HHD population

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 HHD at the end of 2024 or if they had been on KRT for ≥ 90 days and were on HHD at the end of 2024
CKD – chronic kidney disease

Where possible, the chapter addresses key aspects of the care of patients on HHD for which there are UK Kidney Association guidelines (table 7.1). This includes complications associated with ESKD and HHD, for example anaemia and mineral bone disorders.

Data on infections associated with haemodialysis (HD) are available through the UK Renal Registry (UKRR) data portal (ukkidney.org/audit-research/data-portals).

Rationale for analyses

The analyses begin with a description of the 2024 prevalent adult HHD population, including the number on HHD per million population (pmp).

The UK Kidney Association guidelines (ukkidney.org/health-professionals/guidelines/guidelines-commentaries) provide audit measures relevant to the care of patients on HHD, and the guidelines available during 2024 were used for this audit. Where data permit, attainment of these measures by UK kidney centres in 2024 is reported in this chapter (table 7.1). Audit measures in guidelines that have been archived are not included. Some audit measures – for example, the target for glycated haemoglobin (HbA1c) in those on hypoglycaemia-inducing treatment – cannot be reported because the completeness of the required data items is too low. Further detail about the completeness of data returned to the UKRR is available through the UKRR data portal (ukkidney.org/audit-research/data-portals). Audit measures that cannot be reported because the required data items were not collected by the UKRR are omitted.

Table 7.1 The UK Kidney Association audit measures relevant to HHD that are reported in this chapter

The UK Kidney Association guideline	Audit criteria	Related analysis/analyses
CKD mineral bone disorder (2018)	Percentage of patients with serum calcium above the normal reference range of 2.2–2.5 mmol/L	Table 7.5, figure 7.3
HD (2019)	Proportion of patients with pre-dialysis bicarbonate 18–26 mmol/L	Table 7.6, figure 7.4
	Proportion of patients with pre-dialysis potassium 4.0–6.0 mmol/L	Table 7.6, figure 7.5
Anaemia (2020)	Proportion of patients who are not iron replete with a serum ferritin <200 µg/L	Table 7.7
	Proportion of patients with haemoglobin 100–120 g/L	
Commentary on the NICE Guideline on Renal Replacement Therapy and Conservative Management (2020)	Number of patients withdrawing from HHD as a proportion of all deaths on HHD	Table 7.8, figure 7.10

For definitions and methods relating to this chapter see appendix A. Centres were excluded from caterpillar plots and cells were blanked in tables where data completeness for a biochemical variable was <70% and/or the number of patients reported was <10. The number preceding the centre name in each caterpillar plot indicates the percentage of missing data for that centre.

Key findings

- 1,477 adult patients were receiving HHD for ESKD in the UK on 31/12/2024, compared to 1,456 on 31/12/2023, which represented 2.0% of the KRT population.
- The median age of HHD patients was 56.3 years and 61.7% were male.
- The median adjusted calcium for HHD patients was 2.4 mmol/L and 11.1% were above the target range 2.2–2.5 mmol/L.
- The median pre-dialysis bicarbonate for HHD patients was 23 mmol/L and 80.5% were within the target range 18–26 mmol/L.
- The median pre-dialysis potassium for HHD patients was 5.0 mmol/L and 80.9% were within the target range 4.0–6.0 mmol/L.
- The median ferritin for HHD patients was 383 µg/L and 23.6% had a ferritin <200 µg/L.
- The median haemoglobin for HHD patients was 109 g/L and 26.4% had a haemoglobin <100 g/L.
- Cause of death records from Civil Registration were used where cause of death was missing in the UKRR data. This resulted in improved completeness and changes in proportions of the causes of death. The leading cause of death for patients on HHD was cardiac disease (34.5%) in younger patients (<65 years) and (19.6%) in patients ≥ 65 years.

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 HHD population

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

Table 7.2 Number of adult patients prevalent to HHD and proportion of adult KRT patients on HHD by year and by centre; number of HHD patients as a proportion of the catchment population

Centre	N on HHD					% on HHD					Estimated catchment population (millions)	2024 crude rate (pmp)
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024		
ENGLAND												
Bham	76	71	67	63	68	2.3	2.1	2.0	1.8	2.0	2.13	32
Bradfd	6	7	9	6	4	0.8	1.0	1.2	0.7	0.5	0.52	8
Brightn	31	30	35	34	29	2.9	2.7	3.2	3.0	2.5	1.10	26
Bristol	17	18	15	9	13	1.2	1.2	1.0	0.6	0.9	1.29	10
Camb	26	24	23	20	22	1.7	1.5	1.4	1.2	1.3	1.00	22
Carlisle	2	3	6	7	4	0.7	1.0	2.0	2.3	1.2	0.26	15
Carsh	28	28	26	23	25	1.5	1.5	1.3	1.2	1.2	1.71	15
Colchr	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.30	0
Covnt	20	21	18	15	22	1.8	1.9	1.6	1.3	1.9	0.82	27
Derby	63	55	62	60	59	9.3	8.0	8.6	8.2	7.6	0.59	101
Donc	5	5	9	9	10	1.5	1.5	2.4	2.3	2.6	0.39	26
Dorset	16	14	14	14	14	2.0	1.8	1.8	1.7	1.7	0.76	18
Dudley	9	10	14	11	9	2.4	2.5	3.7	3.0	2.5	0.36	25
EssexMS	29	21	23	18	12	3.3	2.3	2.6	1.8	1.2	1.03	12
Exeter	24	23	22	20	20	2.2	2.1	2.0	1.8	1.7	1.00	20
Glouc	4	4	2	3	2	0.8	0.7	0.4	0.5	0.3	0.53	4
Hull	7	12	17	17	17	0.8	1.3	1.8	1.8	1.8	0.82	21
Ipswi	3	2	0	0	0	0.7	0.5	0.0	0.0	0.0	0.32	0
Kent	18	18	21	20	24	1.6	1.5	1.7	1.6	1.9	1.10	22
L Barts	25	25	47	54	56	0.9	0.9	1.7	1.8	1.8	1.64	34
L Guys	48	41	37	38	33	2.1	1.8	1.6	1.7	1.4	1.02	32
L Kings	22	34	39	33	40	1.8	2.6	2.8	2.3	2.7	0.96	42
L Rfree	10	10	9	6	14	0.4	0.4	0.4	0.2	0.6	1.29	11
L St.G	6	6	5	5	7	0.7	0.7	0.6	0.6	0.8	0.68	10
L West	35	36	39	47	45	1.0	1.0	1.1	1.3	1.2	2.06	22
Leeds	22	16	22	26	25	1.3	0.9	1.2	1.4	1.3	1.43	18
Leic	50	48	48	43	38	1.9	1.8	1.8	1.5	1.3	2.21	17
Liv UH	60	57	56	63	60	4.2	3.9	3.8	4.2	3.9	1.29	47
M RI	71	84	82	86	67	3.6	4.1	3.9	3.8	3.1	1.39	48
Middlbr	18	17	20	16	18	1.9	1.8	2.1	1.6	1.8	0.83	22
Newc	15	18	19	21	25	1.3	1.5	1.5	1.6	2.0	0.97	26
Norwch	13	10	11	10	14	1.6	1.3	1.4	1.2	1.8	0.72	20
Nottm	32	28	30	30	29	2.6	2.3	2.5	2.5	2.3	0.95	31
Oxford	17	19	26	24	26	0.8	0.9	1.3	1.1	1.2	1.56	17
Plymth	4	3	3	5	5	0.7	0.6	0.6	0.9	0.9	0.42	12
Ports	83	85	78	77	80	4.4	4.4	3.9	3.8	3.9	1.81	44
Prestn	47	42	40	39	46	3.4	3.1	2.9	2.7	3.0	1.29	36
Redng	8	9	14	17	20	0.9	1.0	1.5	1.7	1.9	0.75	27
Salford	40	31	31	32	34	3.2	2.5	2.4	2.3	2.4	1.21	28
Sheff	61	56	54	44	42	4.1	3.7	3.6	3.0	2.8	1.14	37
Shrew	36	37	41	44	37	8.4	8.4	9.2	9.5	8.2	0.43	86

