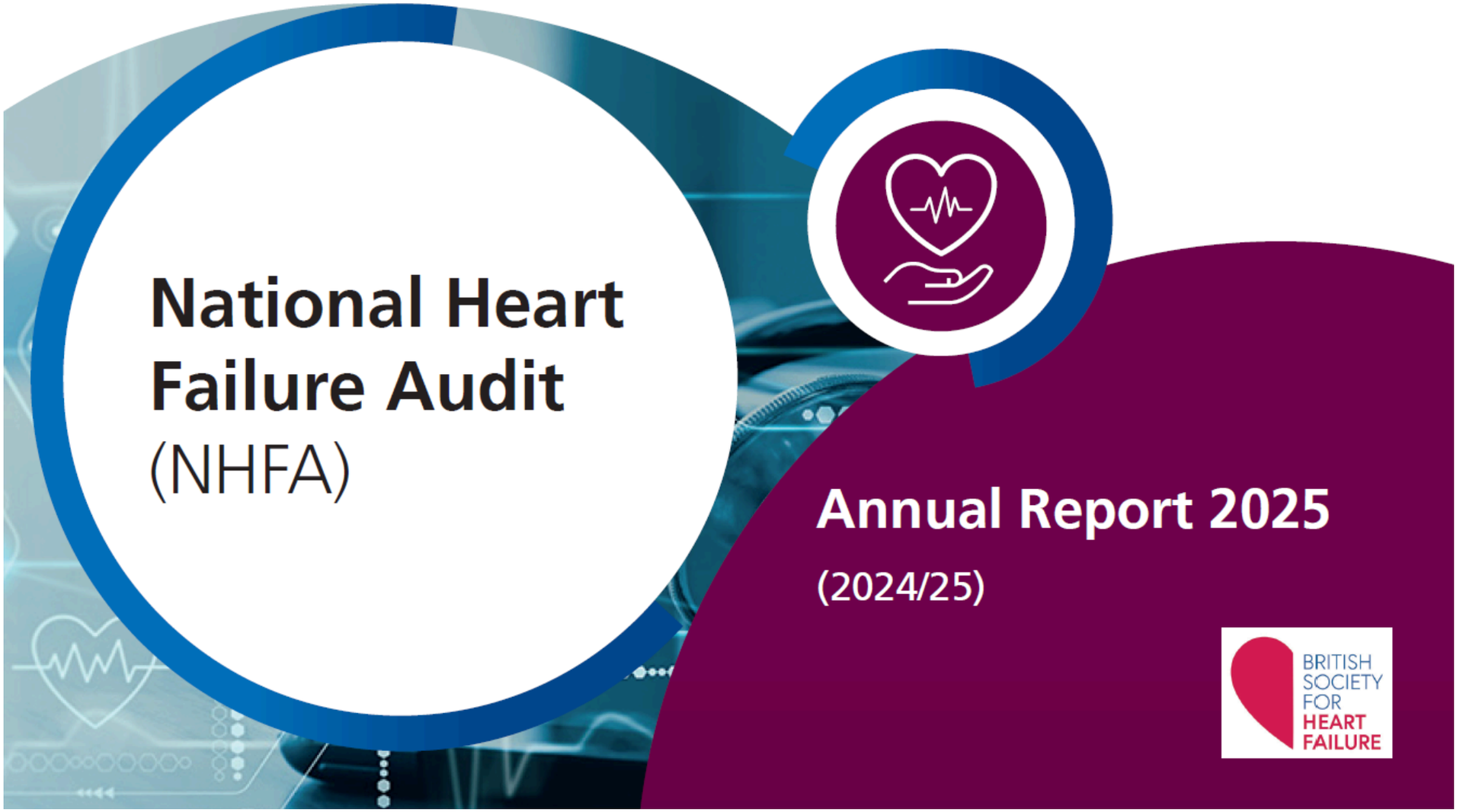
NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR



National Heart Failure Audit (NHFA)

Annual Report 2025

(2024/25)

BRITISH SOCIETY FOR HEART FAILURE

Report at a glance

60,661 confirmed index hospital admissions for heart failure

87% of heart failure patients underwent investigation with echocardiography

Just over **50%** of patients have heart failure with reduced ejection fraction (HFrEF)

Only **40%** of heart failure patients were cared for on a cardiology ward

83% of heart failure patients were seen by a specialist heart failure team

50% of patients with HFrEF received "quadruple therapy" with recommended drugs

71% of those with HFrEF received a mineralocorticoid receptor antagonist

75% of patients with HFrEF received a sodium glucose co-transporter 2 inhibitor (SGLT2i)

51% of patients with "non-HFrEF" received an SGLT2i medication

17% of patients with heart failure and atrial fibrillation (AF) have not been prescribed an anticoagulant at discharge

55% of patients are seen by a specialist Heart Failure nurse

21% of HF patients admitted to a cardiology ward were recorded as being referred for cardiac rehabilitation

9.8% in-hospital and **11.9%** 30-day mortality post-discharge

Recommendations

1. Patients should be investigated with echocardiography

Echocardiography, the key diagnostic tool, is undertaken in 87% of patients overall. However, it occurs in only 73% of cases where there is no specialist input, meaning that 27% do not have a secure diagnosis. The hospital Heart Failure (HF) clinical leads and teams need to rectify these shortfalls urgently to meet the audit target of 90%.

2. Patients should be seen by HF specialist teams

In this audit cycle, 17% of patients have no specialist input which risks less effective care that translates into worse outcomes. Improved access to cardiology ward care, alongside improved outreach by both cardiologists and HF nurses is needed for all HF patients.

3. Patients should be prescribed all appropriate medications unless these are contraindicated

All HF patients with reduced ejection fraction (HFrEF), irrespective of place of care, gender or age, should receive the four best-practice disease-modifying drugs, in the absence of contraindications. Patients with non-HFrEF should be carefully assessed for treatment with an SGLT2i drug alongside other more specific drug treatments emerging for certain aetiologies. All patients with atrial fibrillation (AF) and HF should be offered anticoagulation, unless the potential risks outweigh the benefits.

4. Follow-up arrangements should be improved

Cardiology follow-up needs to improve. Patients should be referred for Cardiology and Specialist HF Nurse follow-up irrespective of their cardiac function. This should include leaving hospital with their first appointment already arranged to happen within two weeks. The benefits of cardiac rehabilitation across all age groups and HF types should not be neglected, and patients referred accordingly.

Introduction to the report

This report summarises the key findings from the National Heart Failure Audit (NHFA), part of the National Cardiac Audit Programme (NCAP), which is run by the National Institute for Cardiovascular Outcomes Research (NICOR).

This audit, established in 2007, aims to drive quality improvement (QI) in the care and outcomes for patients with heart failure (HF) both during and subsequent to an emergency admission to hospital because of heart failure. This is achieved by capturing data on clinical indicators and other metrics that have a proven link, through clinical trials, to better outcomes. This then encourages the increased use of diagnostic tools and disease-modifying treatments recommended in national and international guidelines and quality standards.

This report summarises the care of people with an emergency admission with HF between the beginning of April 2024 and the end of March 2025, with HES-coded HF admissions serving as a numerical comparator for data completeness. We report on many aspects of inpatient care including diagnosis, specialist input, treatments, discharge planning, and inpatient mortality. Through longer term outcomes, we explore the combined influences of an index admission and continuing HF care. A general introduction to HF, audit methodology, the dataset (V5) and other documents of interest, including the HF Domain Expert Group membership, can be found here.

This report also explores the influence of age, gender and social deprivation. It is designed to be of value to a wide range of stakeholders and, importantly, to allow patients and their relatives to better understand the delivery of HF Services. The slides in the report are interactive, allowing anyone to select and explore the data of interest. Be aware that with the introduction of the online format of Power BI there may be small discrepancies in the data compared with previous reports.

The audit relies on the active contribution of all participating hospitals. Detailed information on approximately 80,000 patients with HF has been diligently entered by local teams before analysis is undertaken by the NCOR team. We are very grateful to all who have contributed. We work closely with the British Society for Heart Failure (BSH), hospitals, patients and other stakeholders to improve the quality of audit data, and an understanding of how they are used to ensure the delivery of HF care.

NICOR NHFA Audit Team.

A patient story: Cardiac Rehabilitation and Heart Failure

Mr X is 86 years old, living alone in a house in the Welsh Valleys. Widowed 5 years ago, he has lived in the Valleys all his life. A builder, he retired at 75, having been ‘as fit as a flea’ until 2019, happiest walking in the Welsh mountains.

In March 2019, Mr X developed symptoms walking up a steep hill, having to stop frequently as he was ‘out of puff’. He put this down to getting older but continued to walk daily, changing his walks to flatter terrain. Diagnosed with a viral chest infection, his symptoms deteriorated alongside new ankle swelling. He stopped venturing out, frustrated at his inability to do his or his neighbours’ gardening. Too breathless to climb the stairs his family moved his bed downstairs.

Things got worse and he was admitted to hospital with heart failure due to severe left ventricular systolic dysfunction and fast atrial fibrillation (irregular heart rhythm). He was initiated on disease-modifying drugs including a beta blocker to slow his heart rate and an anticoagulant, going home after five days.

He was referred to our Heart Failure Nurse Service. His main concern was his lack of confidence in returning to walking, worried that exercise could have contributed to his decline in breathing, and acute admission. This was difficult, as part of his coping mechanism when his wife died was to walk in the mountains. He reports sitting at the top of the mountain with his flask of tea and talking to his wife. Unable to do this he was very low.

Reluctant to accept Cardiac Rehabilitation, as he ‘didn’t like group exercise’, his concern was he wouldn’t be able to keep up with others in the class and might look ‘silly’. I explained there would be people of all abilities. He decided to give it a go.

This was the turning point in his recovery. Thoroughly enjoying the classes, he is again walking the Welsh hills, and reports feeling better than he has in a long time. He has helped with building work for his grandson, his bed is upstairs again, he now does all his own housework and feels much more confident.

I no longer see this man in the clinic. His care is optimised, and he has learnt to monitor his own symptoms, with the understanding that he can call us should he have any concerns.

Patient Story provided by Mandie Welch, Heart Failure Nurse Specialist, Cwm Taf Morgannwg UHB

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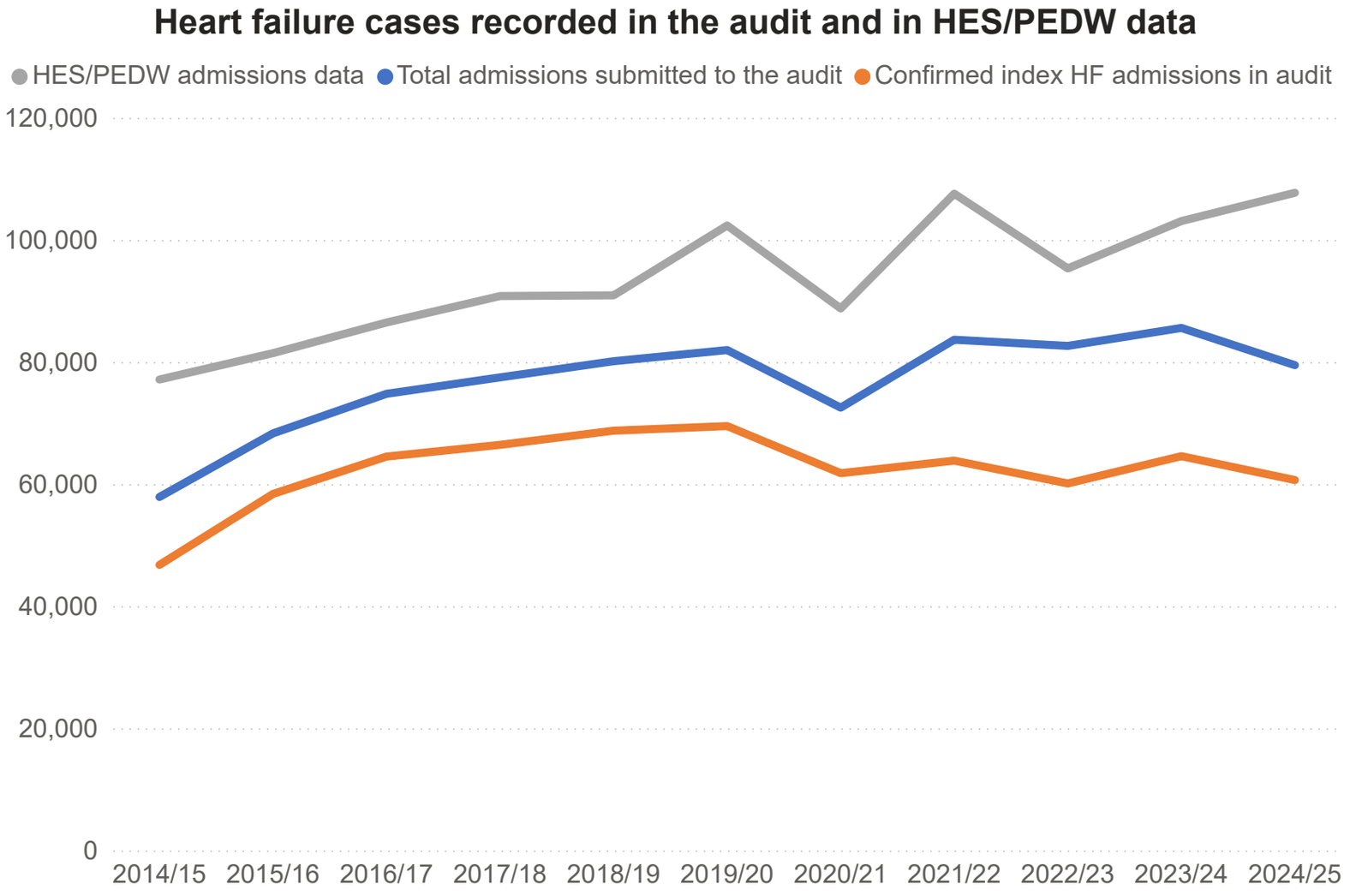
There were slightly fewer confirmed heart failure admissions in 2024/25

Confirmed index HF admissions have dropped by just under 4,000 cases to 60,661 in 2024/25.

The discrepancy between audit submissions and confirmed index HF admissions has doubled from 2021/2022 when compared with earlier years. This likely reflects the introduction of version 5 of the audit dataset with more rigorous criteria for a confirmed index HF admission.

Note: The index admission for a patient is either their only acute HF admission or the first HF admission when more than one was submitted in the audit year. This is to ensure one patient's data from repeated admissions does not distort the statistics. In both instances the audit captures data from patients where heart failure is in the primary diagnostic position and therefore taken as the cause of the admission. The term 'confirmed' is used when the data submitted are verified as an acute HF admission.

Key:
HES = Hospital Episode Statistics
PEDW = Patient Episode Database for Wales



There is substantial variation in HF admissions across Integrated Care Boards in England and University Health Boards in Wales

The maps show the confirmed heart failure (HF) admissions for:

- the 42 Integrated Care Boards (ICBs) in England and 7 Welsh University Health Boards (HBs) (commissioning organisations)
- the 15 Cardiac Networks(CNs) (operational delivery networks) in England.

The darker the area, the higher the rate of HF index admissions. Case numbers can be found by hovering over the different areas of the maps. We are now applying age-standardisation to case numbers.

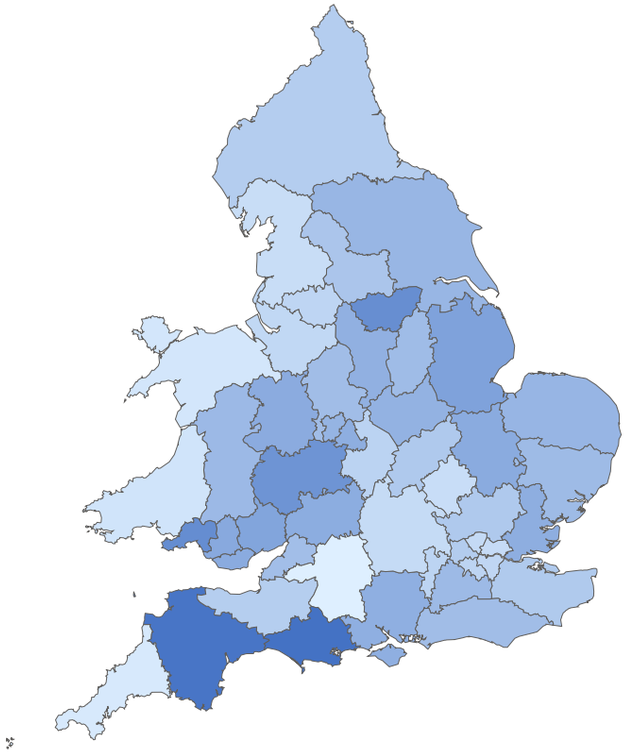
Age-standardised rates by ICB varied from 40 per 100,000 population in Cornwall to 172 per 100,000 population in South Yorkshire.

By Cardiac Network, age-standardised rates varied from 71 per 100,000 in Wales to 175 per 100,000 in South Yorkshire.

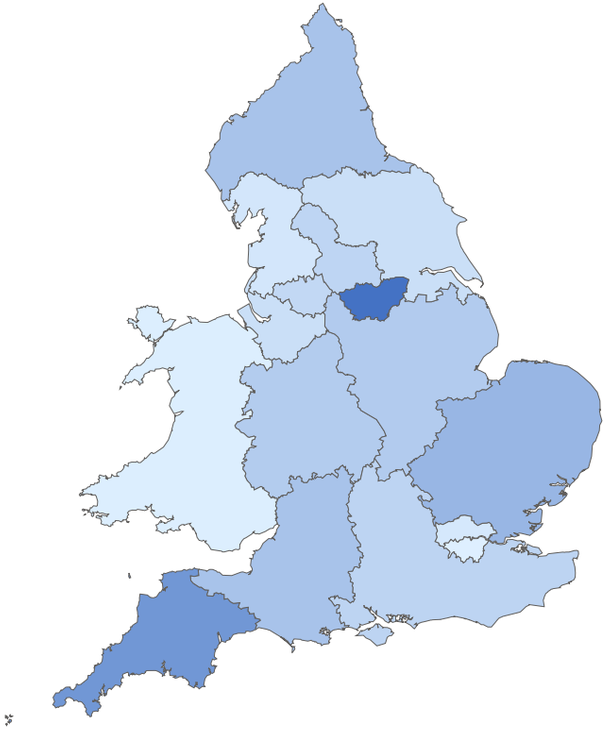
Select rate to show

- (●) Actual rate
- ( ) Age-standardised rate

Confirmed index HF admissions per 100,000 population based on patient home location by ICB/HB (2024/25)



Confirmed index HF admissions per 100,000 population based on hospital location by Cardiac Network (2024/25)



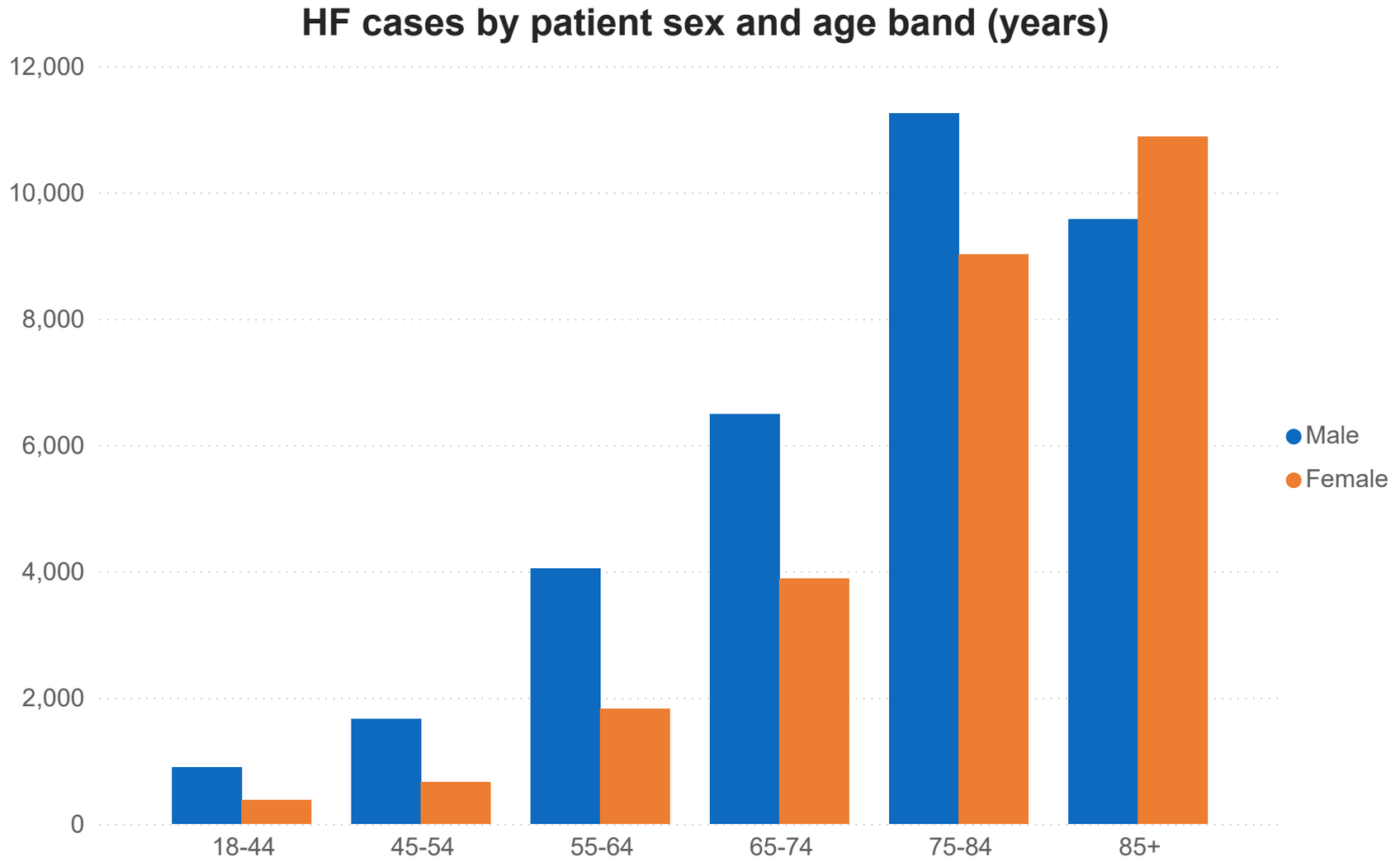
More males are admitted with heart failure for all age groups, except those aged 85 years or older

The demographic profile of cases in 2024/25 is virtually unchanged from the previous year:

- mean age = 77.4 years
- mean age men = 75.6 years
- mean age women = 79.8 years

There are more males than females in all age groups except for those 85 years or older.

Overall, 44% of all index admissions were female.



Age of patients varies little by local health region

The overall median age of HF patients was 80 years in 2024/25 (compared with a mean age of 77.4 years).

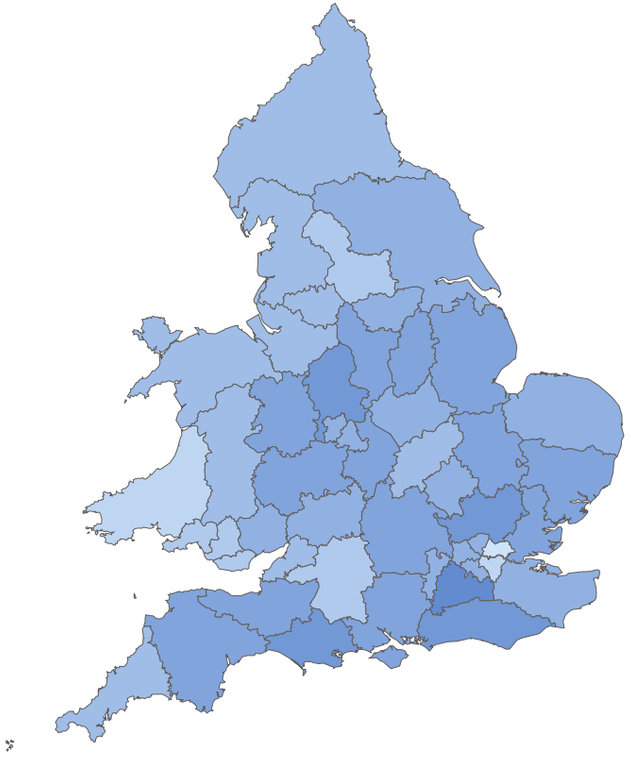
The median age range is:

- 76-83 years by Integrated Care Board (ICB) and Health Board (HB)
- 78-81 years by Cardiac Network.

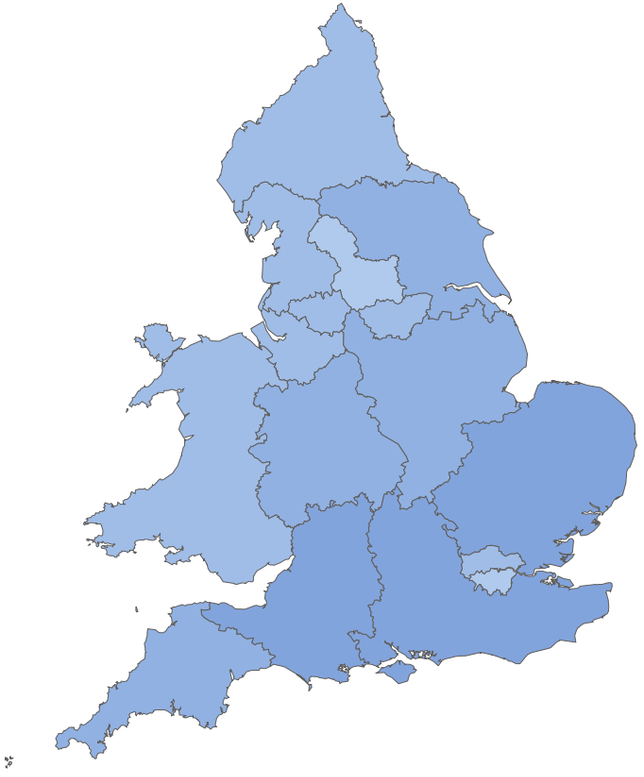
The maps show the median age of patients by area (darker colour = older).

Hover over an area to see its data.

Age of patients based on patient home location by ICB/HB (2024/25)



Age of patients based on hospital location by Cardiac Network (2024/25)



The percentage of HF patients who are female varies considerably between areas

In 2024/25, 44% of all index HF admissions were female.

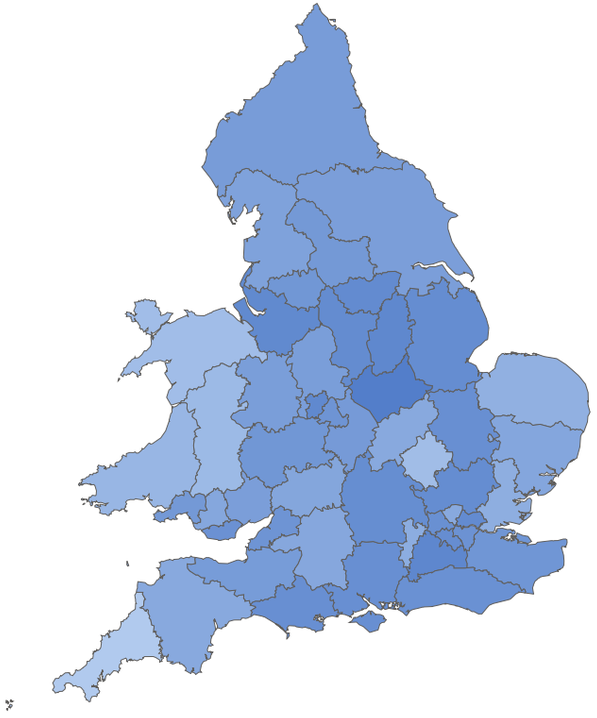
There is considerable regional variation in the proportion of women by Integrated Care Board (ICB), Health Board (HB) and Cardiac Network, ranging from 36% to 48%.

These differences are likely to reflect local demographics.

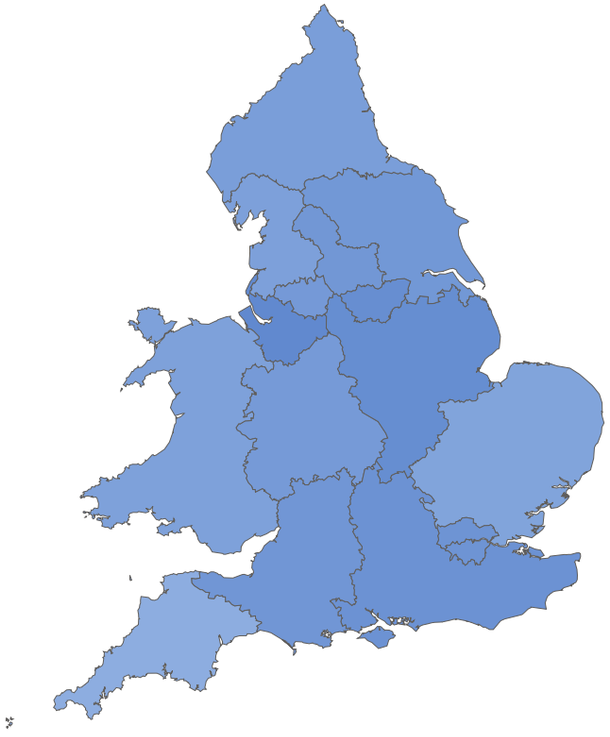
The maps show the proportion of index HF admissions for females by area (darker colour = a higher figure).

Hover over an area to see its data.

Proportion of female patients based on patient home location by ICB/HB (2024/25)



Proportion of female patients based on hospital location by Cardiac Network (2024/25)

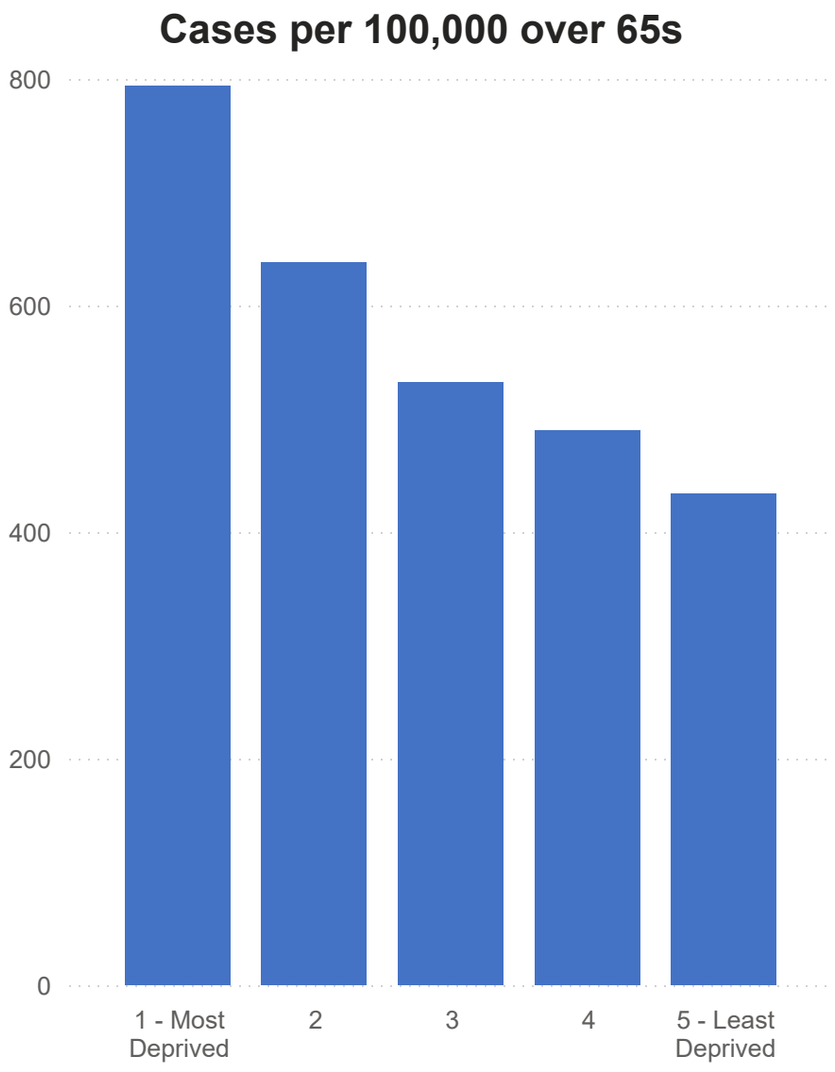


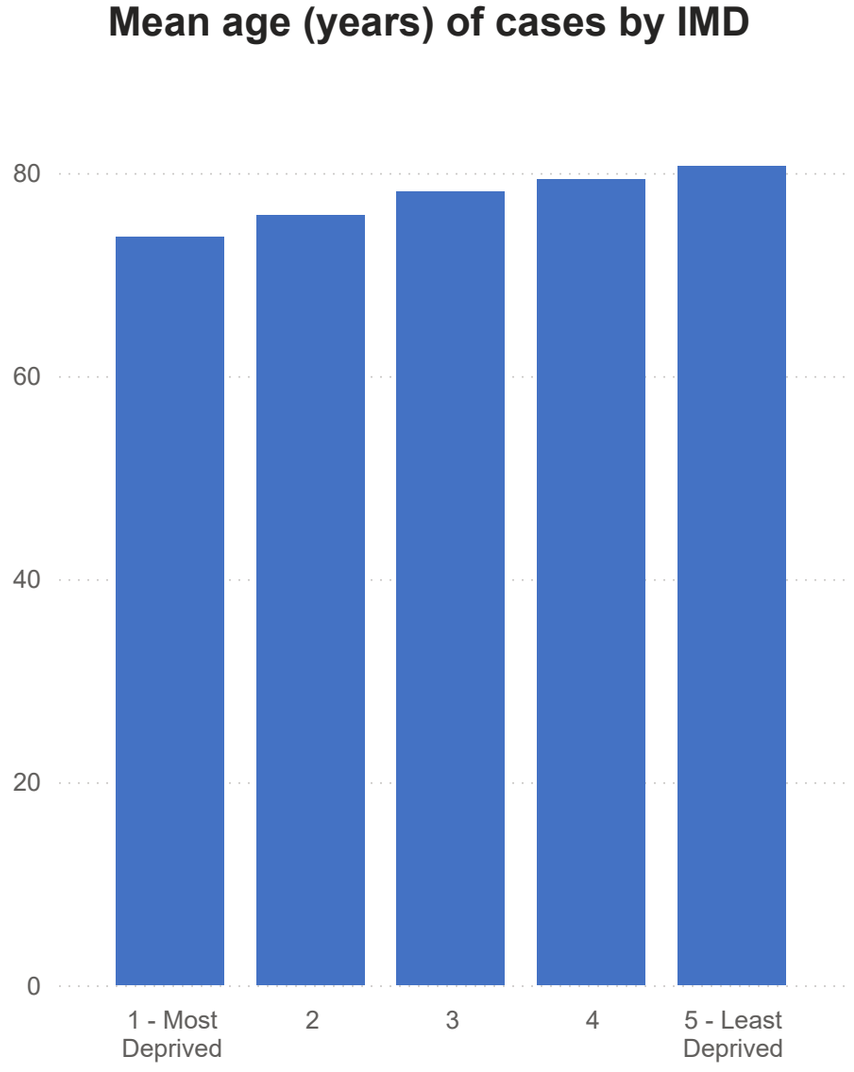
Deprived areas have a higher rate of HF admissions and patients in those places are also first admitted at an earlier age

The Index of Multiple Deprivation (IMD) is a widely used measure of overall deprivation measured at a postcode level. IMD reflects factors including employment, income, housing, education, skills and training, disability and crime.

In 2024/25, there were 80% more HF admissions amongst those aged over 65 in the most deprived areas compared to the least deprived (794 admissions per 100,000 compared to 434).

Since 2012, the gap for age at HF admission between the least and most deprived areas has widened from 5.1 to 6.9 years.





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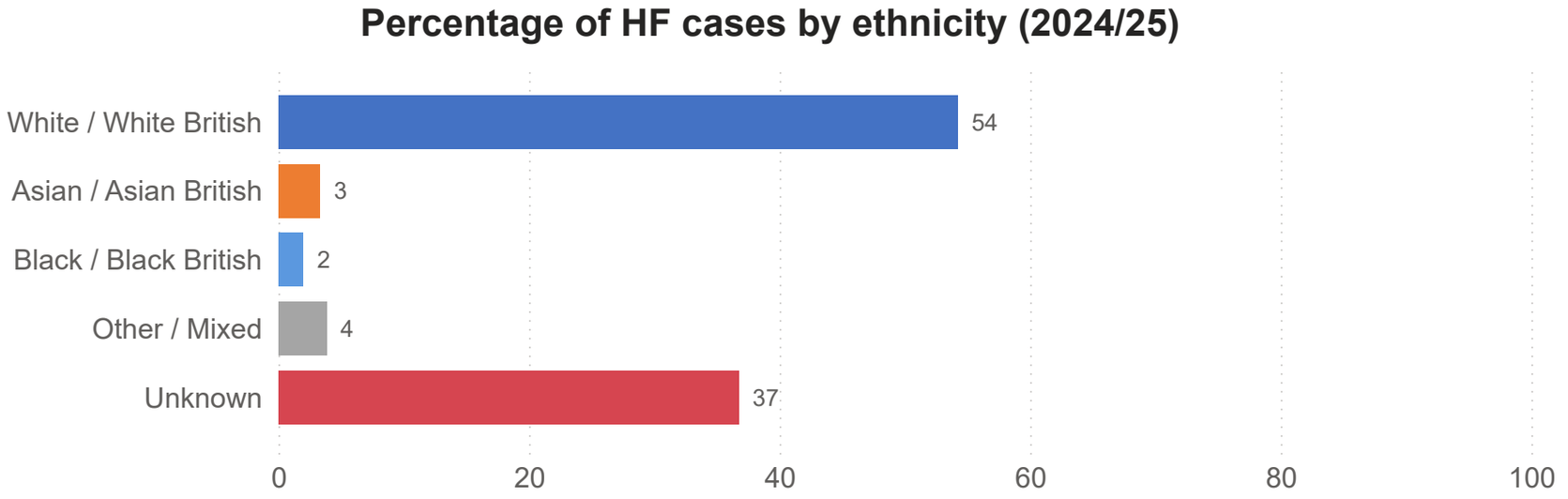
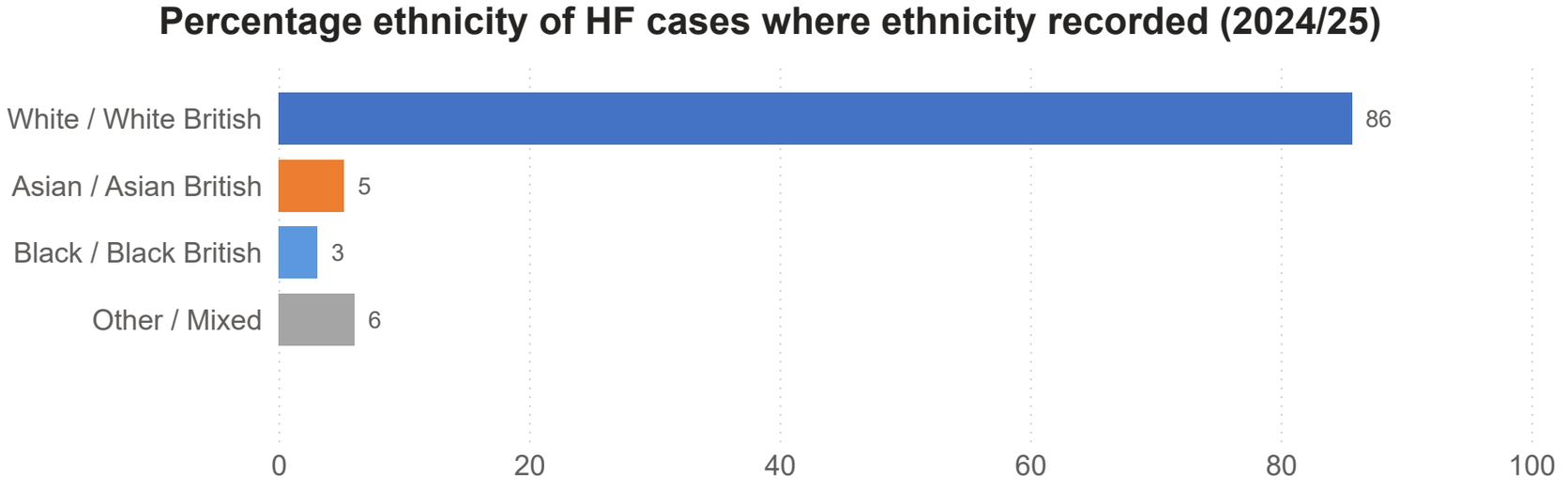
Data on patient ethnicity is poorly recorded

Ethnicity is only recorded in 63% of the patients with a confirmed HF admission submitted to the audit. Clearly, data quality needs to improve in this area to draw robust conclusions.

The upper chart gives the percentage of the different ethnicities recorded and shows that ethnicity is not captured in 37% of cases.

The lower graph reports the ethnicity for the 63% of cases where these data were recorded.





People with non-HFrEF account for 50% of index HF admissions in 2024/25

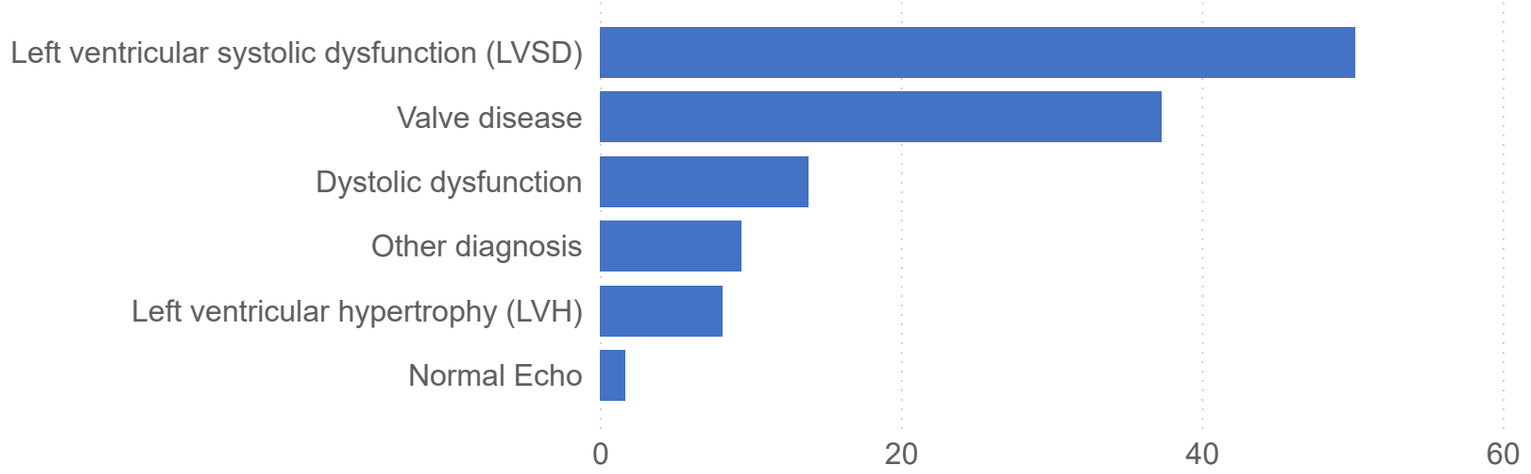
Heart failure can be associated with a range of echocardiographic findings which may occur alone, or in association.

Half of patients have an inability to pump or eject blood effectively into the wider circulation. Where the amount of blood ejected with each beat is reduced to ≤ 40% of the full pumping chamber, this is known as left ventricular systolic dysfunction (LVSD) and defines the associated heart failure with reduced ejection fraction (HFrEF).

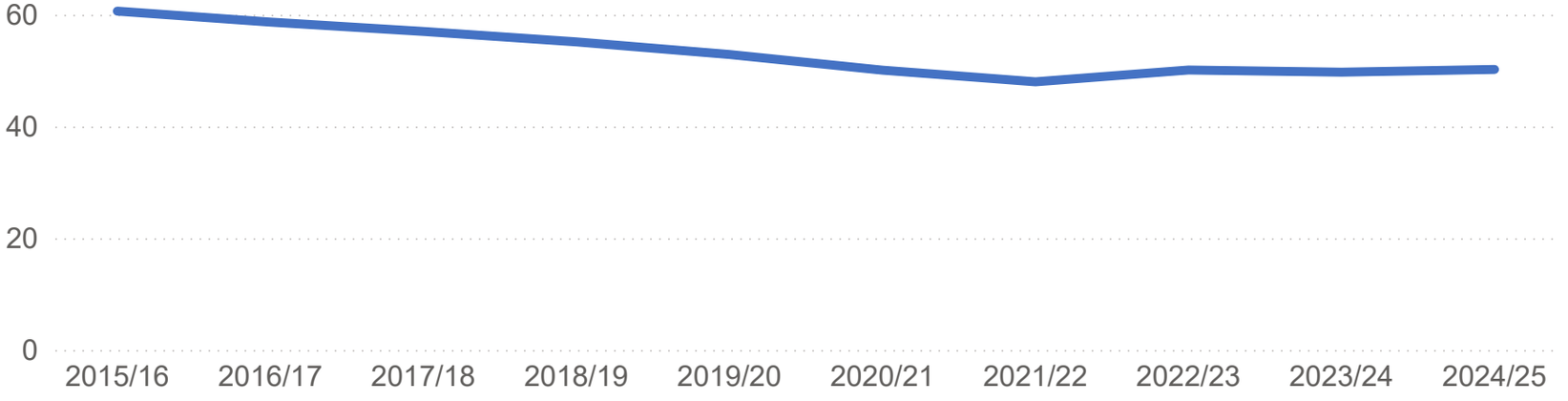
People with LVSD can be treated very effectively with drugs to improve survival, reduce the risk of hospitalisation and raise quality of life.