Table 7.2 Continued

Centre	N on HHD					% on HHD					Estimated catchment population (millions)	2024 crude rate (pmp)
	2020	2021	2022	2023	2024	2020	2021	2022	2023	2024		
Stevng	32	41	36	45	48	3.3	4.0	3.4	4.0	4.2	1.17	41
Stoke	39	39	27	35	32	4.8	4.6	3.0	3.8	3.5	0.76	42
Sund	9	10	11	15	10	1.6	1.8	1.9	2.5	1.6	0.55	18
Truro	4	5	3	9	11	0.9	1.1	0.6	1.9	2.4	0.37	30
Wirral	7	6	6	4	8	1.7	1.4	1.5	1.0	1.9	0.49	16
Wolve	31	38	43	43	39	4.7	5.5	5.9	5.4	4.7	0.56	69
York	18	17	22	18	17	3.1	2.9	3.6	3.0	2.8	0.50	34
N IRELAND												
Antrim	4	2	1	1	1	1.4	0.7	0.3	0.3	0.3	0.25	4
Belfast	10	8	7	8	8	1.1	0.9	0.8	0.9	0.9	0.54	15
Newry	4	3	3	2	2	1.5	1.1	1.1	0.7	0.7	0.24	8
Ulster	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.21	0
West NI	2	2	1	2	3	0.6	0.6	0.3	0.6	0.8	0.25	12
SCOTLAND												
Abrdn	2	2	3	3	7	0.4	0.3	0.5	0.5	1.1	0.50	14
Airdrie	0	0	0	0	0	0.0	0.0	0.0	0.0	0.0	0.47	0
D&Gall	1	1	1	1	1	0.6	0.6	0.7	0.7	0.6	0.12	8
Dundee	6	6	5	4	2	1.4	1.5	1.3	1.0	0.6	0.37	5
Edinb	3	7	9	8	10	0.3	0.8	0.9	0.8	1.0	0.86	12
Glasgw	11	10	11	15	19	0.6	0.5	0.6	0.8	1.0	1.40	14
Inverns	3	2	3	1	4	1.1	0.7	1.1	0.3	1.4	0.23	18
Klmarnk	14	16	12	13	15	3.8	4.4	3.2	3.4	3.9	0.29	51
Krkldy	3	2	3	2	2	1.0	0.7	1.1	0.7	0.7	0.28	7
WALES												
Bangor	13	21	22	22	20	6.0	9.7	10.0	10.1	8.8	0.16	125
Cardff	34	51	49	44	41	2.0	3.0	2.8	2.4	2.2	1.18	35
Clwyd	6	5	10	9	11	2.9	2.5	4.9	4.0	5.0	0.18	60
Swanse	44	40	39	35	42	5.2	4.7	4.6	3.9	4.4	0.76	55
Wrexm	7	3	3	8	9	2.2	1.0	1.0	2.5	2.7	0.21	42
TOTALS												
England	1247	1234	1282	1278	1280	2.2	2.1	2.1	2.1	2.0	46.50	28
N Ireland	20	15	12	13	14	1.0	0.7	0.6	0.6	0.7	1.49	9
Scotland	43	46	47	47	60	0.8	0.9	0.9	0.8	1.1	4.53	13
Wales	104	120	123	118	123	3.2	3.7	3.7	3.4	3.4	2.50	49
UK	1414	1415	1464	1456	1477	2.1	2.0	2.1	2.0	2.0	55.02	27

Country HHD populations were calculated by summing the HHD 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

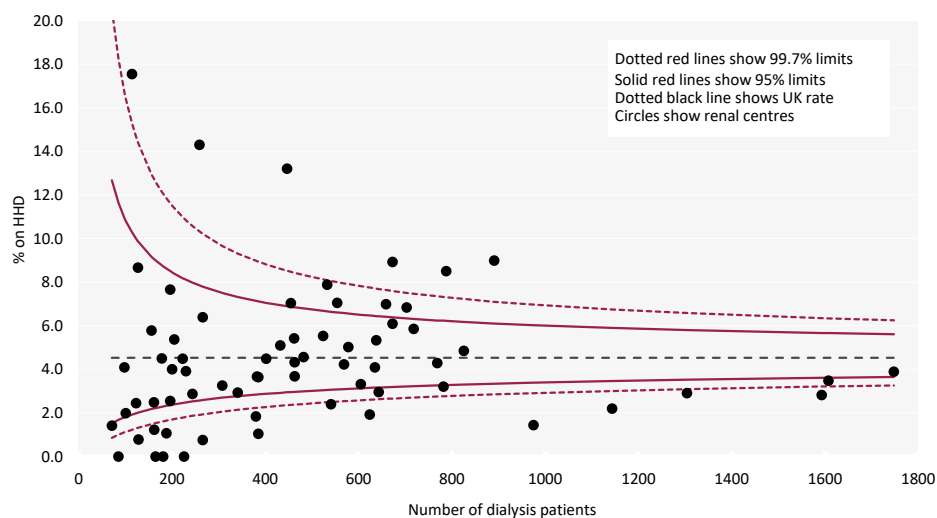


Figure 7.2 Percentage of adult patients prevalent to dialysis on 31/12/2024 who were on HHD by centre