Patients with clinical symptoms and signs of HF who have preserved heart pump function (HFpEF) or intermediate levels (HFmrEF) are collectively designated as 'non-HFrEF', and now account for just under 50% of HF cases. Disease-modifying drugs are also emerging for this group.

Percentage of echocardiography findings in patients with heart failure (2024/25)



Percentage of patients with HFrEF



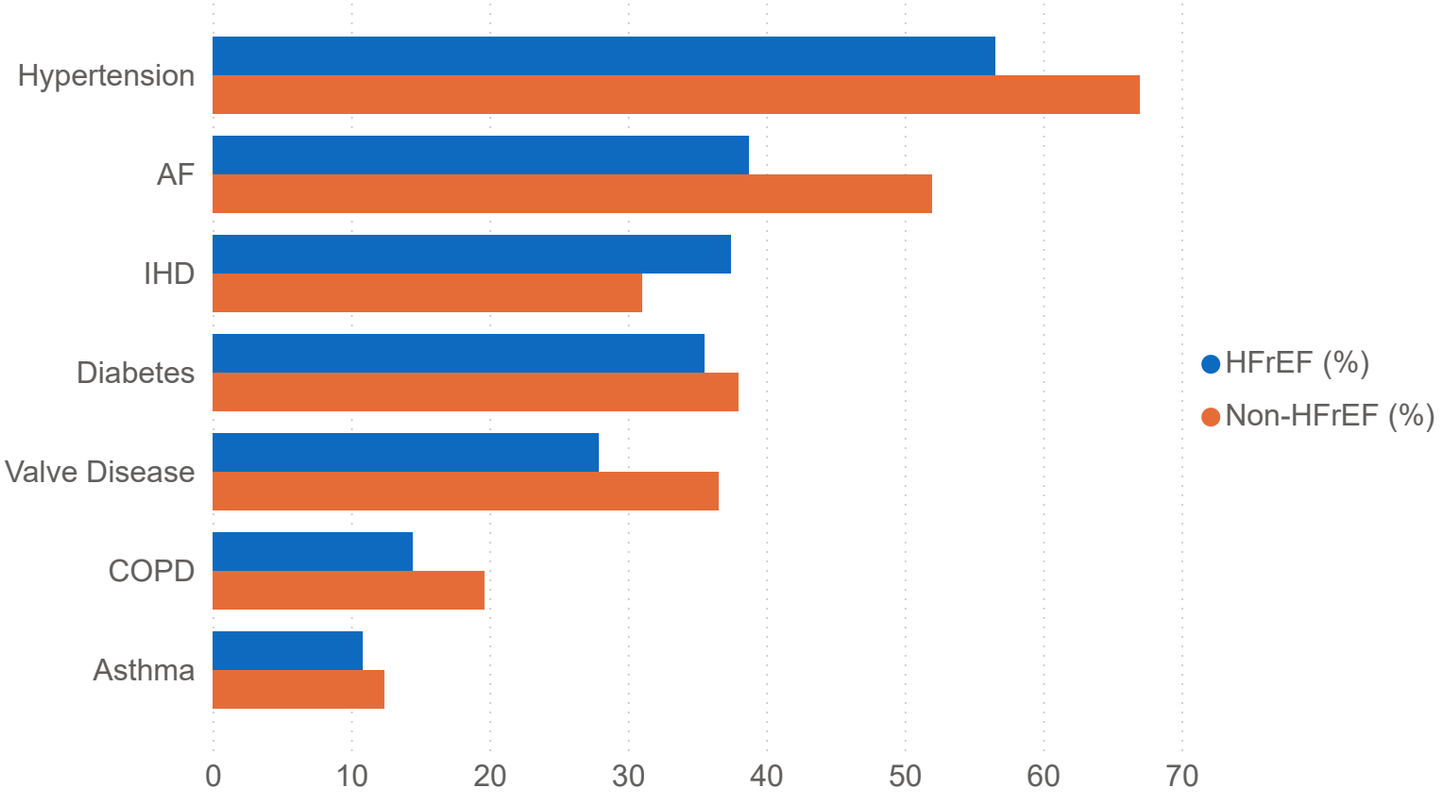
HF patients with an ejection fraction greater than 40% have more associated diagnoses such as hypertension and atrial fibrillation

Non-HFrEF patients had higher rates of hypertension, atrial fibrillation (AF), valve disease and chronic obstructive pulmonary disease (COPD) in 2024/25. This pattern is consistent with findings from previous audit reports.

Ischaemic Heart Disease (IHD) is more common in HFrEF patients.

Key:
AF = Atrial Fibrillation
IHD = Ischaemic Heart Disease
COPD = Chronic Obstructive Pulmonary Disease

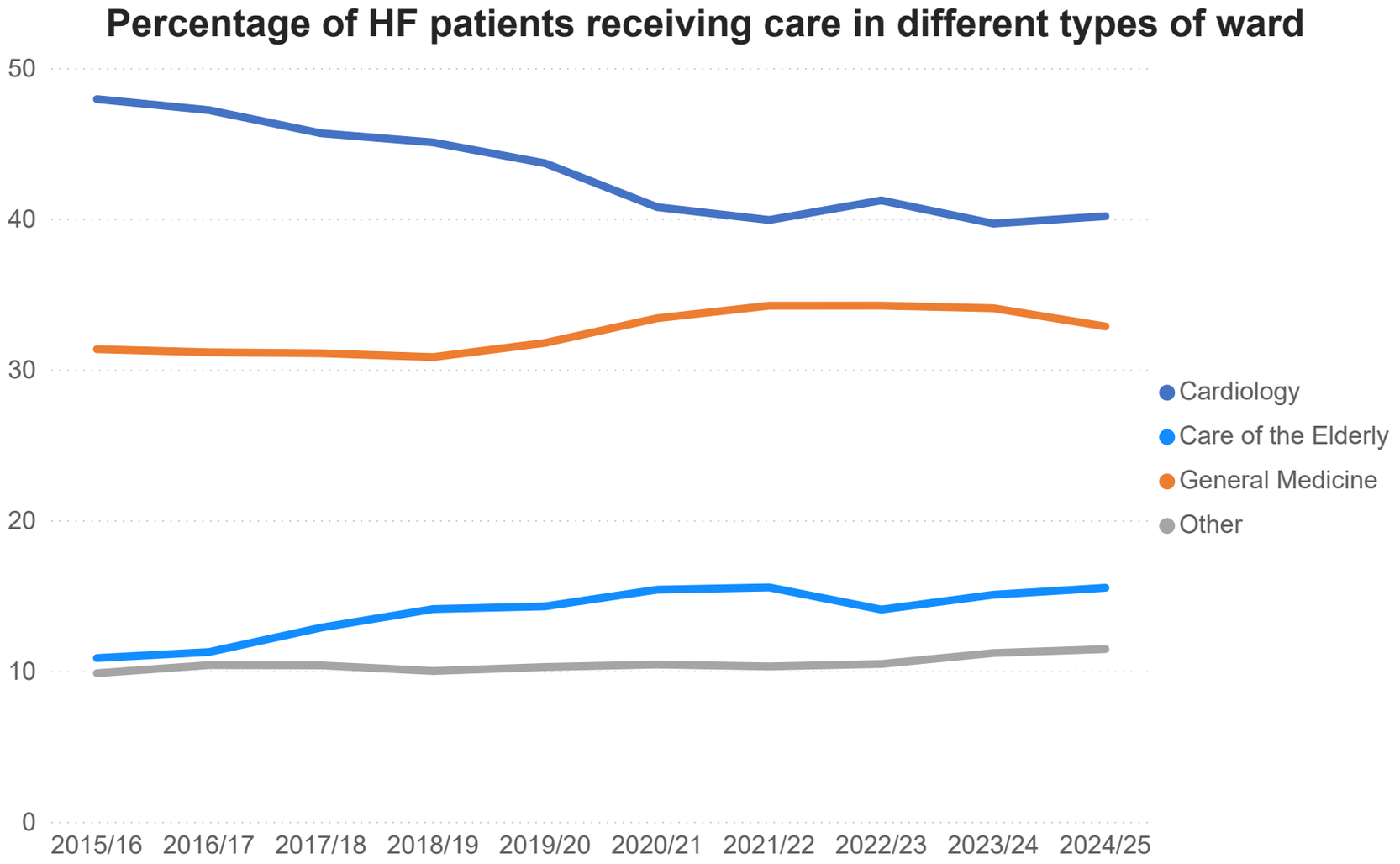
Percentage of HFrEF and non-HFrEF patients with associated conditions (2024/25)



The proportion of HF patients admitted to a cardiology ward remains at around 40%

There has been little change in the place of care for HF patients, with 40% being placed on a specialist cardiology ward.

The audit target is that 60% of all patients admitted with heart failure (HF) should have their care on a cardiology ward.

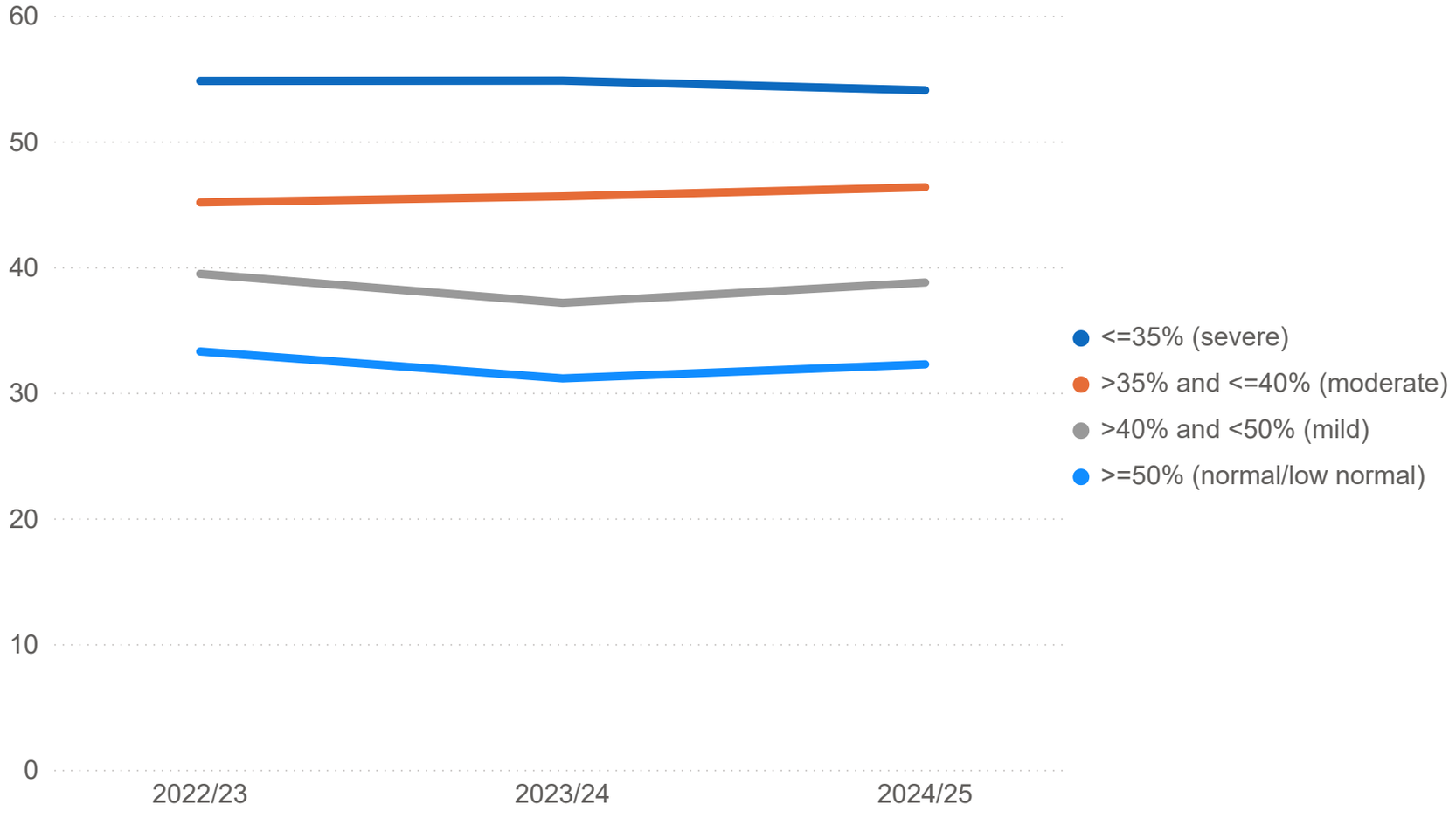


Patients with the most severe LV dysfunction are more likely to be admitted to a cardiology ward

Patients with more severe LV dysfunction appear to be prioritised for admission to a specialist cardiology ward.

However, across patient groups with different levels of left ventricular ejection fraction, none meet the audit target for 60% of patients to have their care on a cardiology ward.

Percentage of HF patients receiving care in a cardiology ward by LV function over time

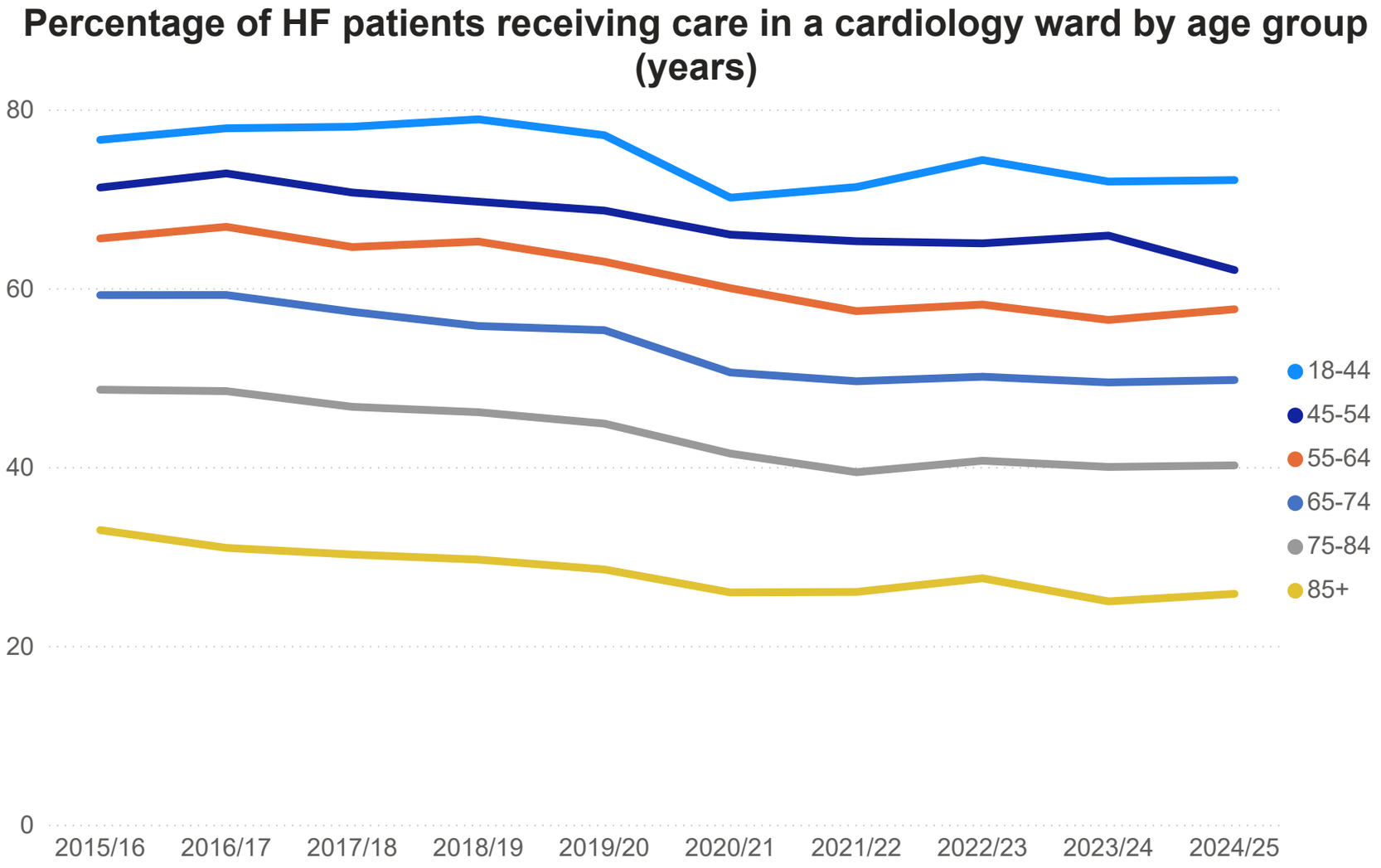


Younger patients are more likely to be admitted to a cardiology ward

Much higher proportions of younger patients received their care on a specialist cardiology ward.

The audit target for 60% of patients to have their care on a cardiology ward is not being met for patients aged 55 and above.

Care on a cardiology ward is associated with better outcomes including diagnosis, inpatient care and lower mortality.



Relatively few hospitals meet the target of having 60% of patients receiving their care on a cardiology ward

34 out of 184 hospitals achieved the target of having 60% of HF patients cared for on a cardiology ward.

Select a cardiac network or hospital below to see its data.

Note: Data are based on those hospitals reporting 20 cases or more.

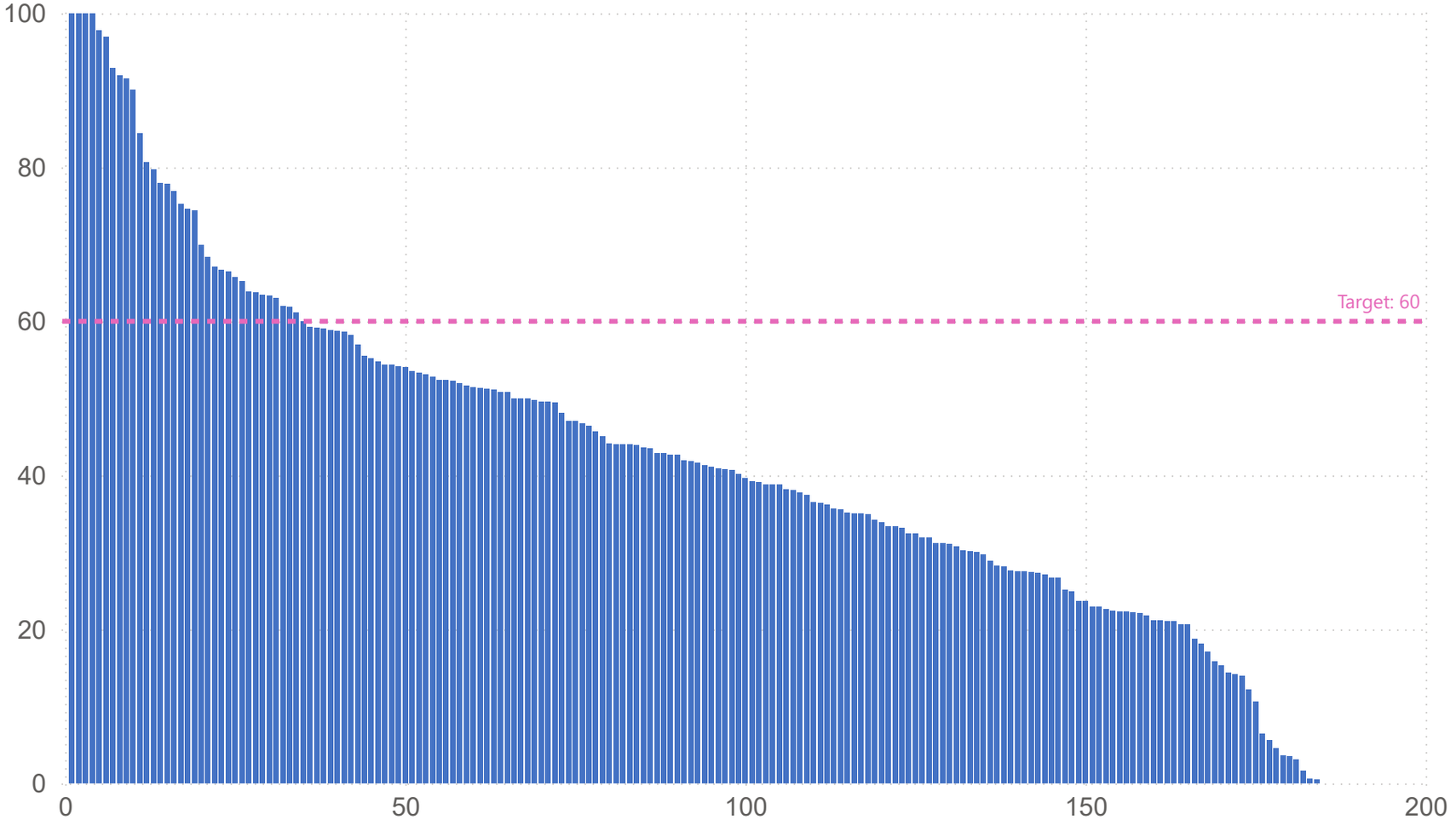
Select a cardiac network

All

Select a hospital

All

Percentage of HF patients receiving care in a cardiology ward by hospital



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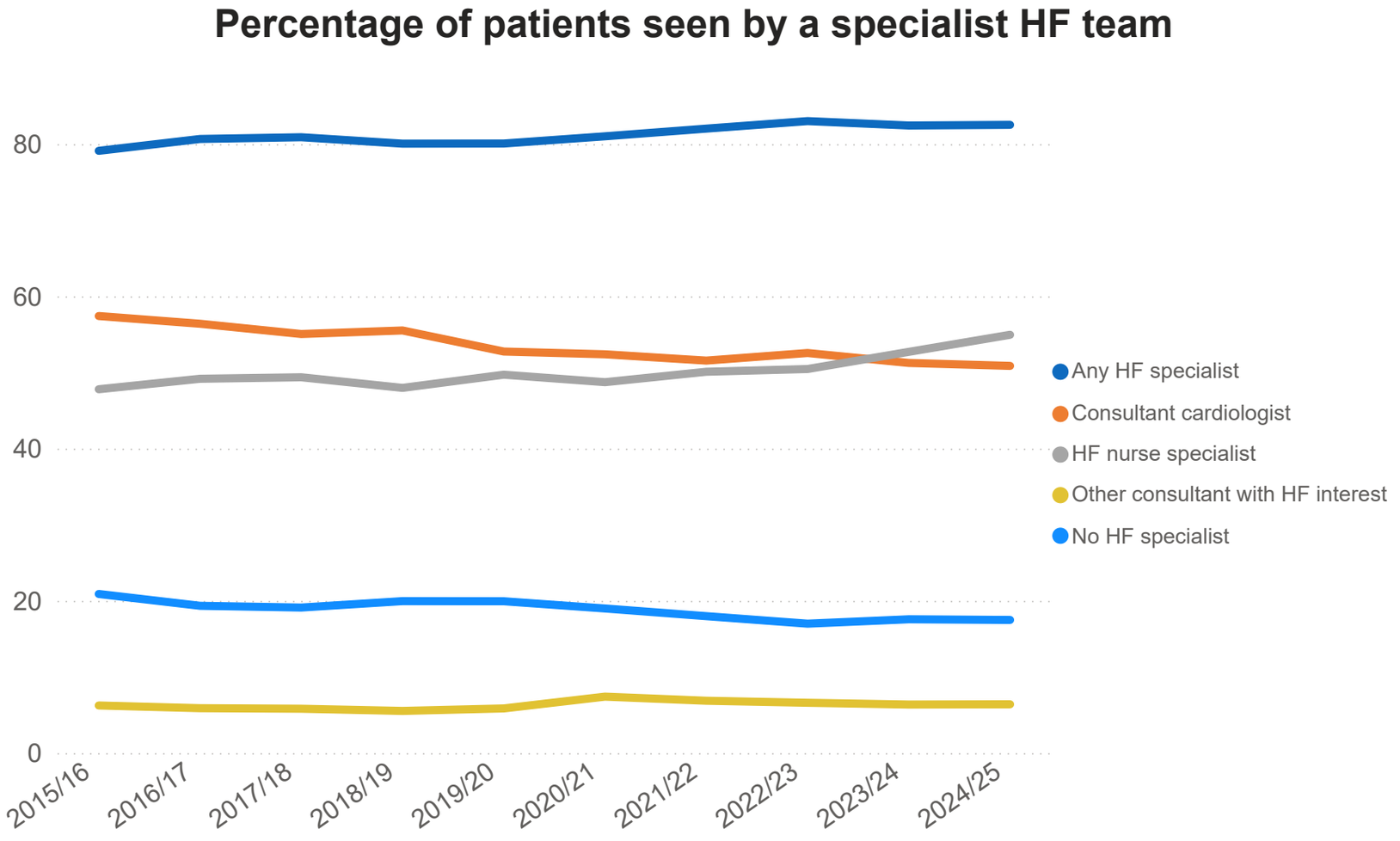
The majority of patients with heart failure are seen by a specialist HF team

In 2024/25, 83% of patients were seen by a specialist HF team. Although there has been a small increase over time, there has been no significant improvement since 2022/23.

Access to specialist HF care (by cardiologists and specialist HF nurses) is associated with better treatment of patients on discharge and lower in-hospital and subsequent out-of-hospital mortality.

Whilst NICE guidance advocates that all these patients receive early and continuing specialist input, the current audit quality improvement (QI) target is that 90% of all those admitted with acute HF should have specialist input.



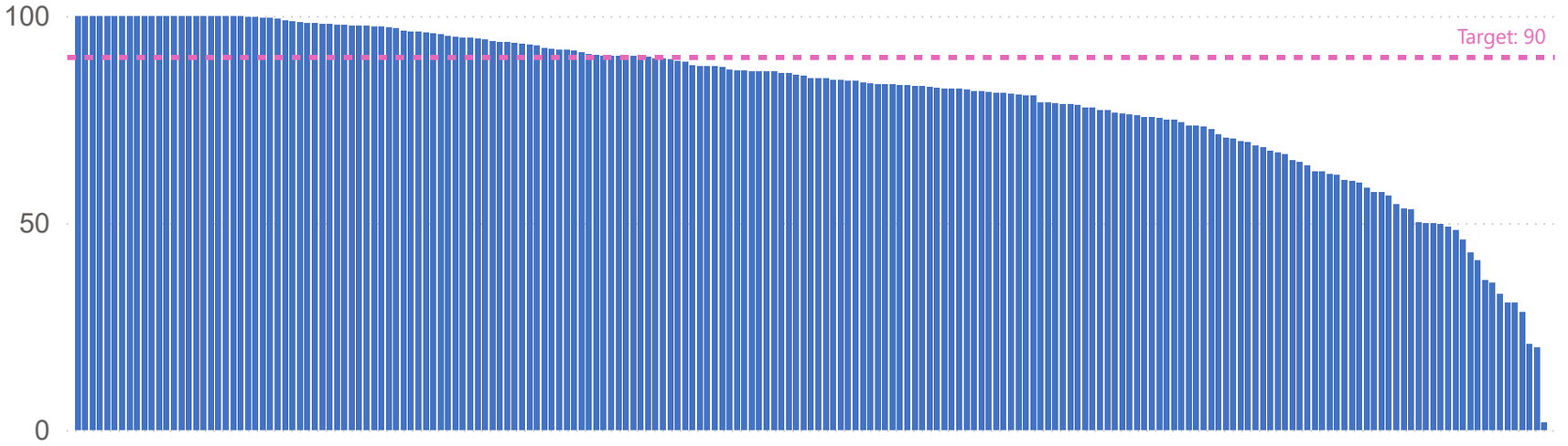
There is substantial variation by hospital in the proportion of patients receiving specialist input

In 2024/25, 81 out of 199 hospitals ensured that at least 90% of HF patients were seen by a specialist HF team.

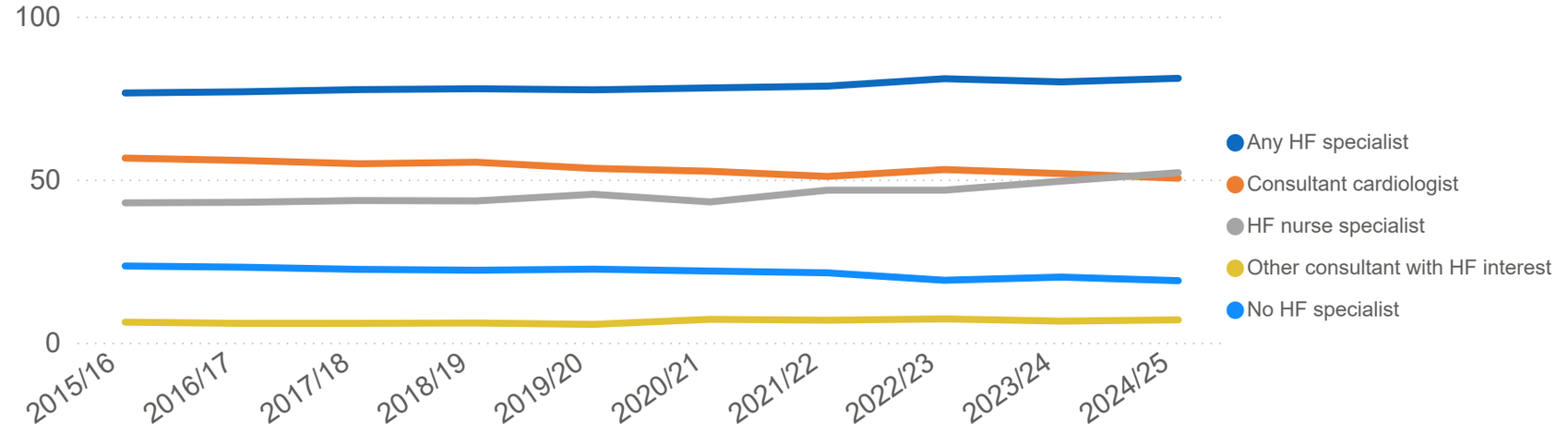
Hover over the bars in the top graph or select a cardiac network or hospital below to see specific data.

Note: Data from hospitals submitting fewer than 20 cases were excluded.

Percentage of patients seen by a specialist HF team by hospital



Percentage of patients seen by a specialist HF team



Select a Cardiac Network

All

Select a hospital

All

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Fewer patients with non-HFrEF receive specialist input than those with HFrEF

78% of patients with non-HFrEF received specialist input in 2024/25 compared with 87% of HFrEF patients. This is seen for both consultant cardiologist and HF nurse specialist care.

As there are now disease-modifying treatments available for non-HFrEF patients, HF specialist teams should aim to provide input into their care.

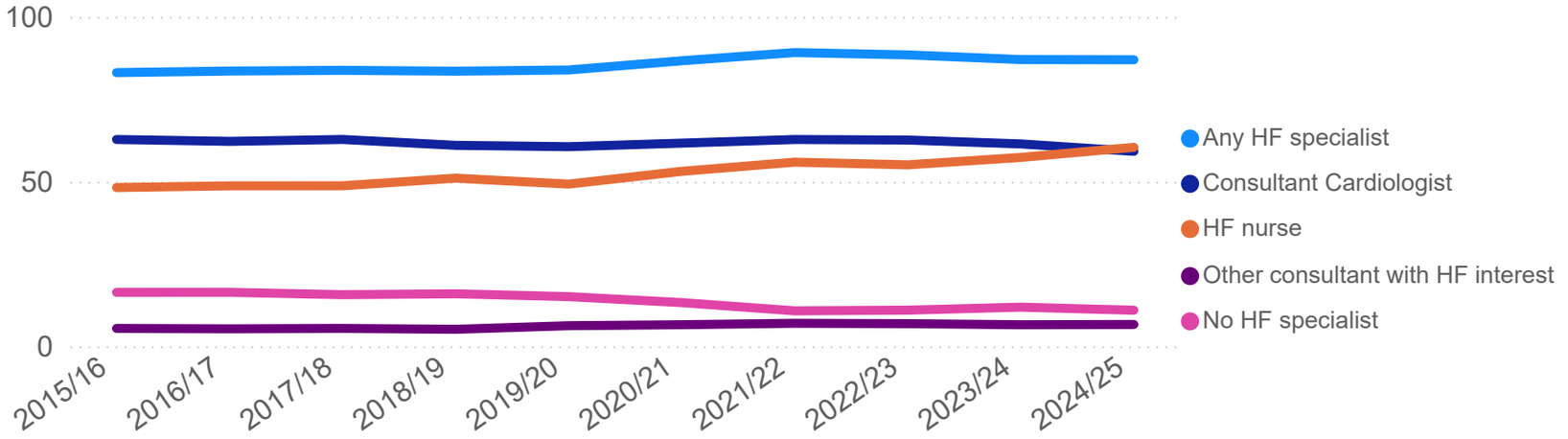
Select a Cardiac Network

All

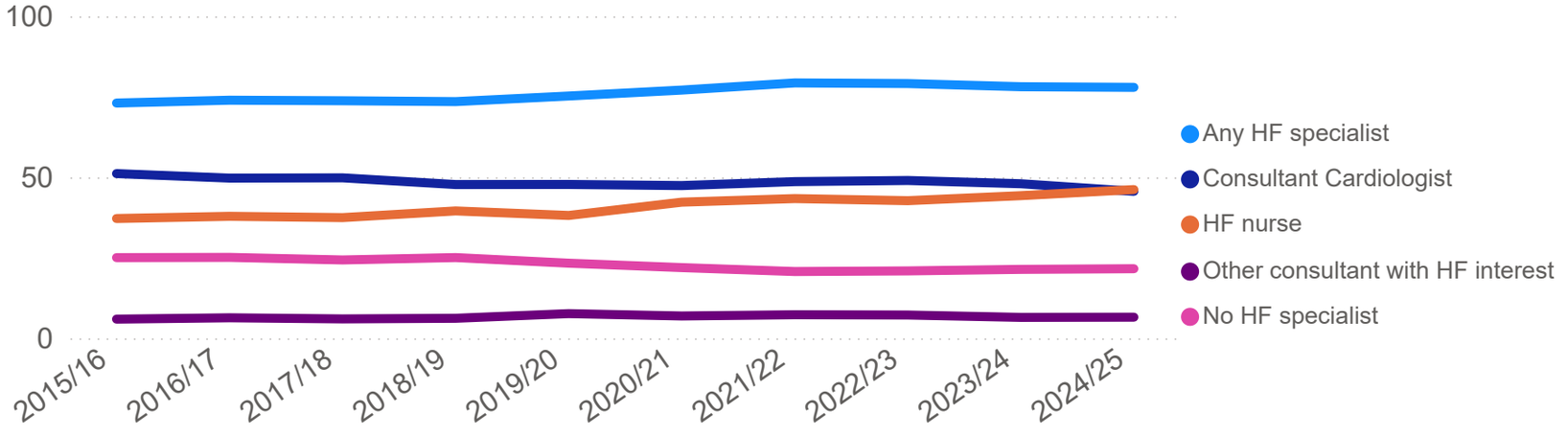
Select a hospital

All

Percentage of patients seen by a specialist HF team (HFrEF)



Percentage of patients seen by a specialist HF team (non-HFrEF)



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Only a third of hospitals reached the audit target for proportion of non-HFrEF patients to receive specialist input

128 out of 188 hospitals ensured that over 90% of HFrEF patients received specialist input.

At least 90% of non-HFrEF patients were given specialist input in only 59 out of 190 hospitals.

Differing numbers reflect data submission numbers for HFrEF and non-HFrEF.

Hover over a bar in the charts or select a cardiac network or hospital below to specific its data.

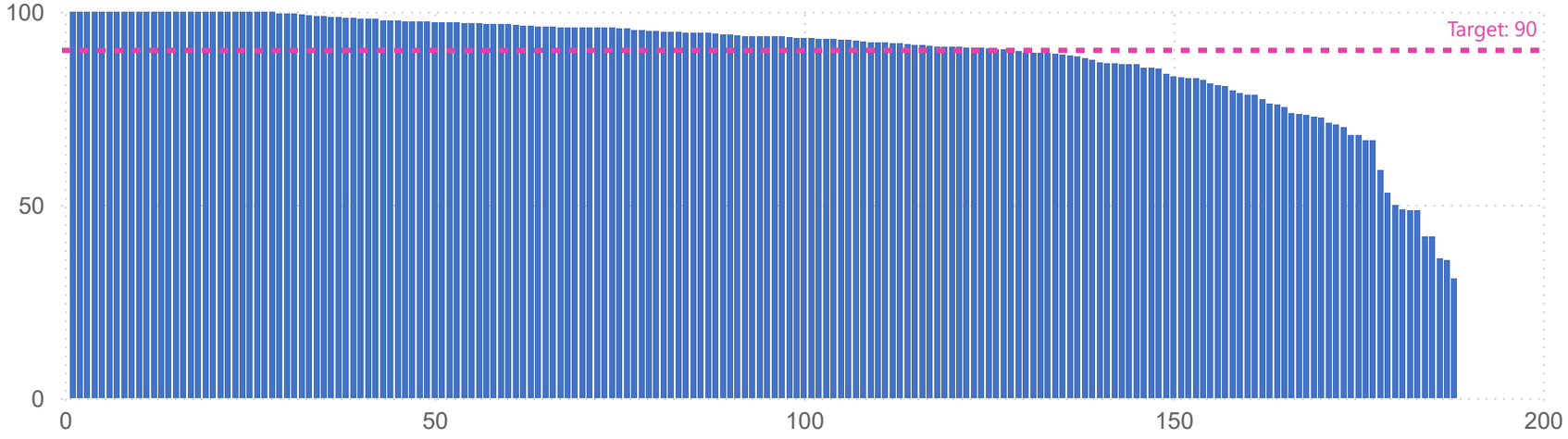
Select a Cardiac Network

All

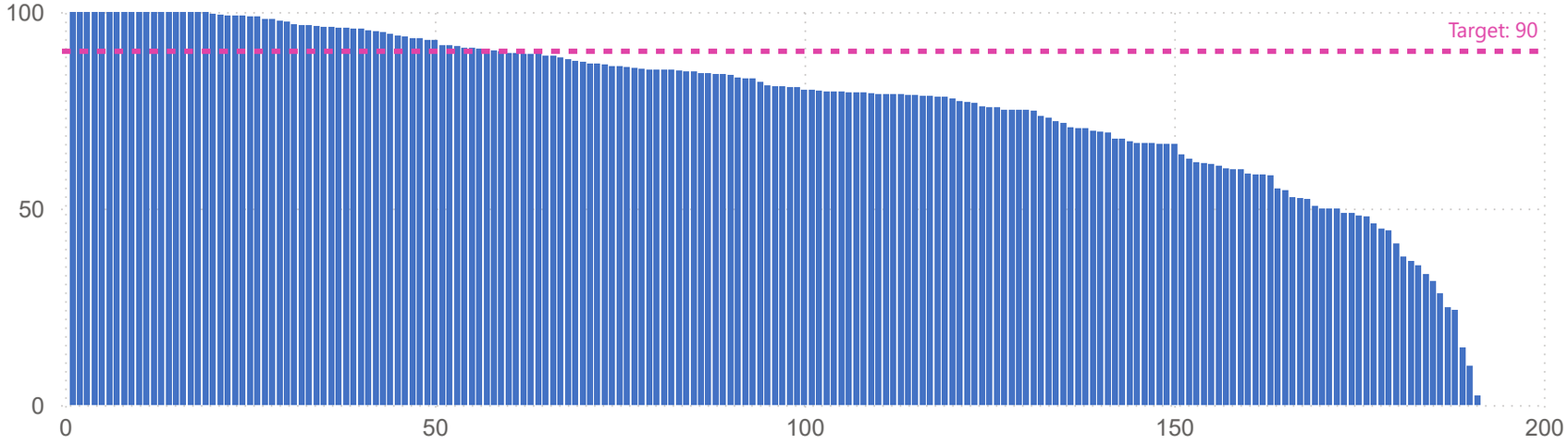
Select hospital

All

Percentage of patients receiving any specialist input for HFrEF (2024/25)



Perentage of patients receiving any specialist input for non-HFrEF (2024/25)



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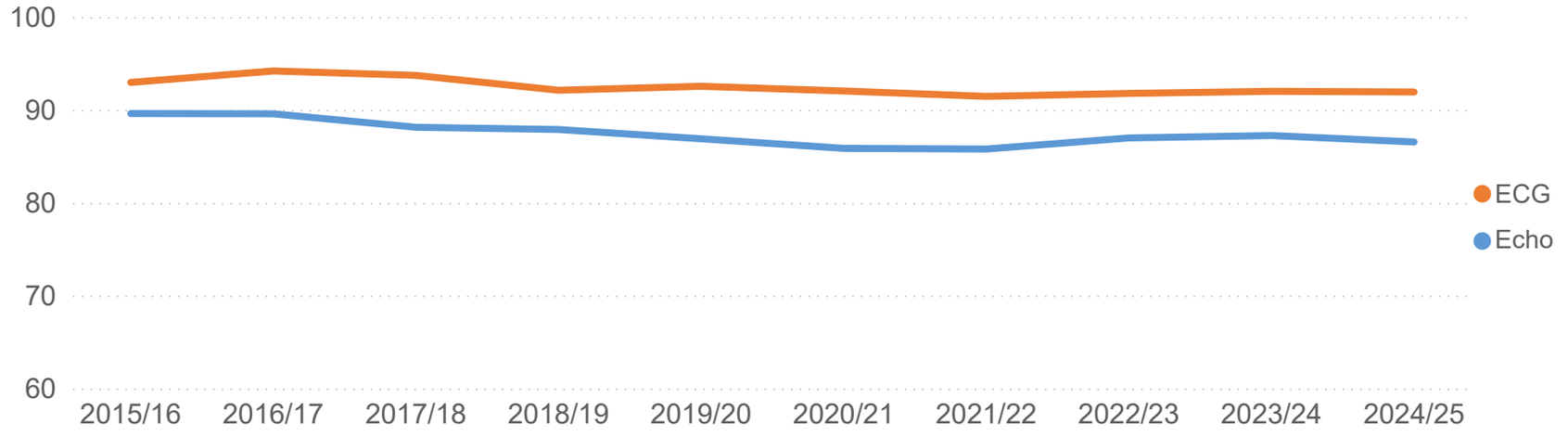
The percentage of HF patients investigated with an ECG and echocardiography did not improve in 2024/25

The use of echocardiography continued to be below the audit target in 2024/25. The audit quality improvement (QI) target is that 90% of patients should be investigated with echocardiography. NICE emphasises the need for this to be undertaken early and ideally within 2 days of admission.

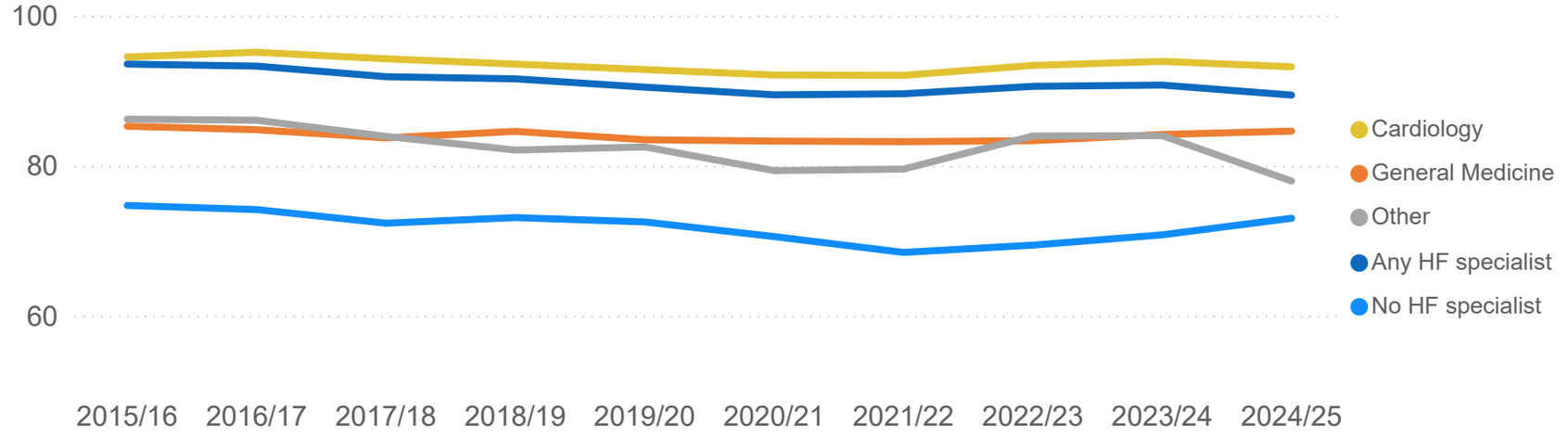
HF patients on cardiology wards and those who are seen by a specialist cardiology team are much more likely to have an echocardiogram.

Inpatient echocardiography and electrocardiography are essential for an accurate diagnosis of HF and its phenotype (i.e. observable properties and characteristics) and help determine optimal care.

Percentage of patients receiving an ECG and echocardiography



Percentage of patients receiving echocardiography by place of care or specialist involvement



Half of hospitals do not use echocardiography as frequently as they should

Nearly half of hospitals failed to meet the 90% target for the use of echocardiography in 2024/25.

Hover over the chart or select a cardiac network or hospital below to see specific data.