Demographics of prevalent adult HHD patients

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

Table 7.3 Demographics of adult patients prevalent to HHD on 31/12/2024 by centre

Centre	N on KRT	N on HHD	% on HHD	Median age (yrs)	% male	Ethnicity				
						% White	% Asian	% Black	% Other	% missing
ENGLAND										
Bham	3,469	68	2.0	56.5	73.5	67.2	17.9	11.9	3.0	1.5
Bradfd	841	4	0.5	64.8	75.0	100.0	0.0	0.0	0.0	0.0
Brightn	1,180	29	2.5	62.9	69.0	96.6	3.4	0.0	0.0	0.0
Bristol	1,524	13	0.9	53.5	30.8	100.0	0.0	0.0	0.0	0.0
Camb	1,711	22	1.3	62.2	59.1	90.9	0.0	9.1	0.0	0.0
Carlisle	332	4	1.2	50.4	50.0	100.0	0.0	0.0	0.0	0.0
Carsh	2,088	25	1.2	57.6	76.0	64.0	16.0	16.0	4.0	0.0
Colchr	181	0	0.0							
Covnt	1,160	22	1.9	46.2	77.3	81.8	9.1	9.1	0.0	0.0
Derby	775	59	7.6	58.0	66.1	90.7	7.4	1.9	0.0	8.5
Donc	382	10	2.6	64.5	70.0	100.0	0.0	0.0	0.0	0.0
Dorset	832	14	1.7	68.6	85.7	92.9	7.1	0.0	0.0	0.0
Dudley	359	9	2.5	58.0	66.7	100.0	0.0	0.0	0.0	0.0
EssexMS	1,006	12	1.2	59.8	58.3	91.7	0.0	0.0	8.3	0.0
Exeter	1,183	20	1.7	54.4	50.0	100.0	0.0	0.0	0.0	5.0
Glouc	577	2	0.3	61.0	50.0	100.0	0.0	0.0	0.0	0.0
Hull	971	17	1.8	43.8	70.6	70.6	5.9	11.8	11.8	0.0
Ipswi	400	0	0.0							
Kent	1,277	24	1.9	56.0	58.3	95.8	0.0	0.0	4.2	0.0
L Barts	3,138	56	1.8	52.3	58.9	44.6	19.6	32.1	3.6	0.0
L Guys	2,300	33	1.4	52.0	48.5	66.7	6.1	24.2	3.0	0.0
L Kings	1,472	40	2.7	54.0	70.0	46.2	10.3	43.6	0.0	2.5
L Rfree	2,533	14	0.6	51.8	71.4	50.0	14.3	35.7	0.0	0.0
L St.G	916	7	0.8	50.4	57.1	66.7	0.0	33.3	0.0	14.3
L West	3,688	45	1.2	55.4	55.6	26.7	35.6	35.6	2.2	0.0
Leeds	1,987	25	1.3	51.7	64.0	80.0	8.0	4.0	8.0	0.0
Leic	2,920	38	1.3	54.3	81.6	77.8	13.9	5.6	2.8	5.3
Liv UH	1,531	60	3.9	55.3	55.0	96.2	0.0	0.0	3.8	11.7
M RI	2,128	67	3.1	56.2	58.2	65.7	13.4	17.9	3.0	0.0
Middlbr	1,002	18	1.8	53.1	55.6	83.3	0.0	5.6	11.1	0.0
Newc	1,276	25	2.0	60.1	36.0	96.0	0.0	4.0	0.0	0.0
Norwch	797	14	1.8	60.8	64.3	100.0	0.0	0.0	0.0	0.0
Nottm	1,240	29	2.3	58.7	41.4	89.7	0.0	10.3	0.0	0.0
Oxford	2,170	26	1.2	55.2	46.2	76.0	12.0	4.0	8.0	3.8
Plymth	540	5	0.9	57.6	40.0	100.0	0.0	0.0	0.0	0.0
Ports	2,070	80	3.9	56.1	62.5	93.8	3.1	0.0	3.1	18.8
Prestn	1,512	46	3.0	55.2	52.2	95.1	4.9	0.0	0.0	10.9
Redng	1,043	20	1.9	57.4	50.0	66.7	13.3	13.3	6.7	25.0
Salford	1,408	34	2.4	53.1	61.8	85.3	2.9	8.8	2.9	0.0
Sheff	1,503	42	2.8	56.5	59.5	90.5	2.4	4.8	2.4	0.0
Shrew	453	37	8.2	60.2	56.8	80.6	5.6	0.0	13.9	2.7
Stevng	1,144	48	4.2	57.4	60.4	70.8	10.4	8.3	10.4	0.0
Stoke	913	32	3.5	57.3	78.1	93.3	0.0	3.3	3.3	6.3
Sund	627	10	1.6	43.2	60.0	100.0	0.0	0.0	0.0	0.0
Truro	455	11	2.4	65.5	54.5	100.0	0.0	0.0	0.0	0.0
Wirral	421	8	1.9	56.8	62.5	100.0	0.0	0.0	0.0	0.0
Wolve	831	39	4.7	54.5	66.7	82.1	0.0	0.0	17.9	0.0

Table 7.3 Continued

Centre	N on KRT	N on HHD	% on HHD	Median age (yrs)	% male	Ethnicity				
						% White	% Asian	% Black	% Other	% missing
York	613	17	2.8	58.4	82.4	94.1	0.0	5.9	0.0	0.0
N IRELAND										
Antrim	302	1	0.3	65.2	100.0	100.0	0.0	0.0	0.0	0.0
Belfast	922	8	0.9	59.9	62.5	100.0	0.0	0.0	0.0	0.0
Newry	297	2	0.7	59.8	0.0	100.0	0.0	0.0	0.0	0.0
Ulster	193	0	0.0							
West NI	367	3	0.8	56.5	0.0	66.7	33.3	0.0	0.0	0.0
SCOTLAND										
Abrdn	628	7	1.1	50.1	42.9					
Airdrie	547	0	0.0							
D&Gall	159	1	0.6	59.3	0.0					
Dundee	362	2	0.6	64.9	100.0					
Edinb	1,042	10	1.0	55.1	60.0					
Glasgw	1,928	19	1.0	55.7	73.7					
Inverns	281	4	1.4	54.1	75.0					
Klmarnk	386	15	3.9	61.9	66.7					
Krkldy	282	2	0.7	66.5	50.0					
WALES										
Bangor	227	20	8.8	59.1	70.0	93.8	0.0	6.3	0.0	20.0
Cardff	1,841	41	2.2	58.0	61.0	95.0	0.0	2.5	2.5	2.4
Clwyd	222	11	5.0	59.5	81.8					36.4
Swanse	956	42	4.4	60.1	66.7	95.1	2.4	2.4	0.0	2.4
Wrexm	336	9	2.7	64.5	33.3	100.0	0.0	0.0	0.0	22.2
TOTALS										
England	62,879	1,280	2.0	55.8	61.5	79.1	7.6	9.7	3.6	3.7
N Ireland	2,081	14	0.7	59.9	42.9	92.9	7.1	0.0	0.0	0.0
Scotland	5,615	60	1.1	55.7	65.0					
Wales	3,582	123	3.4	60.3	64.2	95.5	0.9	2.7	0.9	9.8
UK	74,157	1,477	2.0	56.3	61.7	80.6	7.1	9.0	3.4	4.2