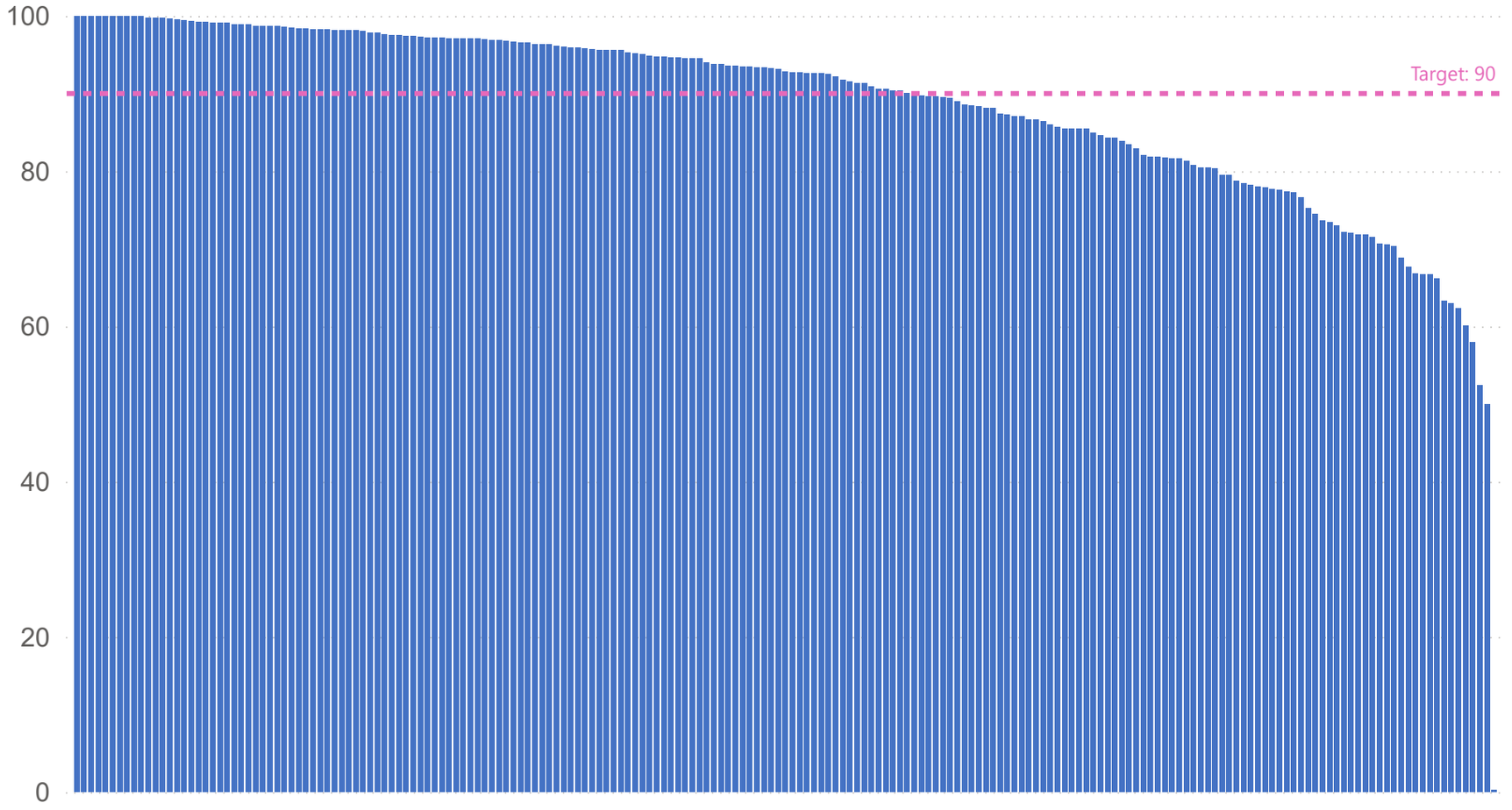
Select a Cardiac Network

All

Select hospital

All

Percentage of HF patients in England and Wales undergoing echocardiography by hospital in 2024/25



NICOR

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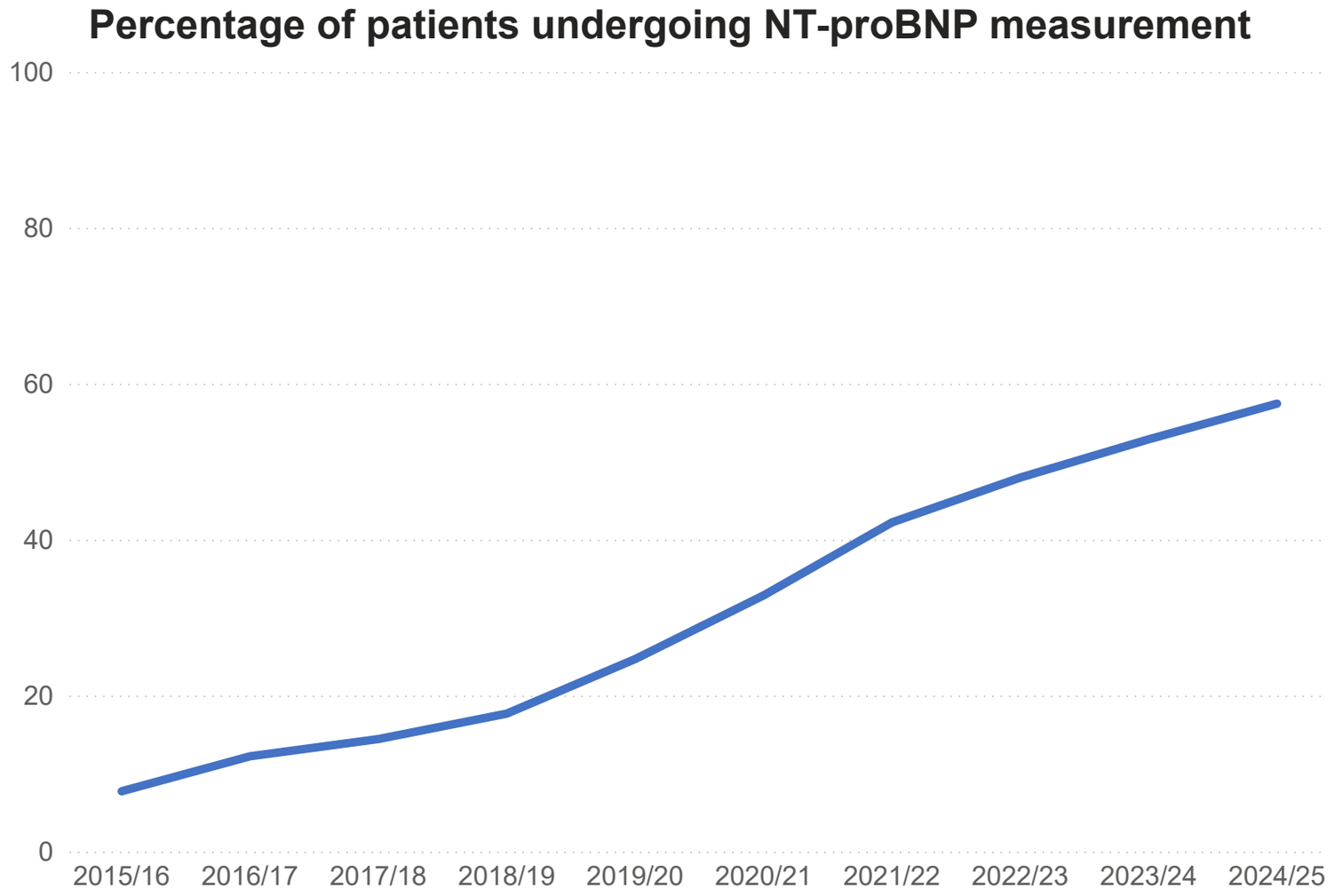
Measurement of Natriuretic Peptide has improved over time

Measurement of Natriuretic Peptide (NP) was undertaken for 57% of patients in 2024/25, surpassing the audit target level.

NP measurement is recommended in people admitted with suspected acute heart failure who have no pre-existing diagnosis. This should apply to around 50% of all admissions.

N-terminal pro-B-type natriuretic peptide (NT-proBNP) is the most frequently measured NP in the NHS.



Most patients have an NT-proBNP of more than 4,000 pg/ml

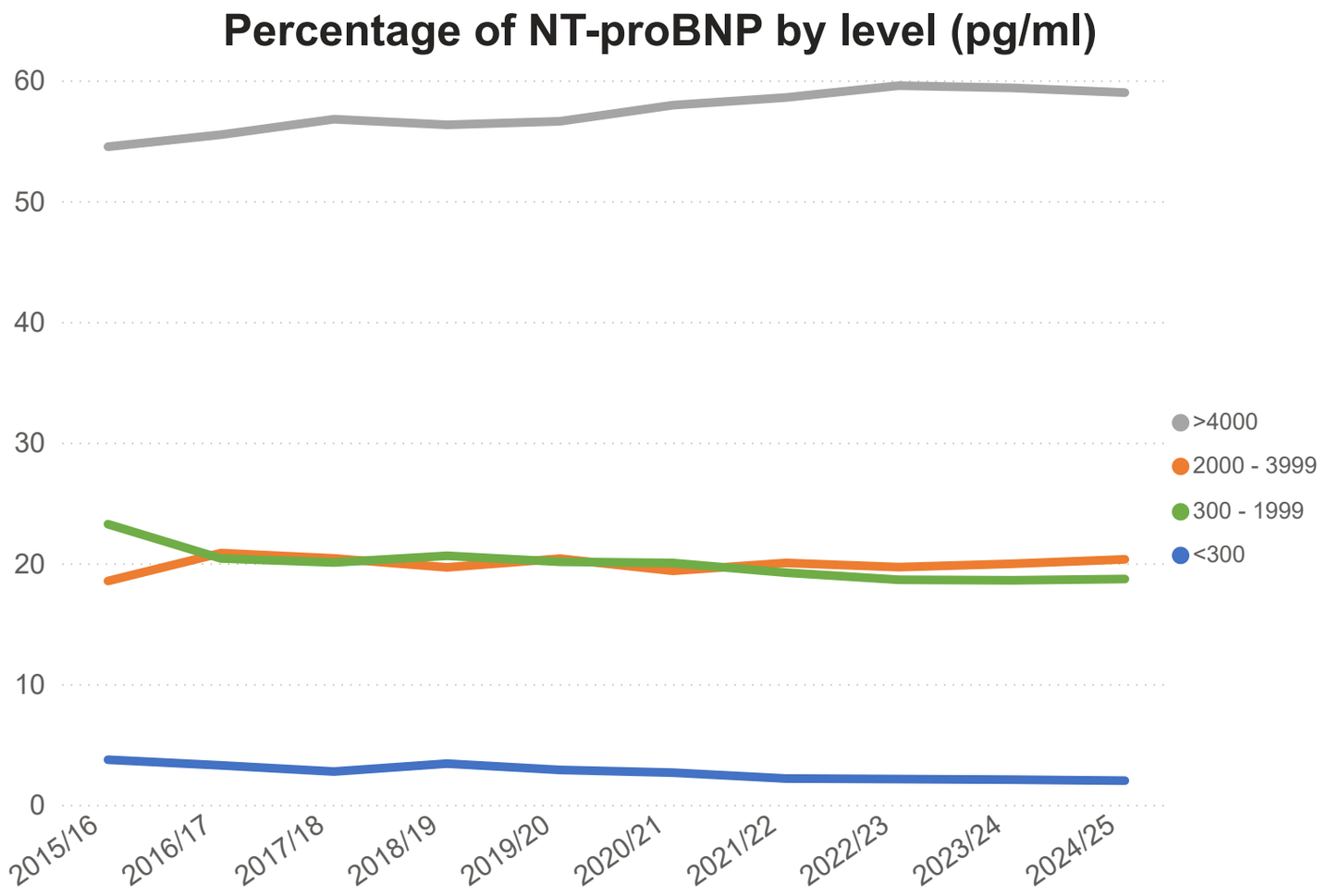
A raised level of NT-proBNP indicates the need for echocardiography and clinical assessment (increased concentrations can also be caused by other conditions).

The NICE acute heart failure guideline update of 2021 recommends using a cut point of <300 ng/l to largely exclude HF (https://www.nice.org.uk/guidance/cg187).

It is reassuring that of the patients admitted with suspected new HF, only 2% had levels below this cut-point:

- **19% had concentrations of 300 - 1999 ng/l**
- **20% had 2000 - 3999 ng/l**
- **58% had levels of 4000 ng/l or more.**

The higher the concentration the worse the outlook without optimal care



More patients with HFrEF are receiving drug therapy that improves longer-term outcomes

4 key disease-modifying drugs are now recommended in patients with HFrEF and include an SGLT2i drug alongside an MRA, a Beta Blocker and an ACEi or ARNI or ARB (see link for full names of these drug classes).

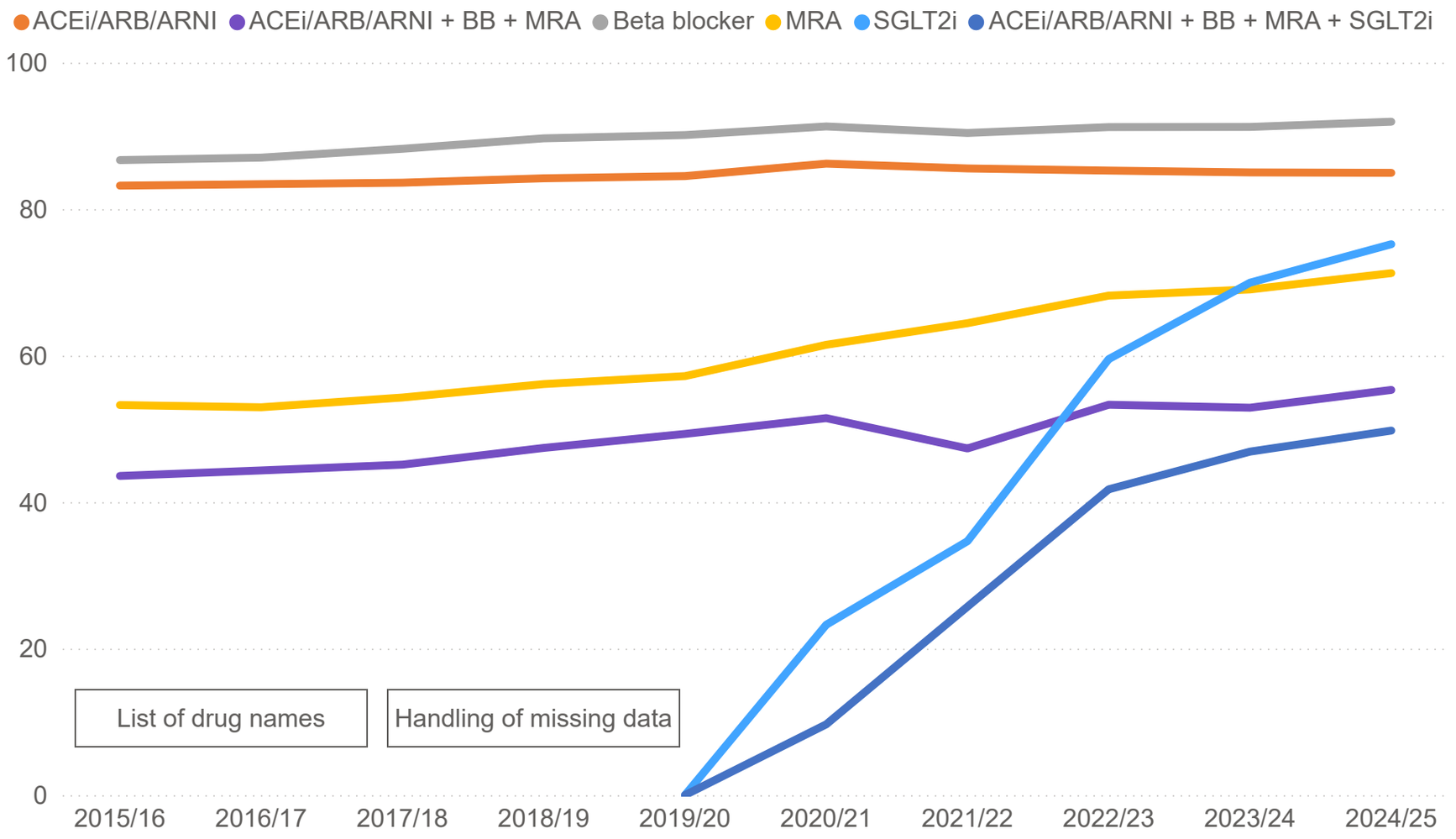
These drugs have been described as the 4 pillars of optimal care for these patients.

The audit quality improvement (QI) target for prescribing of all these drugs/combinations has increased to 90% for all eligible patients with HFrEF (i.e. those with an EF of 40% or less and without a contraindication). To achieve this target there needs to be improved prescribing of all 4 drugs, including MRAs.

The 92% prescribing rate of a BB meets the audit target. ACEi/ARNI/ARB rates are unchanged at 85%, whilst prescribing of an MRA has increased by 2% to 71%, and that of an SGLT2i by 5% to 75%.

Hover over each line to see specific data.

Percentage of patients with HFrEF prescribed different drug treatments



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There is scope for considerable improvement in data quality for drug reporting

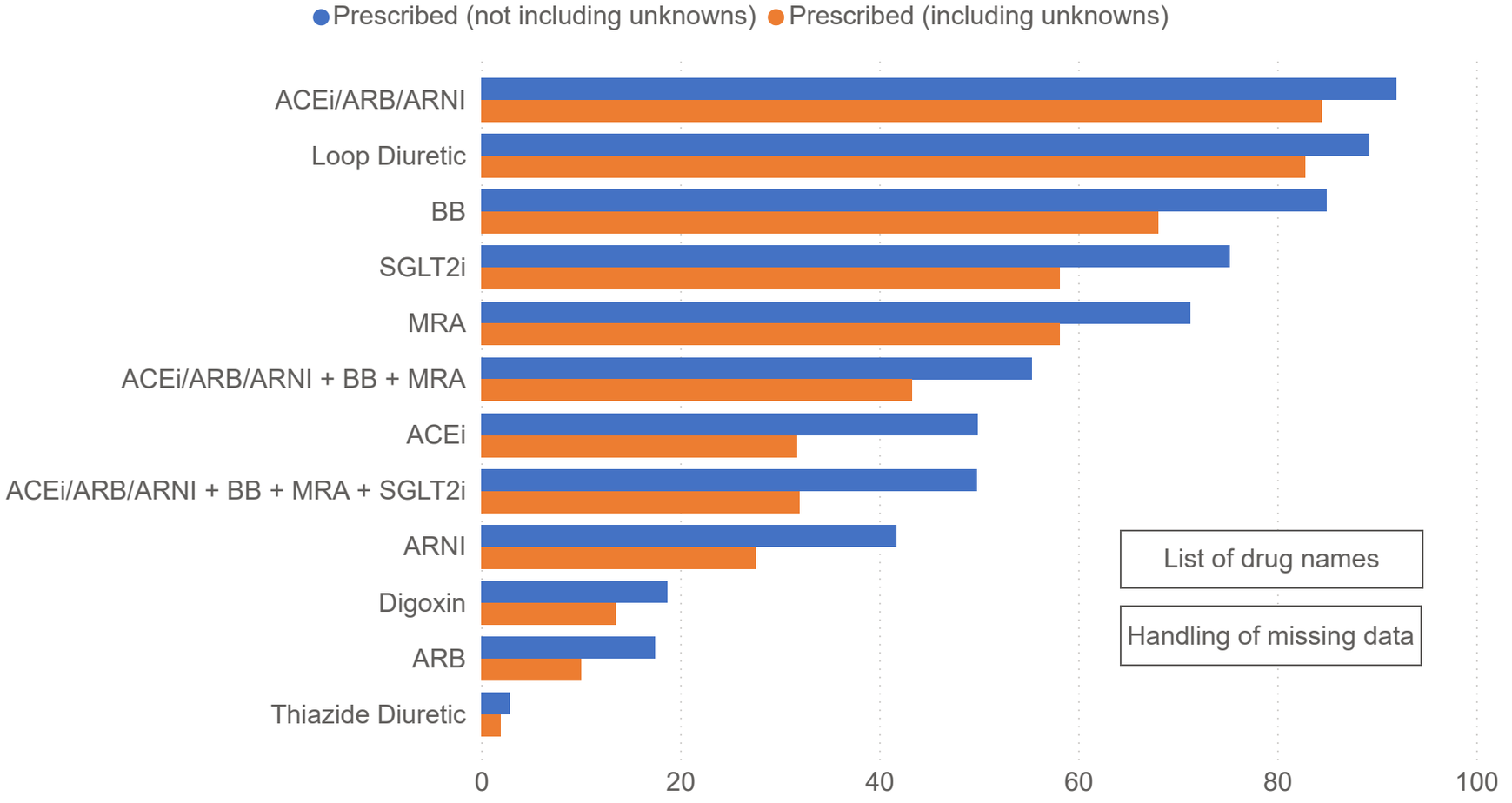
The calculation of drug prescribing rates for patients with HFrEF have until now always excluded submissions where the hospital responded ‘unknown’.

Consequently, this has the potential to overstate the reported prescription rates. Since 2021/22, these ‘unknown’ responses have been included as ‘no’, reducing the achieved rates.

This emphasises the importance of making certain that prescriptions at discharge are accurately completed for all cases submitted to the audit.

Data quality still requires improvement.

Percentage of patients with HFrEF prescribed different recommended disease-modifying drugs with and without 'unknowns' in denominator (2024/25)



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Disease-modifying drug treatments for HFrEF are prescribed less often in older patients

All patients, regardless of age, should be considered for treatment with disease-modifying drugs but their prescription seems dependent on age.