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

Primary renal diseases (PRDs) were grouped into categories as shown in table 7.4, with the mapping of disease codes into groups explained in more detail in appendix A. The proportion of HHD patients with each PRD 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 7.4 Primary renal diseases (PRDs) of adult patients prevalent to HHD on 31/12/2024

PRD	N on HHD	% HHD population	Age <65 yrs		Age ≥65 yrs		M/F ratio
			N	%	N	%	
Diabetes	205	14.7	154	14.7	51	14.8	1.7
Glomerulonephritis	362	25.9	295	28.1	67	19.4	2.1
Hypertension	88	6.3	61	5.8	27	7.8	3.0
Polycystic kidney disease	136	9.7	98	9.3	38	11.0	1.1
Pyelonephritis	127	9.1	90	8.6	37	10.7	1.2
Renal vascular disease	13	0.9	4	0.4	9	2.6	1.2
Other	306	21.9	234	22.3	72	20.9	1.3
Uncertain aetiology	159	11.4	115	10.9	44	12.8	1.5
Total (with data)	1,396	100.0	1,051	100.0	345	100.0	
Missing	81	5.5	66	5.9	15	4.2	2.4

Biochemistry parameters in prevalent adult HHD patients

The UK Kidney Association guideline on CKD mineral bone disease contains only one audit measure, which is the percentage of patients with adjusted calcium above the target range.

Table 7.5 Median adjusted calcium (Ca) and percentage with adjusted Ca within and above the target range (2.2–2.5 mmol/L) in adult patients prevalent to HHD on 31/12/2024 by centre

Centre	Median adj Ca (mmol/L)	% adj Ca 2.2-2.5 mmol/L	% adj Ca >2.5 mmol/L	% data completeness
ENGLAND				
Bham	2.3	72.3	12.3	100.0
Bradfd				100.0
Brightn	2.4	93.1	3.5	100.0
Bristol	2.4	76.9	15.4	100.0
Camb	2.4	66.7	23.8	95.5
Carlis				100.0
Carsh	2.4	87.5	0.0	100.0
Colchr				
Covnt	2.4	85.0	10.0	95.2
Derby	2.4	84.2	10.5	100.0
Donc	2.4	80.0	0.0	100.0
Dorset	2.3	92.9	7.1	100.0
Dudley				100.0
EssexMS	2.5	91.7	8.3	100.0
Exeter	2.3	80.0	5.0	100.0
Glouc				100.0
Hull	2.3	64.7	5.9	100.0
Ipswi				
Kent	2.4	75.0	8.3	100.0
L Barts	2.4	82.1	8.9	100.0
L Guys	2.3	69.7	12.1	100.0
L Kings	2.4	66.7	25.6	100.0
L Rfree	2.4	57.1	28.6	100.0
L St.G				100.0
L West				50.0
Leeds	2.4	77.3	9.1	88.0
Leic	2.3	71.1	5.3	100.0
Liv UH	2.4	82.8	12.1	98.3
M RI	2.4	84.9	13.6	98.5
Middlbr	2.3	88.9	0.0	100.0

Table 7.5 Continued

Centre	Median adj Ca (mmol/L)	% adj Ca 2.2-2.5 mmol/L	% adj Ca >2.5 mmol/L	% data completeness
Newc	2.5	72.0	20.0	100.0
Norwch	2.3	76.9	0.0	100.0
Nottm	2.3	93.1	0.0	100.0
Oxford	2.4	76.9	0.0	100.0
Plymth				100.0
Ports	2.4	80.8	9.0	100.0
Prestn	2.4	91.3	6.5	100.0
Redng	2.3	88.2	11.8	100.0
Salford	2.5	67.7	29.4	100.0
Sheff	2.3	67.5	5.0	100.0
Shrew	2.4	75.8	21.2	100.0
Stevng	2.4	83.8	5.4	94.9
Stoke	2.5	66.7	26.7	100.0
Sund	2.3	50.0	20.0	100.0
Truro	2.5	80.0	20.0	90.9
Wirral				87.5
Wolve	2.4	84.6	12.8	100.0
York	2.3	76.5	5.9	100.0
N IRELAND				
Antrim				100.0
Belfast				100.0
Newry				100.0
Ulster				
West NI				100.0
WALES				
Bangor	2.4	80.0	10.0	100.0
Cardff	2.4	90.2	2.4	100.0
Clwyd	2.4	90.9	9.1	100.0
Swanse	2.4	83.3	11.9	100.0
Wrexms				100.0
TOTALS				
England	2.4	78.6	11.5	97.4
N Ireland	2.5	78.6	14.3	100.0
Wales	2.4	87.0	7.3	100.0
E, W & NI	2.4	79.3	11.1	97.6

Blank cells – no data returned by the centre or <10 patients in the centre or data completeness <70%

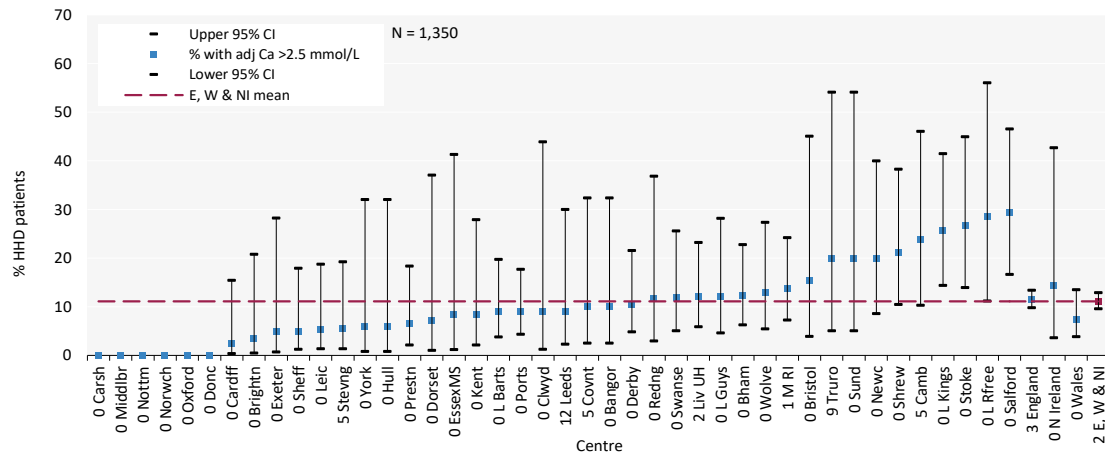


Figure 7.3 Percentage of adult patients prevalent to HHD on 31/12/2024 with adjusted calcium (Ca) above the target range (>2.5 mmol/L) by centre
CI – confidence interval

Table 7.6 Median pre-dialysis potassium and bicarbonate and percentage attaining target ranges in adult patients prevalent to HHD on 31/12/2024 by centre

Centre	Pre-dialysis potassium					Pre-dialysis bicarbonate				
	Median (mmol/L)	% <4.0 mmol/L	% 4.0–6.0 mmol/L	% >6.0 mmol/L	% data completeness	Median (mmol/L)	% <18 mmol/L	% 18–26 mmol/L	% >26 mmol/L	% data completeness
ENGLAND										
Bham					44.6	23	8.5	83.0	8.5	72.3
Bradfd					100.0					100.0
Brightn					0.0	24	0.0	58.6	41.4	100.0
Bristol	4.1	30.8	69.2	0.0	100.0	23	0.0	76.9	23.1	100.0
Camb	5.0	9.5	81.0	9.5	95.5	25	0.0	71.4	28.6	95.5
Carlis					0.0					100.0
Carsh					0.0					0.0
Colchr										
Covnt					0.0	26	0.0	57.9	42.1	90.5
Derby	4.4	21.1	79.0	0.0	100.0	24	0.0	86.0	14.0	100.0
Donc	5.3	0.0	100.0	0.0	100.0	25	0.0	80.0	20.0	100.0
Dorset	4.9	7.1	78.6	14.3	100.0	22	0.0	92.9	7.1	100.0
Dudley					100.0					100.0
EssexMS	5.0	41.7	41.7	16.7	100.0	26	0.0	66.7	33.3	100.0
Exeter	4.9	10.0	80.0	10.0	100.0	25	0.0	80.0	20.0	100.0
Glouc					0.0					100.0
Hull	5.0	5.9	88.2	5.9	100.0	24	6.7	80.0	13.3	88.2
Ipswi										
Kent	4.2	41.7	58.3	0.0	100.0	24	4.2	66.7	29.2	100.0
L Barts	5.3	5.4	80.4	14.3	100.0	24	0.0	76.8	23.2	100.0
L Guys	4.9	9.1	81.8	9.1	100.0	24	3.0	72.7	24.2	100.0
L Kings	5.4	2.6	76.9	20.5	100.0	20	18.0	76.9	5.1	100.0
L Rfree	5.5	0.0	85.7	14.3	100.0					64.3
L St.G					0.0					100.0
L West					0.0					31.8
Leeds	5.1	0.0	87.0	13.0	92.0	21	0.0	95.7	4.4	92.0
Leic	5.2	10.5	76.3	13.2	100.0	23	0.0	96.7	3.3	79.0
Liv UH					0.0	23	0.0	94.8	5.2	98.3
M RI	4.8	12.1	86.4	1.5	98.5	23	3.1	86.2	10.8	97.0
Middlbr	5.4	0.0	94.4	5.6	100.0	28	0.0	44.4	55.6	100.0

Table 7.6 Continued

Centre	Pre-dialysis potassium					Pre-dialysis bicarbonate				
	Median (mmol/L)	% <4.0 mmol/L	% 4.0–6.0 mmol/L	% >6.0 mmol/L	% data completeness	Median (mmol/L)	% <18 mmol/L	% 18–26 mmol/L	% >26 mmol/L	% data completeness
Newc					0.0	23	8.0	80.0	12.0	100.0
Norwch	4.7	23.1	53.9	23.1	100.0	22	0.0	90.9	9.1	84.6
Nottm	5.1	24.1	58.6	17.2	100.0					58.6
Oxford	5.1	19.2	80.8	0.0	100.0	23	3.9	88.5	7.7	100.0
Plymth					100.0					50.0
Ports	4.8	7.7	85.9	6.4	100.0	23	4.0	84.0	12.0	96.2
Prestn	5.1	6.5	91.3	2.2	100.0	23	2.2	84.8	13.0	100.0
Redng	4.4	23.5	64.7	11.8	100.0	21	0.0	76.5	23.5	100.0
Salford	5.0	14.7	79.4	5.9	100.0	23	0.0	78.8	21.2	97.1
Sheff	5.1	7.5	82.5	10.0	100.0	23	5.0	77.5	17.5	100.0
Shrew					0.0	21	9.1	84.9	6.1	100.0
Stevng	5.0	13.5	83.8	2.7	94.9	24	0.0	75.7	24.3	94.9
Stoke					0.0					0.0
Sund					0.0	24	0.0	90.0	10.0	100.0
Truro	4.8	10.0	90.0	0.0	90.9	24	10.0	80.0	10.0	90.9
Wirral					0.0					100.0
Wolve					0.0	20	30.8	66.7	2.6	100.0
York	5.3	0.0	70.6	29.4	100.0	23	0.0	64.7	35.3	100.0
N IRELAND										
Antrim					100.0					100.0
Belfast					100.0					100.0
Newry					100.0					100.0
Ulster										
West NI					100.0					100.0
WALES										
Bangor	4.6	20.0	75.0	5.0	100.0	24	5.0	75.0	20.0	100.0
Cardff	5.1	0.0	95.1	4.9	100.0	23	7.3	80.5	12.2	100.0
Clwyd	5.5	9.1	72.7	18.2	100.0	23	0.0	100.0	0.0	100.0
Swanse	5.0	9.5	83.3	7.1	100.0	24	4.9	82.9	12.2	97.6
Wrexm					100.0					100.0
TOTALS										
England	5.0	11.5	80.2	8.3	69.7	23	3.8	80.0	16.2	88.1
N Ireland	4.8	7.1	92.9	0.0	100.0	22	0.0	100.0	0.0	100.0
Wales	5.0	8.9	84.6	6.5	100.0	23	4.9	82.8	12.3	99.2
E, W & NI	5.0	11.1	80.9	8.0	72.7	23	3.9	80.5	15.6	89.2