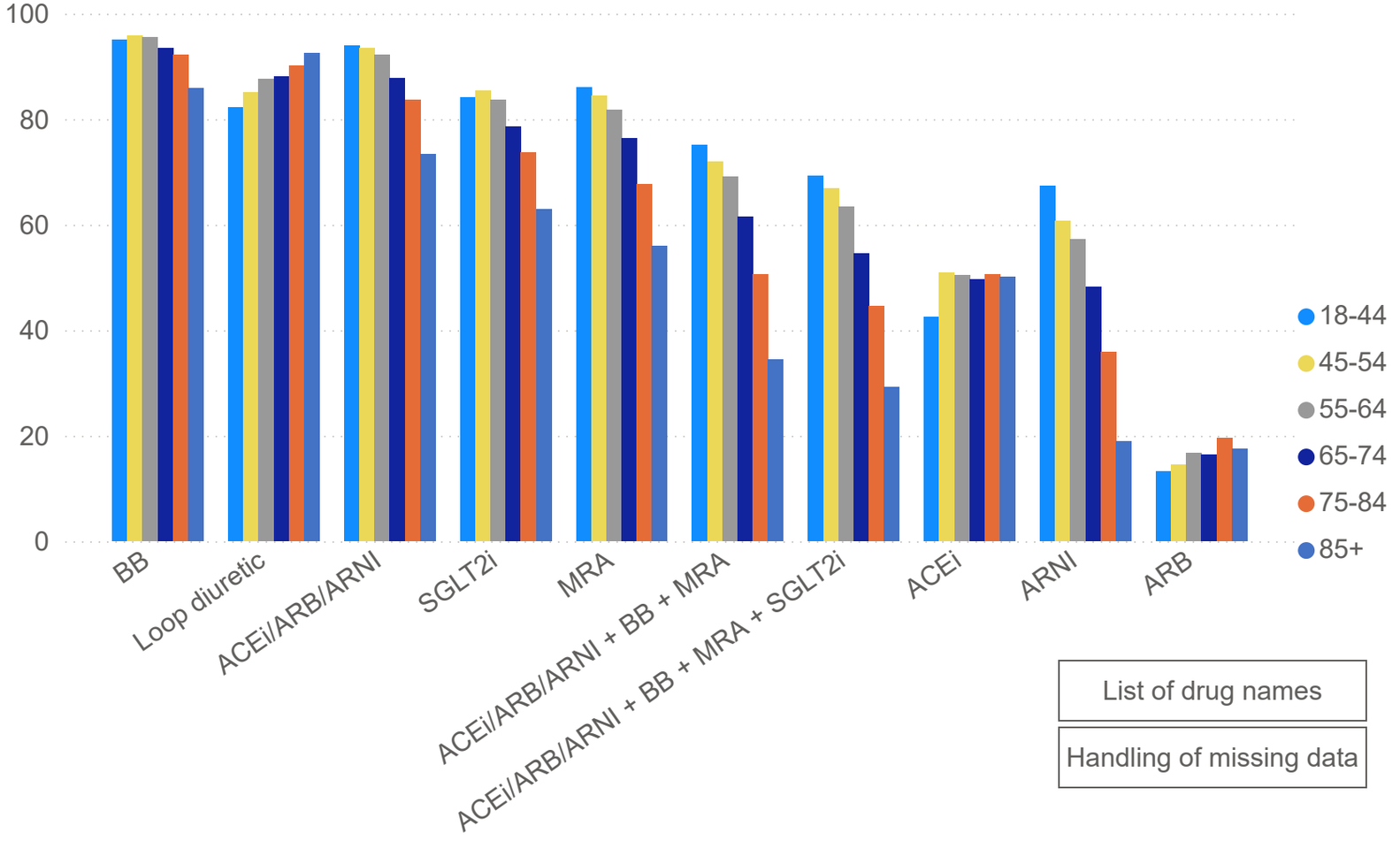
The inflexion point for the reduction in prescription of most of these drugs is in the 55-64 age group. This is greatest for MRA use, but much less pronounced for BBs, which are prescribed in 85% of patients aged 85 and above.

Loop diuretics, in contrast, are commonly prescribed to all but especially to older patients who are less likely to receive the other drug classes.

Paradoxically this class may be poorly tolerated in older patients, whereas the introduction of the other drugs may obviate the need for loop diuretics in those with HFrEF.

It is a concern that clinicians might be holding back from prescribing for these patients because of fears of an adverse effect. Increasing specialist input in the older patients, who are often not on the cardiology wards, is recommended.

Percentage of patients receiving different drug treatments by age group (years) (2024/25)



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Drug treatment for HFrEF is prescribed less frequently to women

Most drug treatments for HFrEF are prescribed less frequently in women than men.

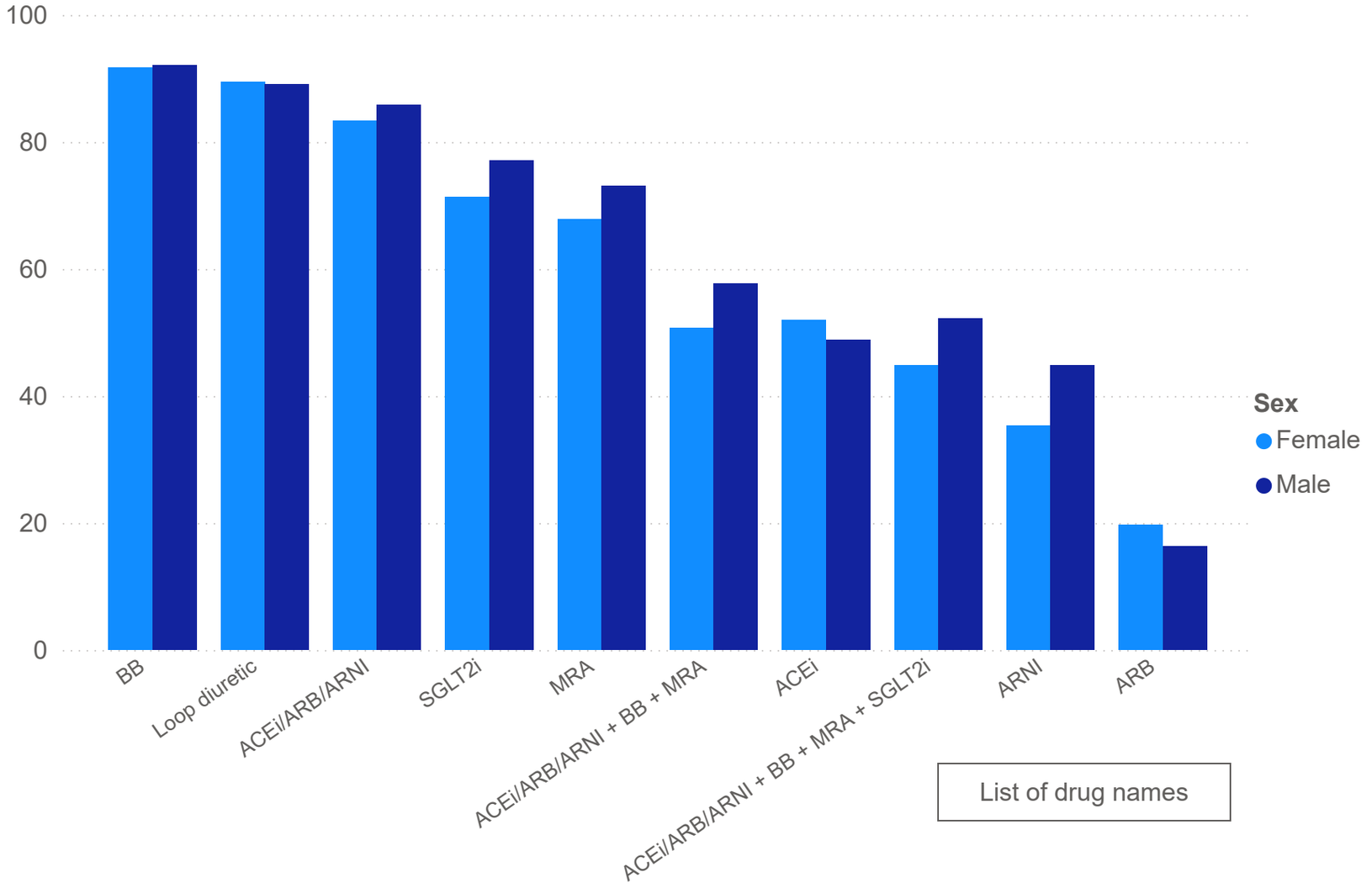
Some of the discrepancy in under-prescribing for women is attenuated by age adjustment but the gap remains for most disease-modifying treatments. There may be other clinical reasons for the discrepancy.

Select the rate metric below to see the relevant data.

Select metric

- ○ Age-standardised rate
- ◉ Actual rate

Percentage of patients with types of HF treatment by patient sex (2024/25)



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Prescription of the 4 disease-modifying drugs in people with HFrEF varies substantially by area

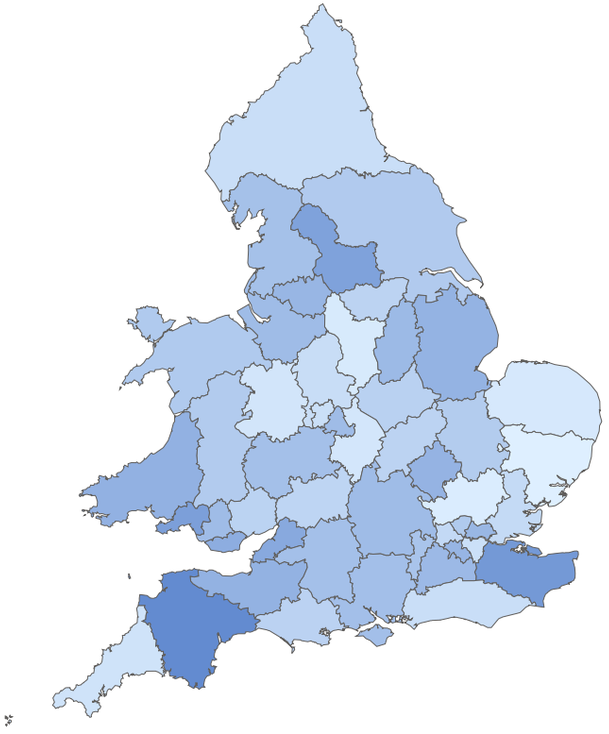
The maps show the prescribing rates for all 4 standard disease-modifying drugs across:

- the 42 Integrated Care Boards (ICBs) in England
- the 7 University Health Boards (HBs) in Wales (commissioning organisations)
- the 16 Cardiac Networks (operational delivery networks).

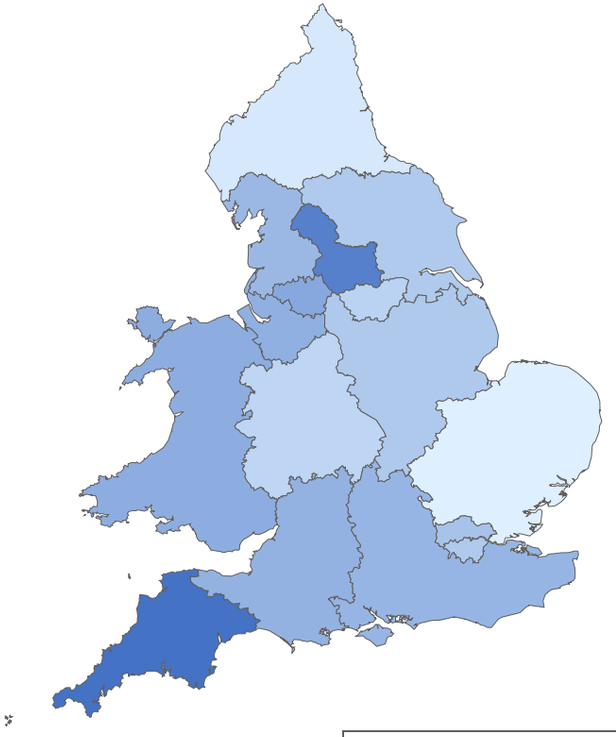
Prescribing rates of all 4 standard outcome-improving drugs (ACEi/ARB/ARNI + BB + MRA + SGLT2i) vary significantly between 24% and 86%.

Hover over the maps to see specific data (darker areas = higher prescribing levels).

ACEi/ARB/ARNI + BB + MRA + SGLT2i prescribing rates at discharge based on patient home location by ICB/HB (2024/25)



ACEi/ARB/ARNI + BB + MRA + SGLT2i prescribing rates at discharge based on hospital location by Cardiac Network (2024/25)



List of drug names

Handling of missing data

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The prescribing rates of ACEi/ARB/ARNI in patients with HFrEF are well maintained, but should be better

Most hospitals are failing to meet the audit minimum standard of prescribing an ACEi/ARB/ARNI for 90% of patients admitted with HFrEF, unless there is a clear contraindication.

Data quality needs to improve on this metric.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Data are from 192 hospitals. Hospitals reporting fewer than 20 cases are excluded from the denominator.

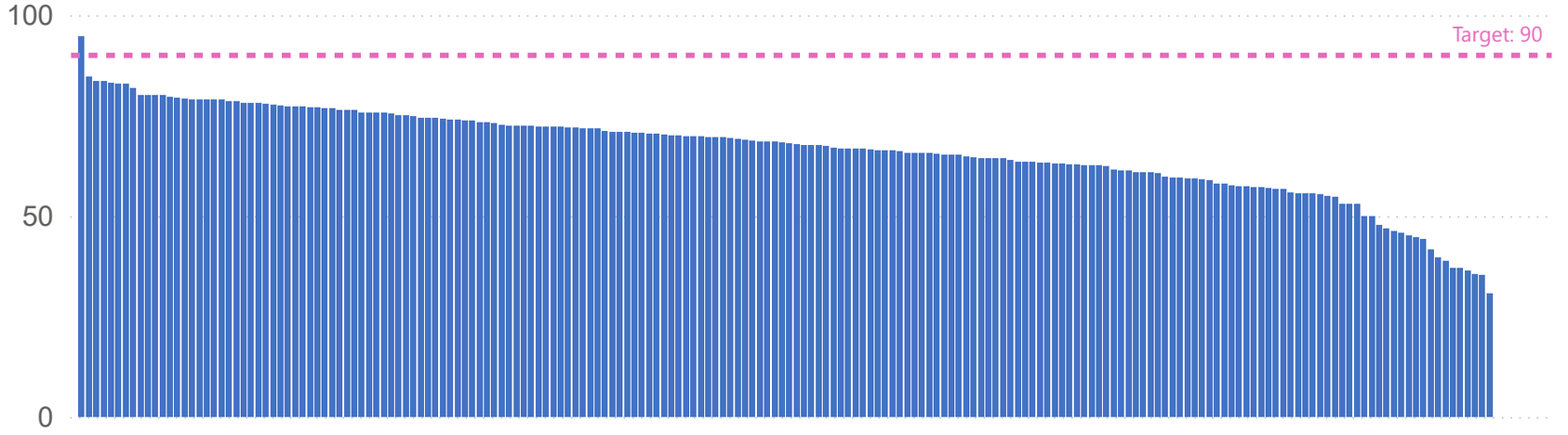
Select a Cardiac Network

All

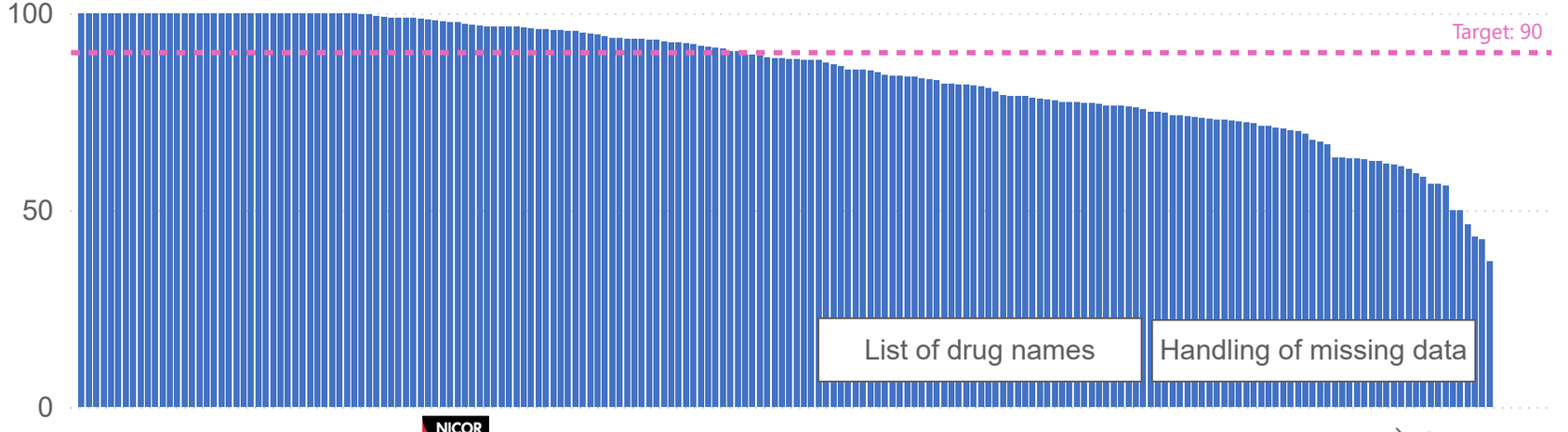
Select hospital

All

Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI by hospital in 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI by hospital in 2024/25 (excluding unknowns)



Beta blocker prescribing in people with HFrEF remains high, but there is still scope for improvement

More hospitals are meeting the minimum standard for beta blocker prescribing and there has been an improvement in data quality.

The audit target for beta blockers is that the hospital should prescribe a drug in this class in 90% of patients with HFrEF, unless there is a strong contraindication.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Data are from 192 hospitals. Hospitals reporting fewer than 20 cases are excluded from the denominator.

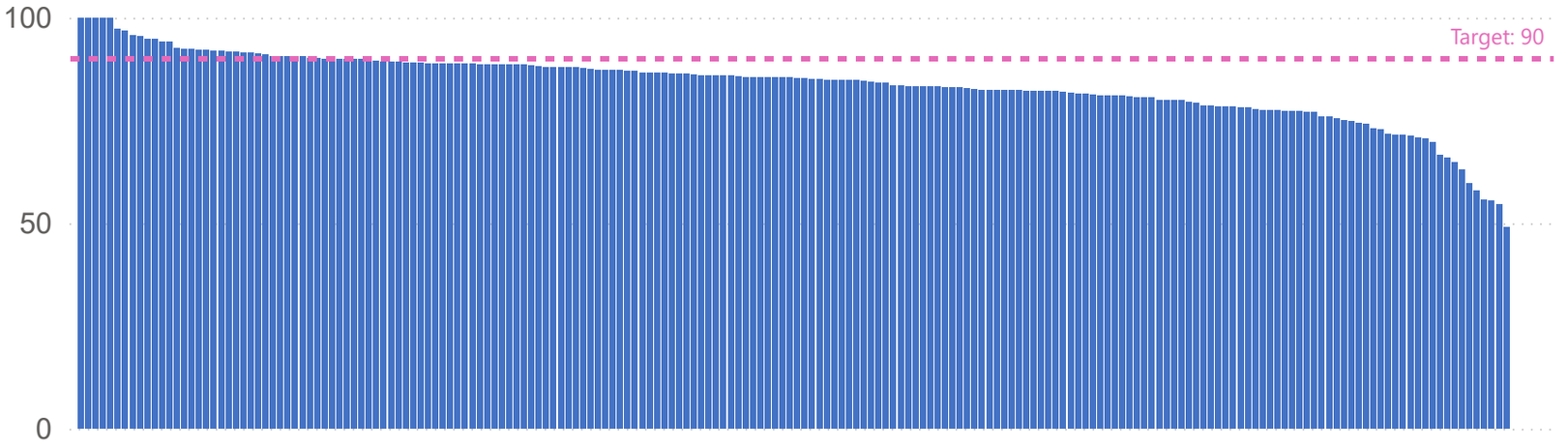
Select a Cardiac Network

All

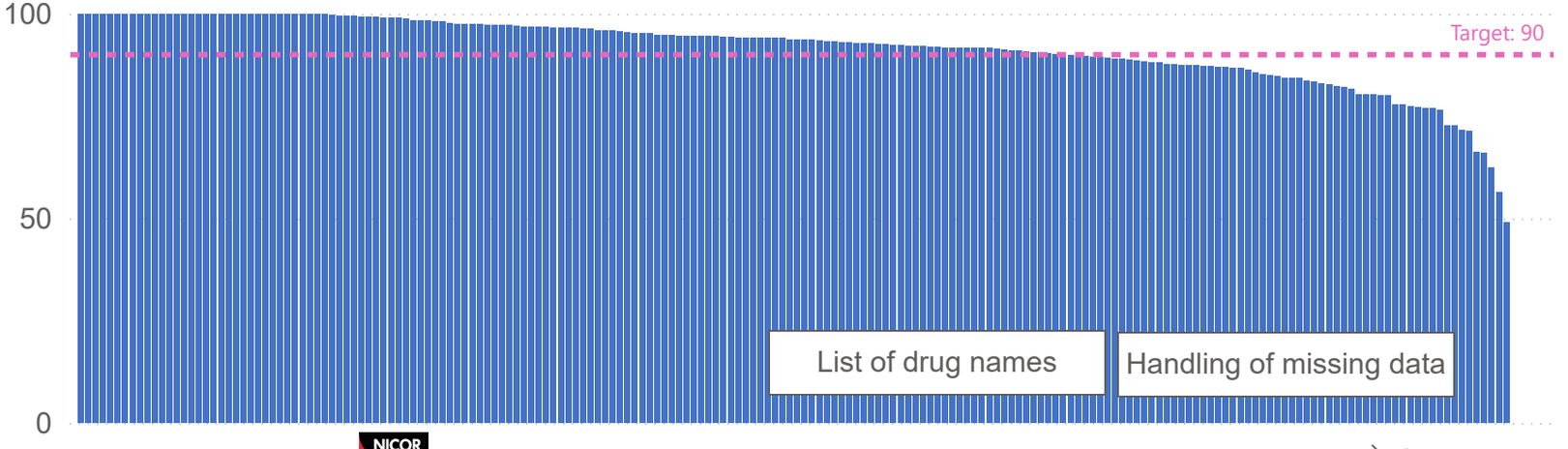
Select hospital

All

Percentage of patients with HFrEF receiving a Beta Blocker by hospital in 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving a Beta Blocker by hospital in 2024/25 (excluding unknowns)



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Mineralocorticoid receptor antagonist (MRA) prescribing in HFrEF remains unacceptably low at 71% compared with the audit target of 90%

Although MRA prescribing rates have improved, they remain substantially below the target of 90% of patients being prescribed this class of drug in most hospitals

In acute heart failure patients with HFrEF, early introduction of an MRA can help control fluid and avoid acute falls in potassium (K+) levels. Furthermore, early introduction of small amounts of all four drug classes in HFrEF is now recommended, including an MRA.

Both strategies should increase effective MRA prescribing which results in improved LV function, reduced hospital readmission and avoidance of life-threatening arrythmias and premature death.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Data are from 192 hospitals. Hospitals reporting fewer than 20 cases are excluded from the denominator.