Blank cells – no data returned by the centre or <10 patients in the centre or data completeness <70%

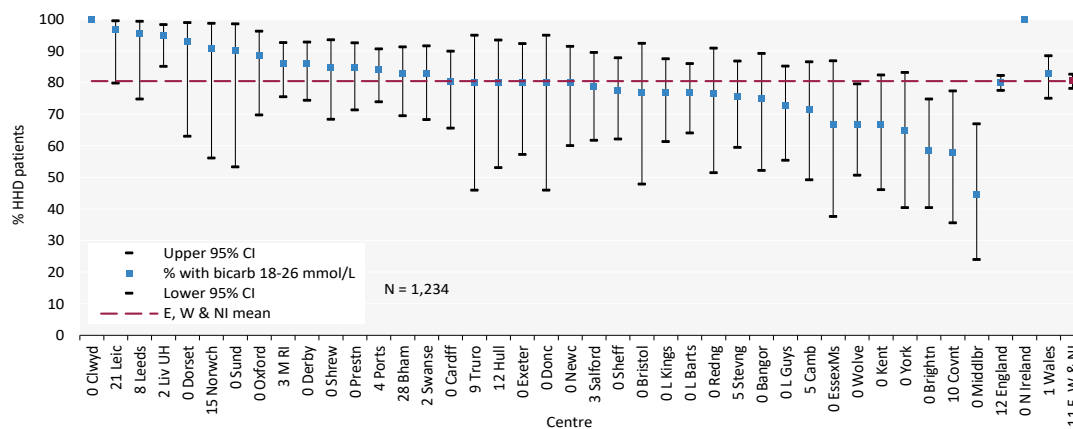


Figure 7.4 Percentage of adult patients prevalent to HHD on 31/12/2024 with pre-dialysis bicarbonate (bicarb) within the target range (18-26 mmol/L) by centre
CI – confidence interval

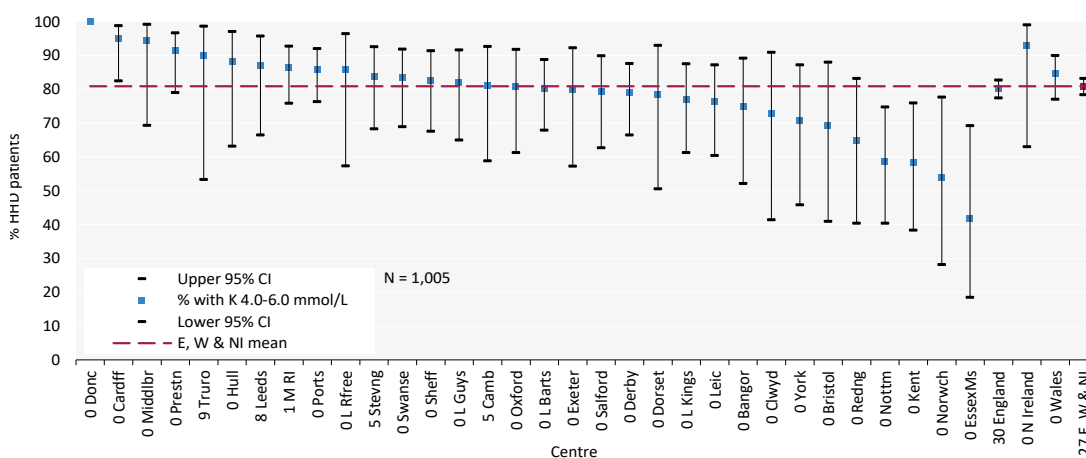


Figure 7.5 Percentage of adult patients prevalent to HHD on 31/12/2024 with pre-dialysis potassium (K) within the target range (4.0-6.0 mmol/L) by centre
CI – confidence interval

Anaemia in prevalent adult HHD patients

UK Kidney Association anaemia guidelines recommend a target haemoglobin of 100-120 g/L. Data are presented in table 7.7 regarding target and median haemoglobin and ferritin levels attained.

Table 7.7 Median haemoglobin and ferritin and percentage attaining target ranges in adult patients prevalent to HHD on 31/12/2024 by centre

Centre	Haemoglobin				Ferritin		
	Median (g/L)	% <100 g/L	% >120 g/L	% data completeness	Median (µg/L)	% <200 µg/L	% data completeness
ENGLAND							
Bham	112	23.1	29.2	100.0	523	9.2	100.0
Bradfd				100.0			100.0
Brightn	104	34.5	24.1	100.0	327	34.5	100.0
Bristol	109	7.7	15.4	100.0	296	25.0	92.3
Camb				22.7			18.2
Carlisle				100.0			100.0
Carsh	111	20.8	12.5	100.0	356	29.2	100.0
Colchr				NA			NA
Covnt	102	40.0	20.0	95.2	202	47.6	100.0
Derby	114	15.8	31.6	100.0	445	3.5	100.0
Donc	105	40.0	10.0	100.0	409	20.0	100.0
Dorset	110	21.4	21.4	100.0	272	14.3	100.0
Dudley				100.0			100.0
EssexMS	103	41.7	8.3	100.0	474	8.3	100.0
Exeter	101	50.0	10.0	100.0	200	50.0	100.0
Glouc				100.0			100.0
Hull	108	17.6	11.8	100.0	786	0.0	100.0
Ipswi				NA			NA
Kent	111	20.8	29.2	100.0	423	20.8	100.0
L Barts	110	21.4	21.4	100.0	623	23.2	100.0
L Guys	104	45.5	12.1	100.0	389	28.1	97.0
L Kings	112	15.8	18.4	97.4	552	2.9	89.7
L Rfree	110	0.0	14.3	100.0	382	7.1	100.0
L St.G				100.0			100.0
L West				52.3			40.9
Leeds	104	40.0	8.0	100.0	231	44.0	100.0
Leic	105	26.3	28.9	100.0	424	15.8	100.0
Liv UH	111	27.6	17.2	98.3	419	20.7	98.3
M RI	115	24.2	30.3	98.5	291	32.8	95.5
Middlbr	113	16.7	33.3	100.0	1089	6.3	88.9
Newc	107	36.0	20.0	100.0	795	12.0	100.0
Norwch	107	30.8	15.4	100.0	55	76.9	100.0
Nottm	109	27.6	17.2	100.0	396	20.7	100.0
Oxford	110	30.0	25.0	76.9	612	3.8	100.0
Plymth				100.0			100.0
Ports	109	25.6	19.2	100.0	311	28.6	98.7
Prestn	109	19.6	17.4	100.0	460	15.2	100.0
Redng	100	47.1	5.9	100.0	358	17.6	100.0
Salford	107	38.2	14.7	100.0	208	44.1	100.0
Sheff	110	20.0	15.0	100.0	375	22.5	100.0
Shrew	112	24.2	24.2	100.0	421	15.2	100.0
Stevng	106	32.4	16.2	94.9	403	13.2	97.4
Stoke	111	16.7	20.0	100.0	309	20.0	100.0
Sund	116	0.0	40.0	100.0	139	60.0	100.0
Truro	107	40.0	10.0	90.9	391	20.0	90.9
Wirral				100.0			100.0
Wolve	107	28.2	15.4	100.0	478	15.4	100.0

Table 7.7 Continued

Centre	Haemoglobin				Ferritin		
	Median (g/L)	% <100 g/L	% >120 g/L	% data completeness	Median (µg/L)	% <200 µg/L	% data completeness
York	102	47.1	23.5	100.0	221	41.2	100.0
N IRELAND							
Antrim				100.0			100.0
Belfast				100.0			100.0
Newry				100.0			100.0
Ulster				NA			NA
West NI				100.0			100.0
SCOTLAND							
Abrdn				100.0			
Airdrie				NA			
D&Gall				100.0			
Dundee				100.0			
Edinb				100.0			
Glasgw	106	38.9	16.7	100.0			
Inverns				100.0			
Klmarnk	108	20.0	20.0	100.0			
Krkldy				100.0			
WALES							
Bangor	106	30.0	10.0	100.0	445	25.0	100.0
Cardff	105	26.8	24.4	100.0	298	36.6	100.0
Clwyd	113	27.3	9.1	100.0	397	27.3	100.0
Swanse	113	14.3	16.7	100.0	290	38.1	100.0
Wrexm				100.0			100.0
TOTALS							
England	109	26.6	20.4	95.9	388	22.2	95.3
N Ireland	110	14.3	7.1	100.0	306	42.9	100.0
Scotland	109	29.3	22.4	100.0			
Wales	108	24.4	17.1	100.0	336	35.0	100.0
UK	109	26.4	20.1	96.5	383	23.6	95.7

Blank cells – no data returned by the centre or <10 patients in the centre or data completeness <70%

UK National average for ferritin does not include Scotland

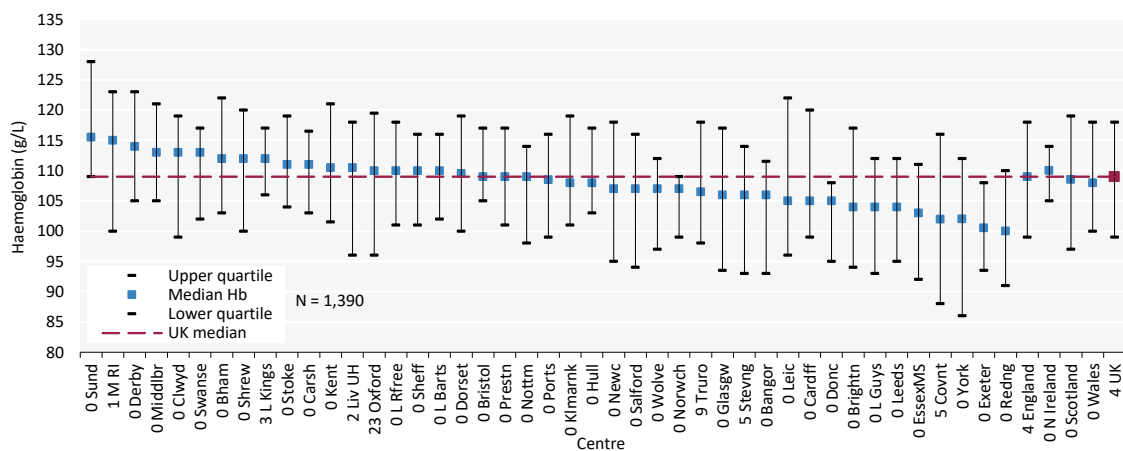


Figure 7.6 Median haemoglobin (Hb) in adult patients prevalent to HHD on 31/12/2024 by centre

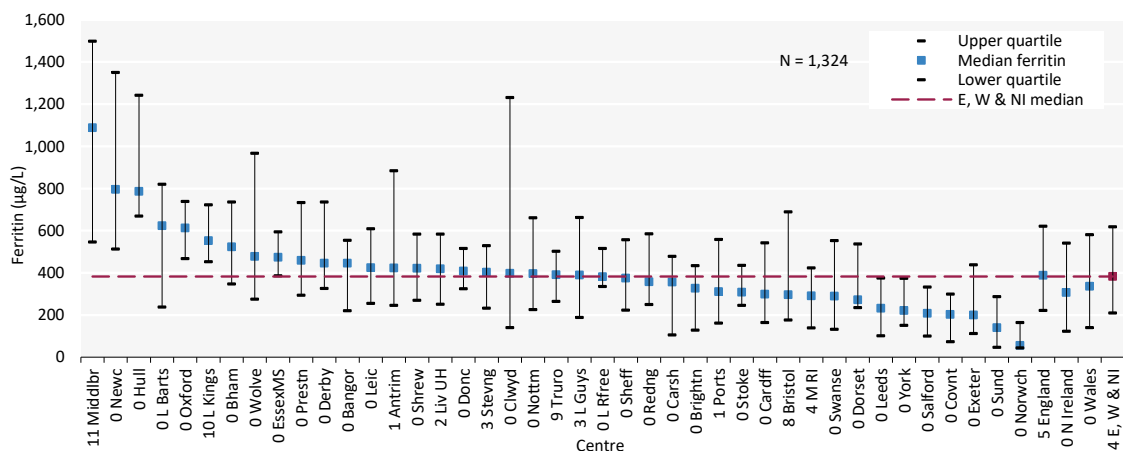


Figure 7.7 Median ferritin in adult patients prevalent to HHD on 31/12/2024 by centre