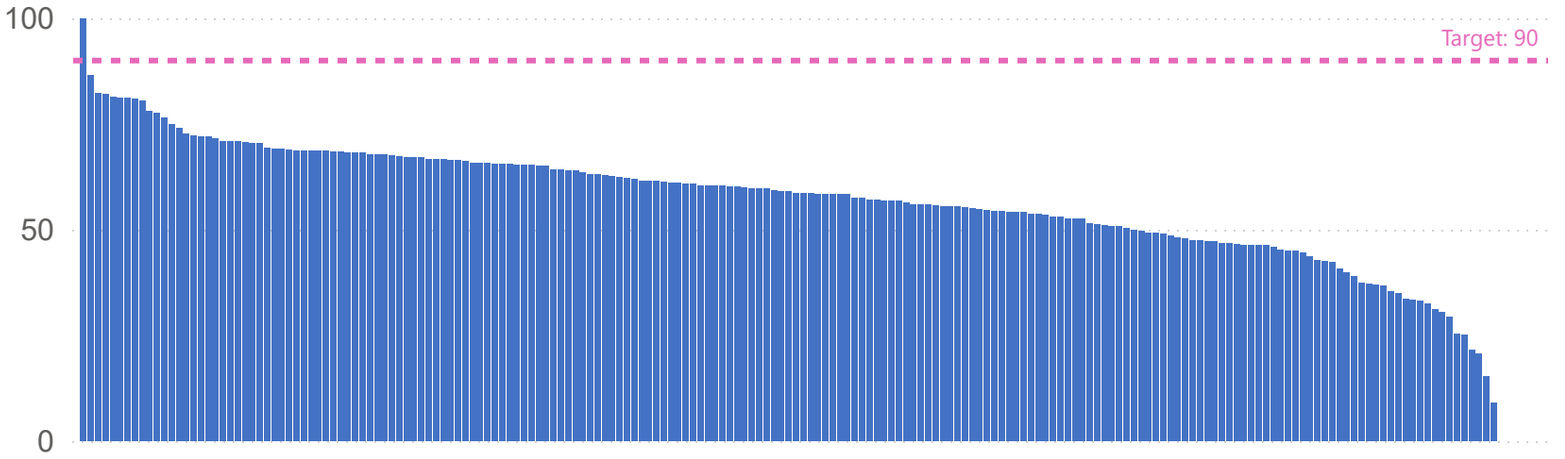
Select a Cardiac Network

All

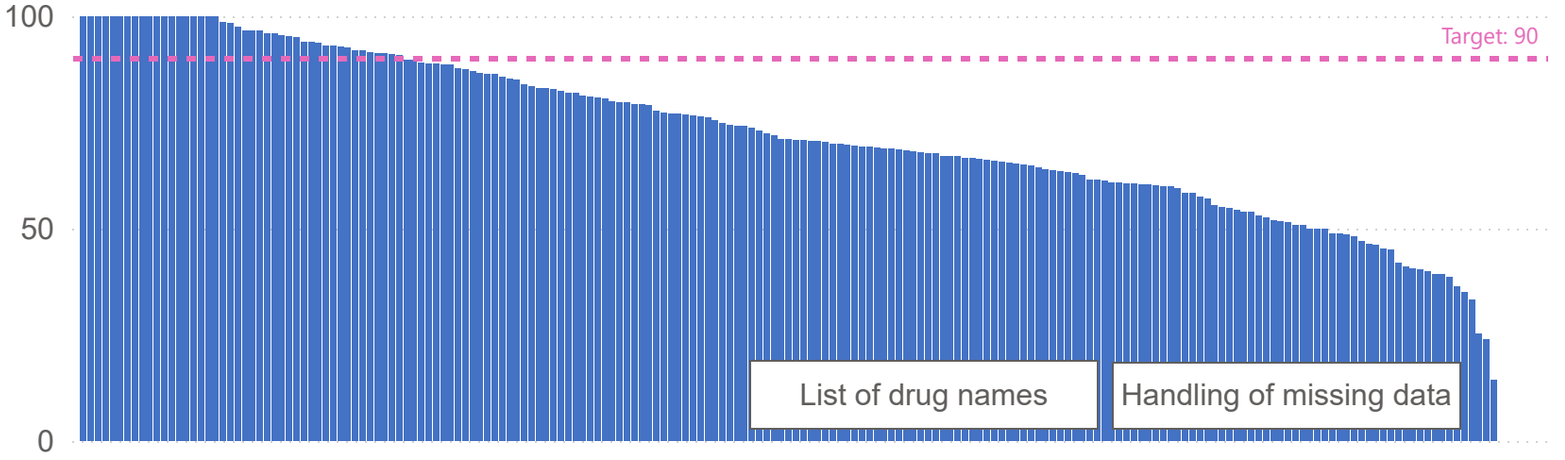
Select hospital

All

Percentage of patients with HFrEF receiving an MRA by hospital in 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving an MRA by hospital in 2024/25 (excluding unknowns)



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The proportion of patients receiving an ACEi/ARB/ARNI + MRA + Beta Blocker is disappointingly low across hospitals

The audit target is for hospitals to prescribe a combination of all three standard outcome-improving drugs to 90% of patients with HFrEF, unless there is a clear contraindication to one or more of the drugs.

Prescribing rates are substantially below this target, with considerable hospital variation. The data variations, with and without the unknowns, also suggest worrying underuse of optimal guideline-directed medical therapy.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Data are from 192 hospitals. Hospitals reporting fewer than 20 cases are excluded from the denominator. Patients with clearly defined contraindications are not included in either denominator.

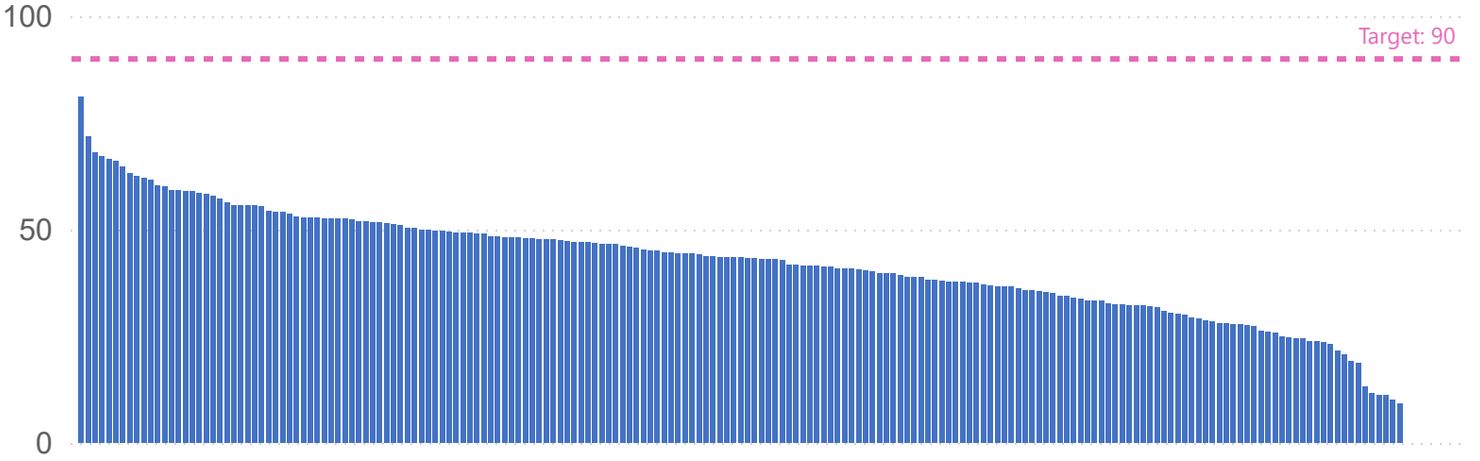
Select a Cardiac Network

All

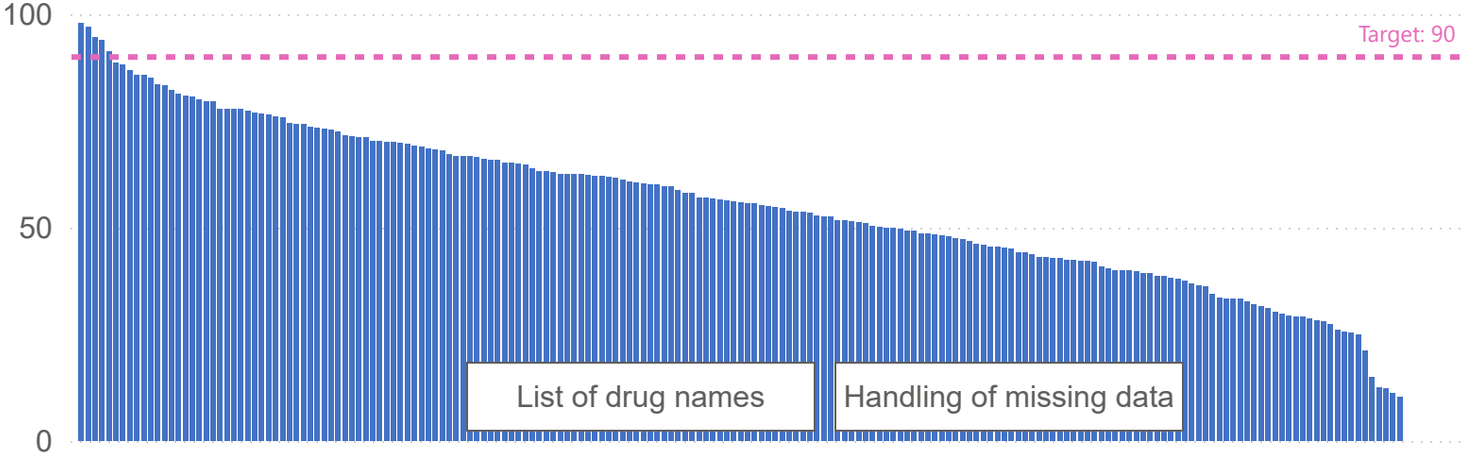
Select hospital

All

Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI + BB + MRA by hospital 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI + BB + MRA by hospital 2024/25 (excluding unknowns)



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The proportion of patients receiving an ACEi/ARB/ARNI + MRA + Beta Blocker varies substantially between local health regions

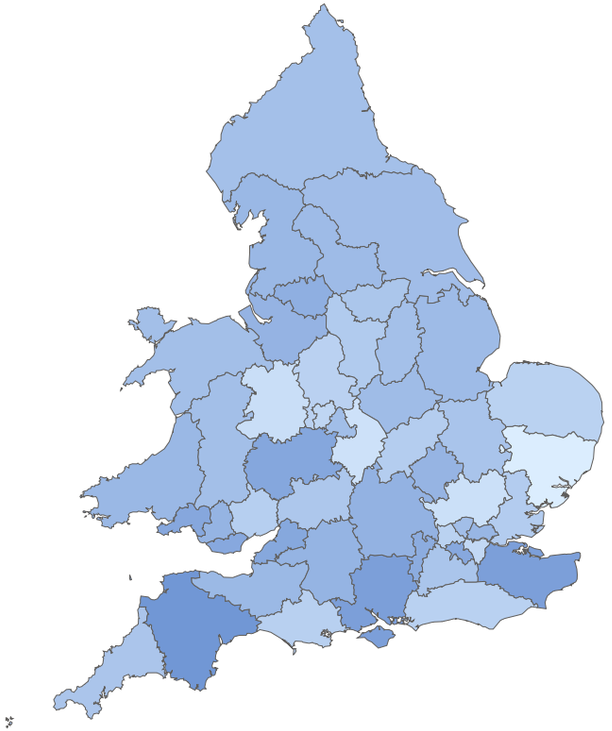
The maps show the prescribing rates for all 3 standard disease-modifying drugs across:

- the 42 Integrated Care Boards (ICBs) in England
- the 7 University Health Boards (HBs) in Wales (commissioning organisations)
- the 16 Cardiac Networks (operational delivery networks)

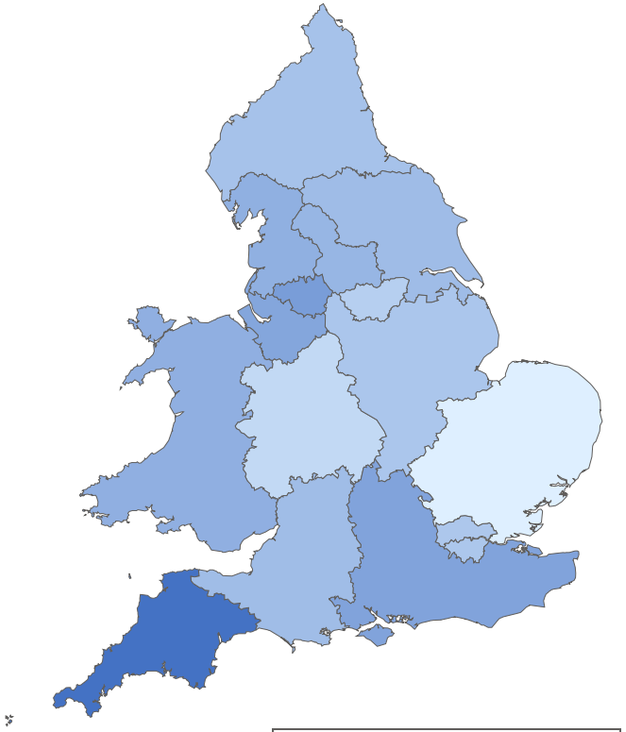
Prescribing rates of all 3 standard outcome-improving drugs (ACEi/ARB/ARNI + BB + MRA) in patients with HFrEF vary considerably between 29% and 79%.

Hover over the maps to see specific data (darker areas = higher prescribing levels).

ACEi/ARB/ARNI + BB + MRA prescribing rates at discharge based on patient home location by ICB/HB (2024/25)



ACEi/ARB/ARNI + BB + MRA prescribing rates at discharge based on hospital location by Cardiac Network (2024/25)



List of drug names

Handling of missing data

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The proportion of patients receiving an ACEi/ARB/ARNI + MRA + Beta Blocker + SGLT2i is disappointingly low across hospitals

The audit target is for hospitals to prescribe a combination of all 3 standard outcome-improving drugs, together with an SGLT2i, to 90% of patients with HFrEF, unless there is a clear contraindication to one or more of the drugs.

However, prescribing rates are substantially below this target, with considerable variation between hospitals.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

Note: Data are from 192 hospitals. Hospitals reporting fewer than 20 cases are excluded from the denominator. Patients with clearly defined contraindications are not included in either denominator.

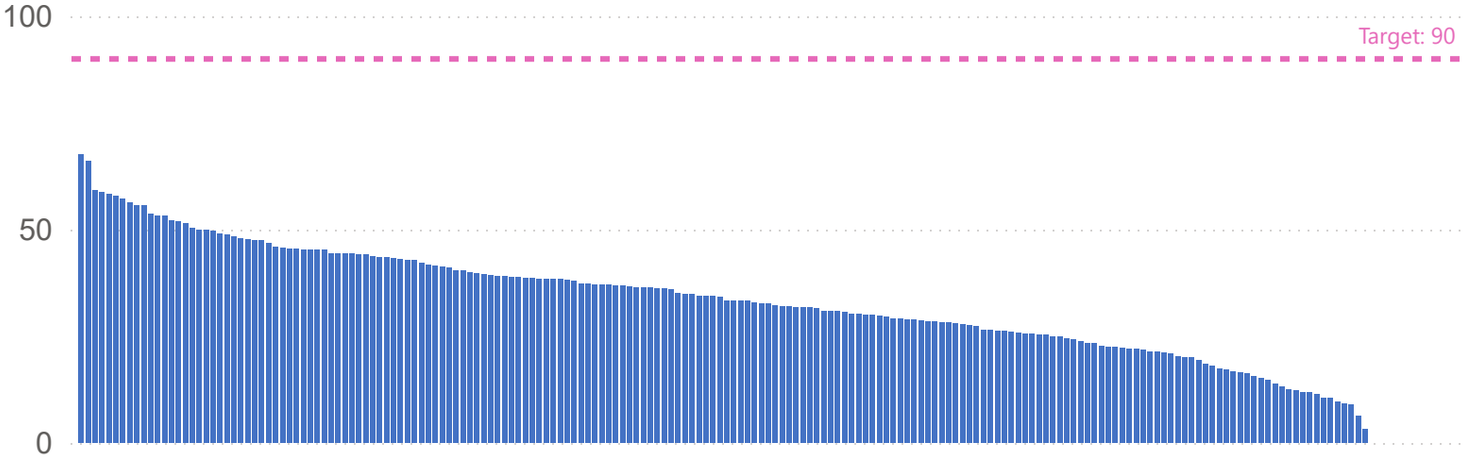
Select a Cardiac Network

All

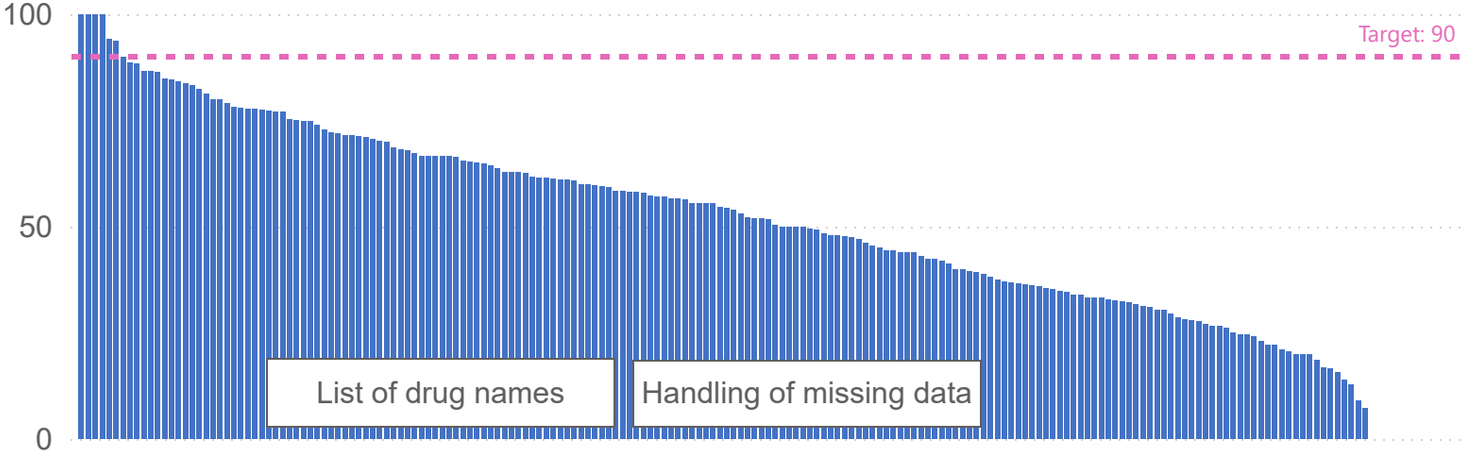
Select hospital

All

Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI + BB + MRA + SGLT2i by hospital 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving an ACEi/ARB/ARNI + BB + MRA + SGLT2i by hospital 2024/25 (excluding unknowns)



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The prescribing of the relatively new sodium glucose co-transporter 2 inhibitor (SGLT2i) drugs in patients with HFrEF is being adopted rapidly

Over 60% of patients with HFrEF are receiving an SGLT2i. This represents a 10% increase since 2022/23 (however data quality needs to improve). As with the other drugs recommended in HFrEF, the target level of prescribing is now 90%.

Sodium glucose co-transporter 2 inhibitors (SGLT2is) are relatively new drugs. Within this drug group, both dapagliflozin and empagliflozin are licensed and recommended as an additional (fourth) disease-modifying drug to be prescribed by discharge for those with HFrEF, unless a clear contraindication exists.

Select a Cardiac Network or hospital below or hover over the graph to see specific data.

Note: Hospitals reporting fewer than 20 cases are excluded from the denominator. Patients with clearly defined contraindications are not included in either denominator. Prescribing of these drugs is monitored in the latest NHFA dataset (V5) which most hospitals use.

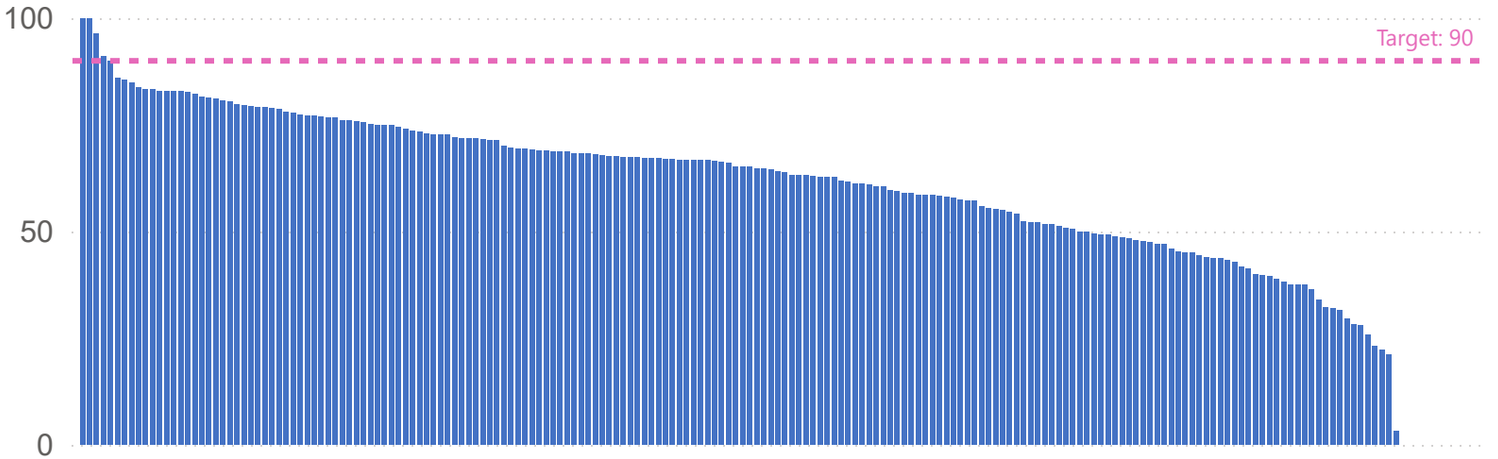
Select a Cardiac Network

All

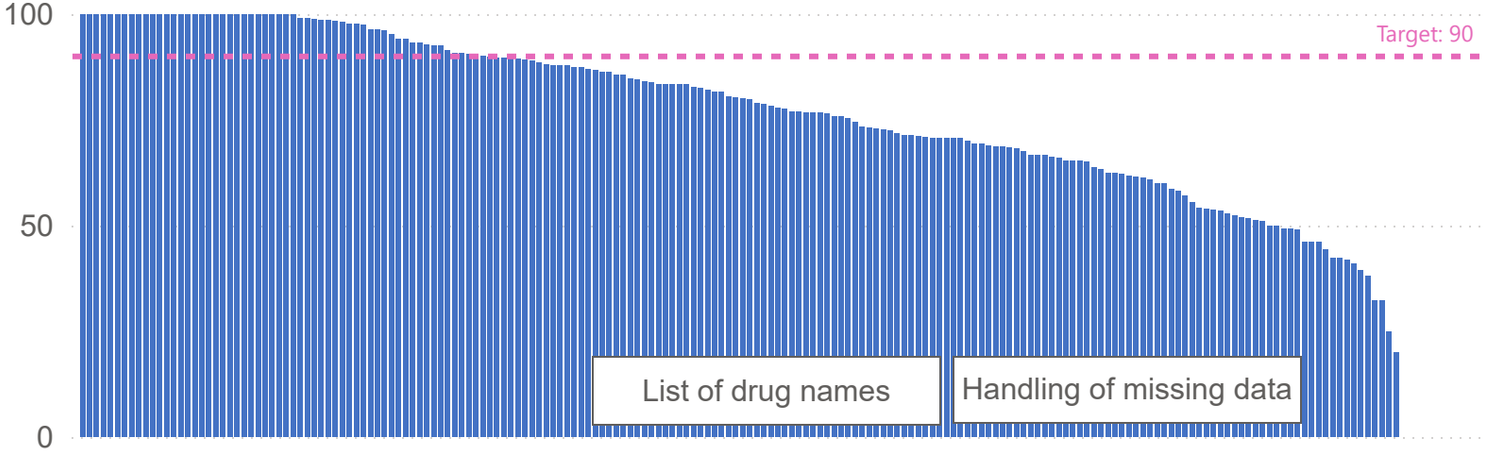
Select hospital

All

Percentage of patients with HFrEF receiving an SGLT2i by hospital in 2024/25 (including unknowns)



Percentage of patients with HFrEF receiving an SGLT2i by hospital in 2024/25 (excluding unknowns)



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Drug treatment for heart failure is best when care is delivered in a cardiology ward

HFrEF patients are more likely to be prescribed the recommended disease-modifying drugs if they are treated on a specialist cardiology ward.