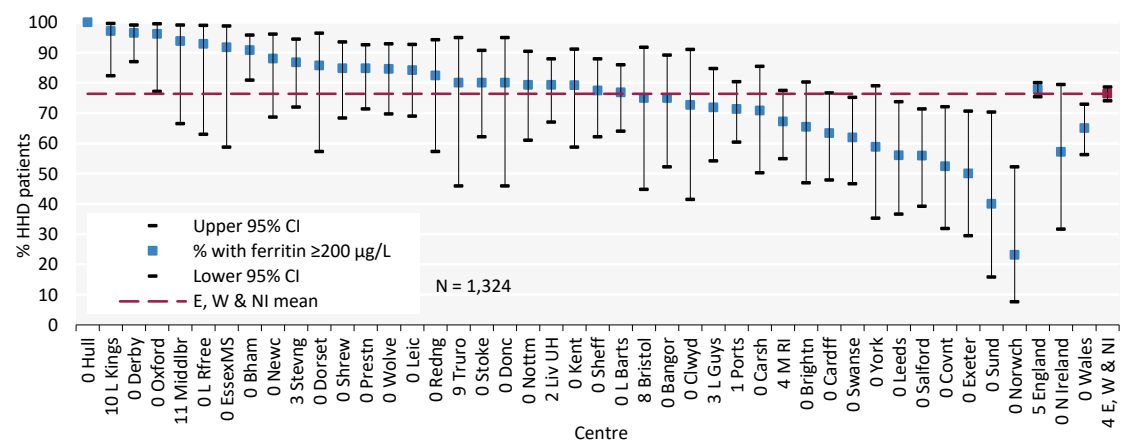


Figure 7.8 Percentage of adult patients prevalent to HHD on 31/12/2024 with ferritin ≥ 200 µg/L by centre

CI – confidence interval

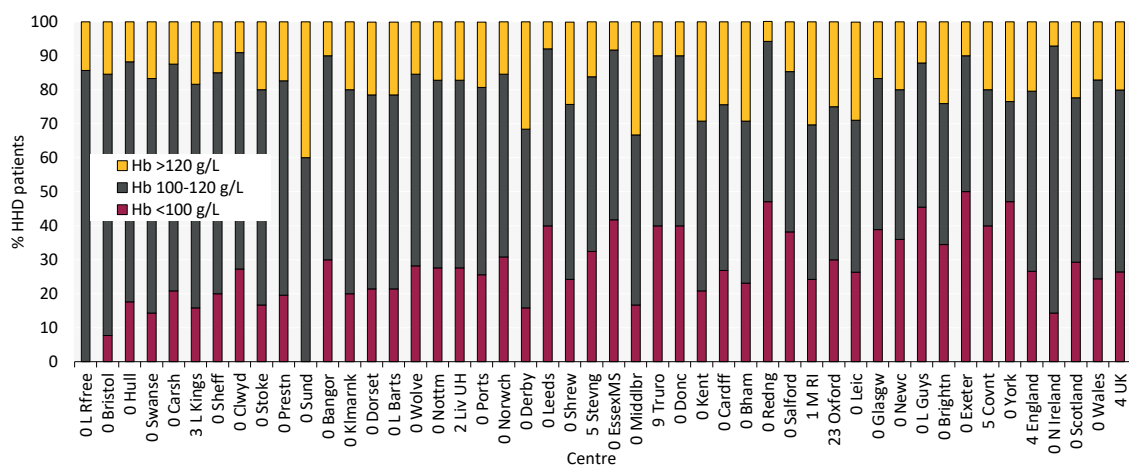


Figure 7.9 Distribution of haemoglobin (Hb) in adult patients prevalent to HHD on 31/12/2024 by centre

Cause of death in adult HHD patients

Cause of death was analysed in prevalent patients receiving HHD on 31/12/2023 and followed-up for one year in 2024. The proportion of HHD 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. Further detail on the survival of prevalent KRT patients is in chapter 3.

Table 7.8 Cause of death in adult patients prevalent to HHD on 31/12/2023 followed-up in 2024 by age group

Cause of death	HHD all ages		HHD < 65 years		HHD ≥ 65 years	
	N	%	N	%	N	%
Cardiac disease	29	27.9	20	34.5	9	19.6
Cerebrovascular disease	1	1.0	0	-	1	2.2
Infection	17	16.4	13	22.4	4	8.7
Malignancy	7	6.7	0	-	7	15.2
Treatment withdrawal	8	7.7	2	3.5	6	13.0
Other	35	33.7	21	36.2	14	30.4
Uncertain aetiology	7	6.7	2	3.5	5	10.9
Total (with data)	104	100.0	58	100.0	46	100.0
Missing	10	8.8	4	6.5	6	11.5

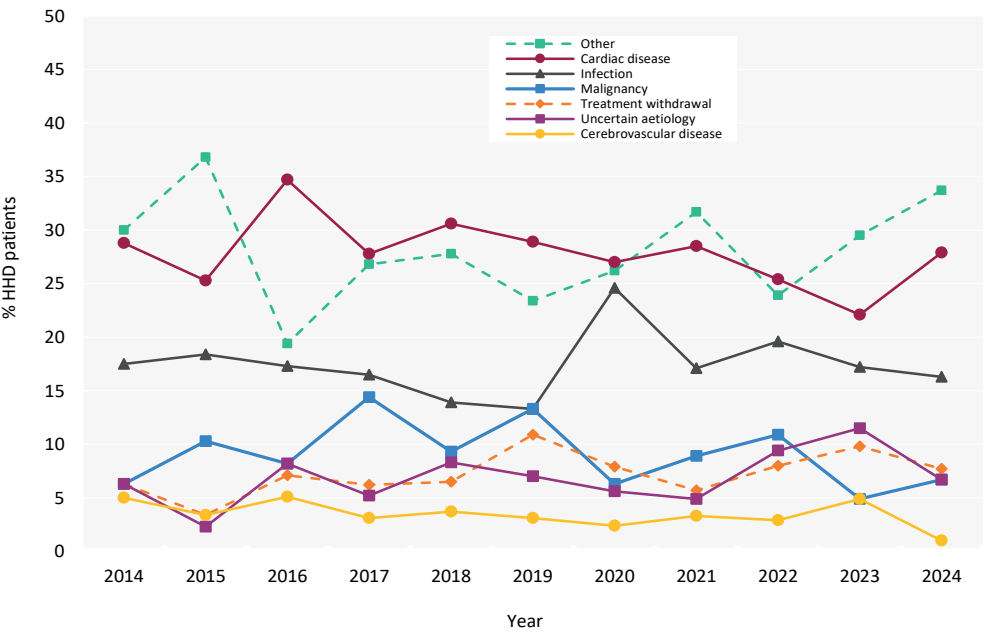


Figure 7.10 Cause of death between 2014 and 2024 for adult patients prevalent to HHD at the beginning of the year