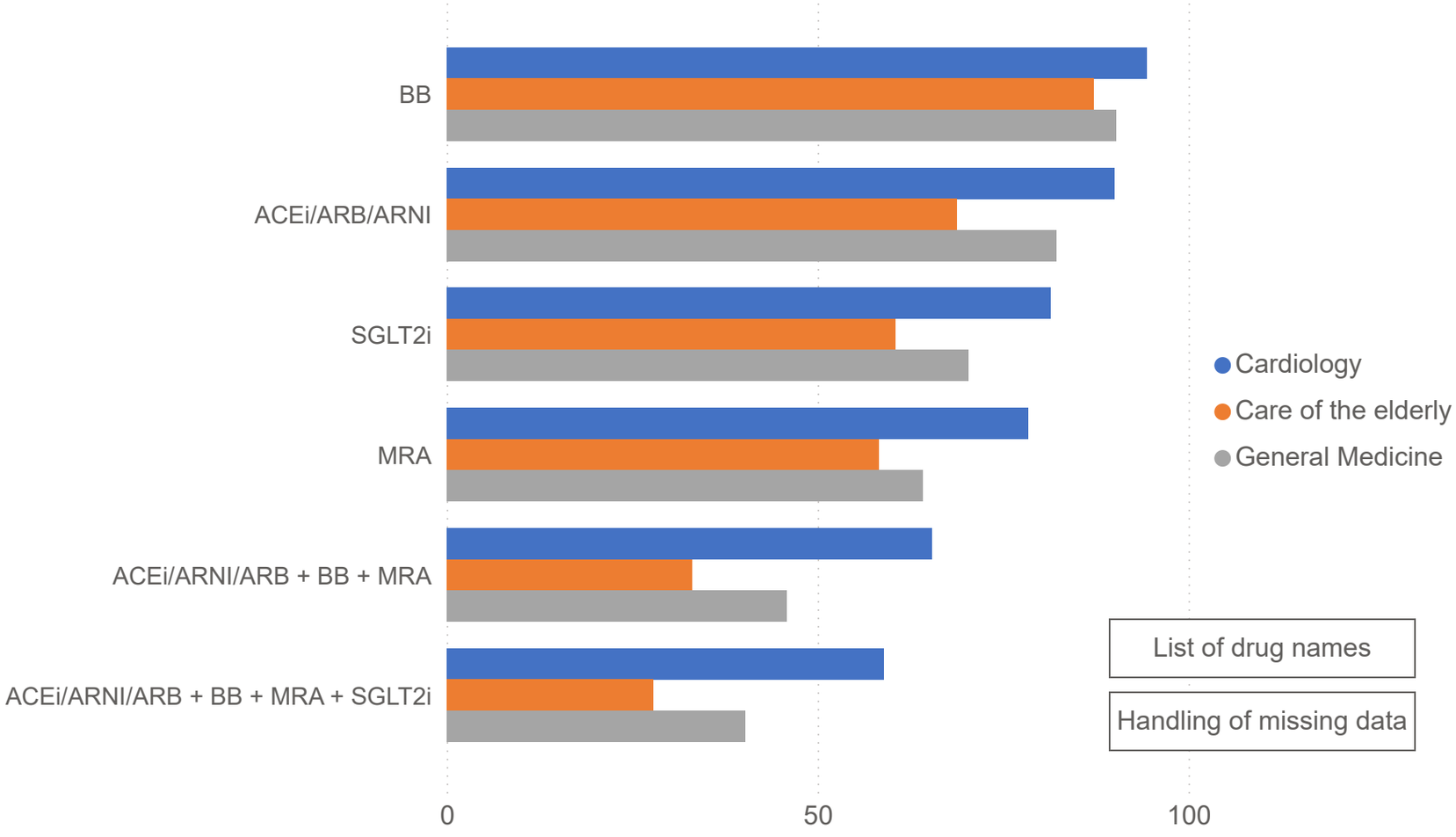
The main differentials in prescribing practice by place of care are seen with MRAs, drug combinations and SGLT2i drugs.

Beta-blockers, and to a lesser extent ACEi/ARB/ARNi drug classes, are relatively well-prescribed across all settings.

Prescription of an ACEi/ARB/ARNI, a beta-blocker, an MRA and an SGLT2i drug classes are key performance indicators for patients with HFrEF as these drugs are associated with better survival, lower hospitalisation rates and improved quality of life.

It is recommended to start small doses of all 4 drugs early. High rates of prescribing of all four drugs will not be achieved unless MRA prescribing improves.

Percentage of HFrEF patients who received disease-modifying drugs, alone and in combination, at discharge from hospital, by place of care (2024/25)



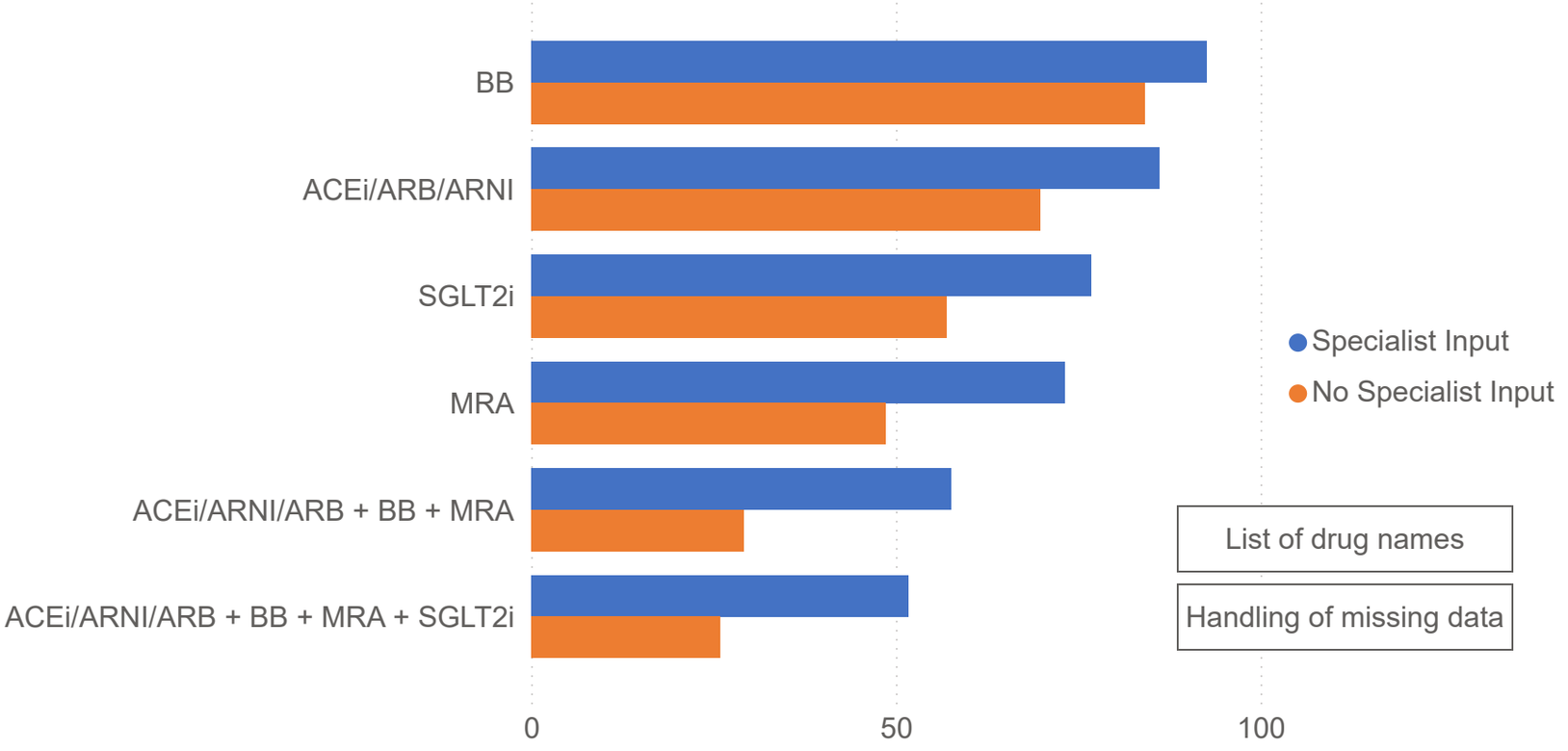
Recommended drug treatment for heart failure improves with specialist input

All classes of disease-modifying treatments for HFrEF are prescribed more when patients are seen by a member of the specialist HF team.

That prescribing is even more marked for the newer SGLT2i drug class and for the more established MRAs.

Ward teams should strive to have all patients referred to the specialist HF team to improve prescribing rates.

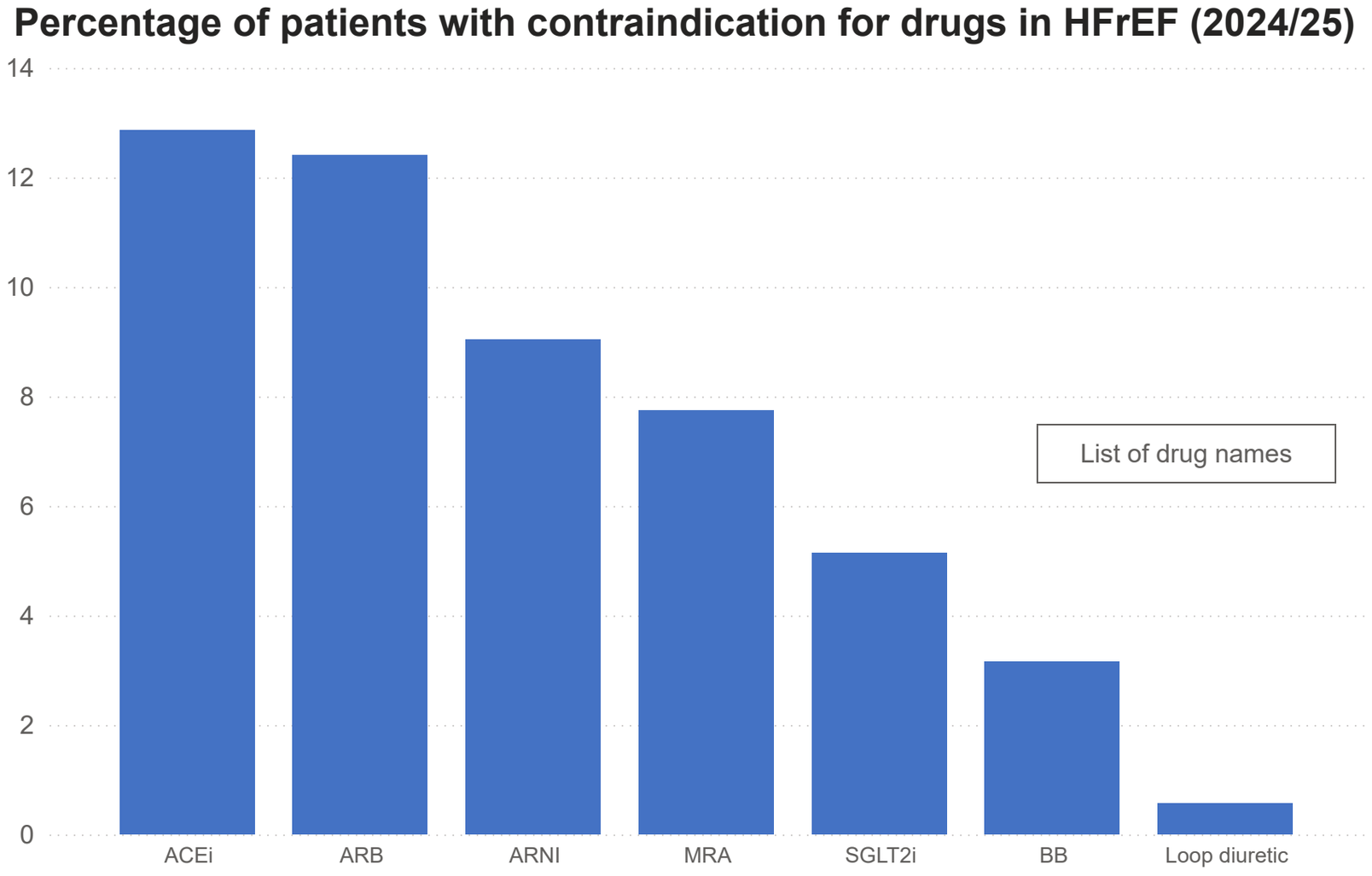
Percentage of patients with HFrEF who received disease-modifying drugs, alone and in combination, at discharge from hospital by specialist input (2024/25)



Contraindication rates in HFrEF patients were highest for ACEi and ARB drugs

The recorded contraindications to prescribing of medical therapy for HFrEF varies with the drugs class.

In 2024/25, contraindications were highest for ACEi and ARB drugs and surprisingly low perhaps for loop diuretics.



An over-cautious approach to renal function and potassium levels may possibly be limiting the prescription of an MRA

Hyperkalaemia and renal dysfunction are often reported as contraindications for MRA use.

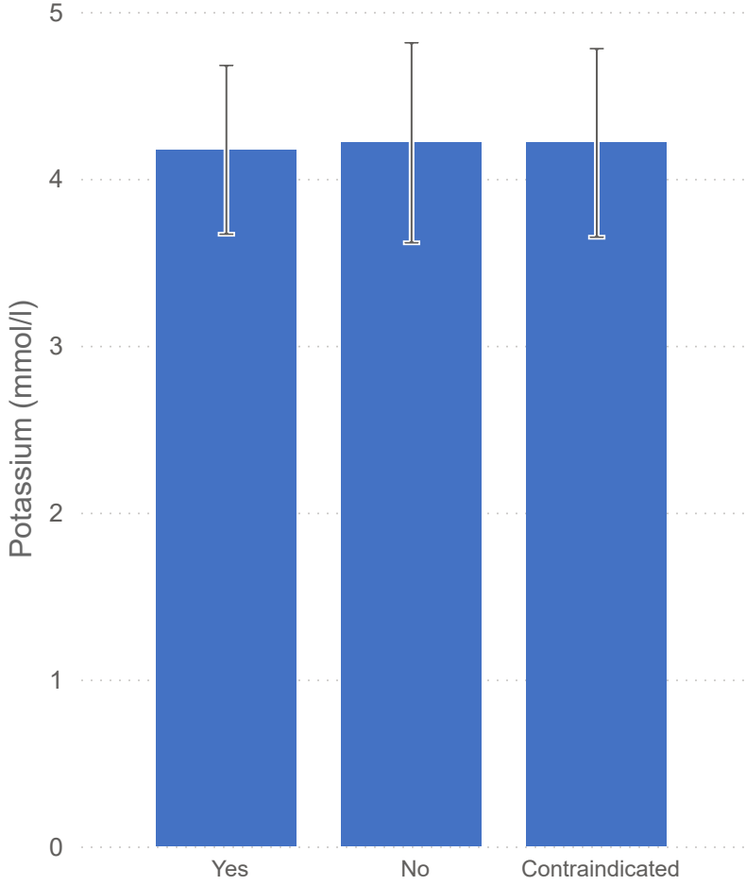
However, mean potassium concentrations at discharge were similar in:

- those reporting that MRA use was contraindicated
- those prescribed MRAs
- those not prescribed MRAs.

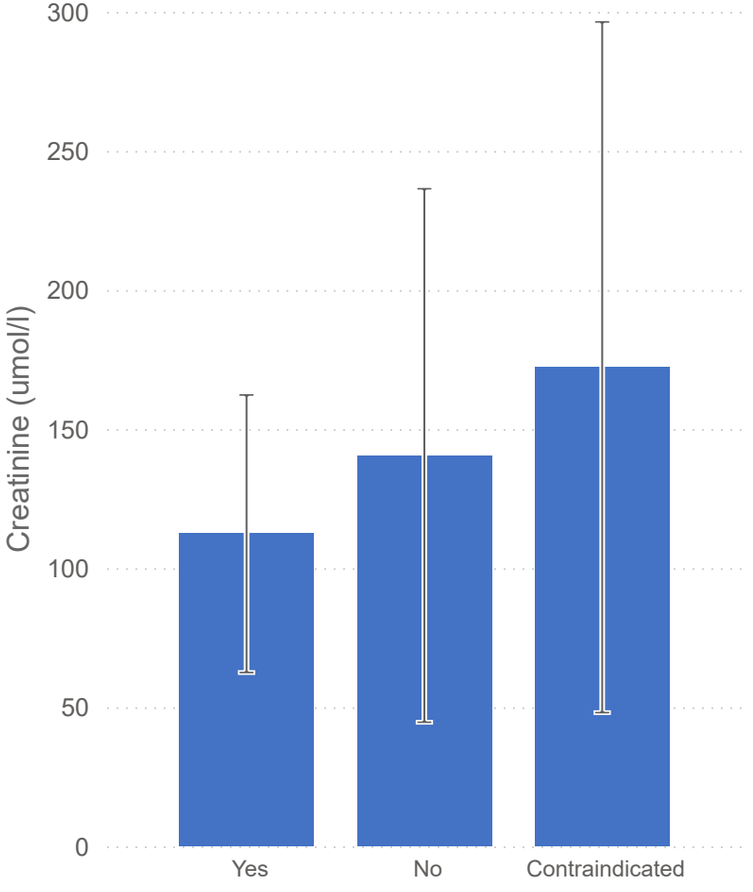
A creatinine level of <221µmols/l was used as the upper limit for inclusion of patients in the RALES Trial, in which spironolactone improved HF outcomes. In the audit, even those in whom MRAs were said to be contraindicated, the mean creatinine concentration was 172 umol/l. This suggests that there is scope for increased prescribing of MRAs.

Bars in the graphs represent standard deviations around the mean.

Serum potassium by MRA status (2024/25)



Serum creatinine by MRA status (2024/25)



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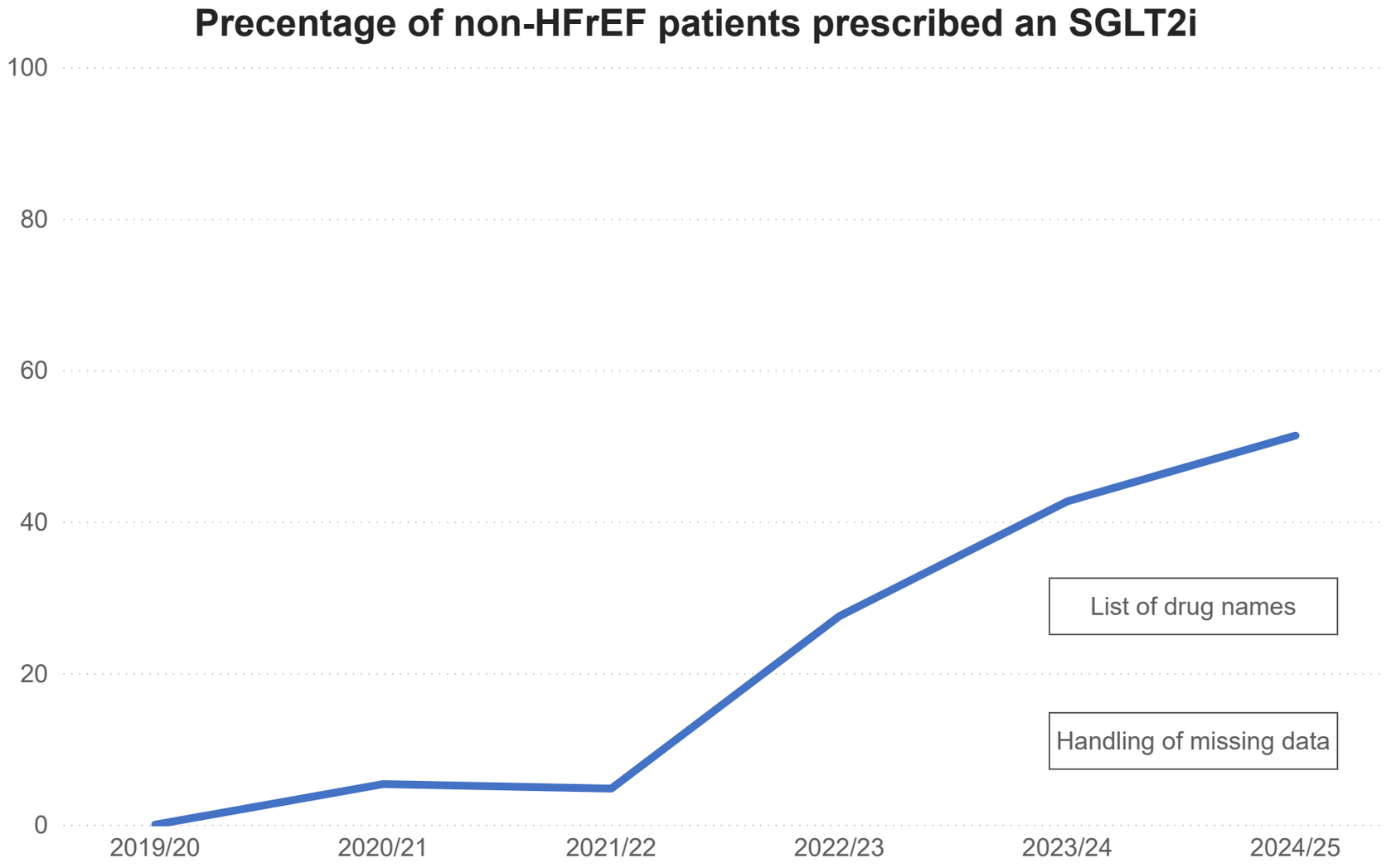
SGLT2i prescribing rates in non-HFrEF patients are increasing

Trials of SGLT2i drugs have demonstrated a reduction in cardiovascular deaths or hospitalisations for HF.

The ESC 2023 Heart Failure Guideline Update gave the use of SGLT2i (dapagliflozin and empagliflozin) a Class 1A recommendation (something that is recommended for all patients) for their use in HFmrEF patients (Heart Failure with mildy reduced Ejection Fraction) and HFpEF (i.e. all those with LVEF>40%).

The 2024/25 results show these recommendations are steadily being adopted with an 8% increase in prescribing of SGLT2i drugs compared with 2023/24.



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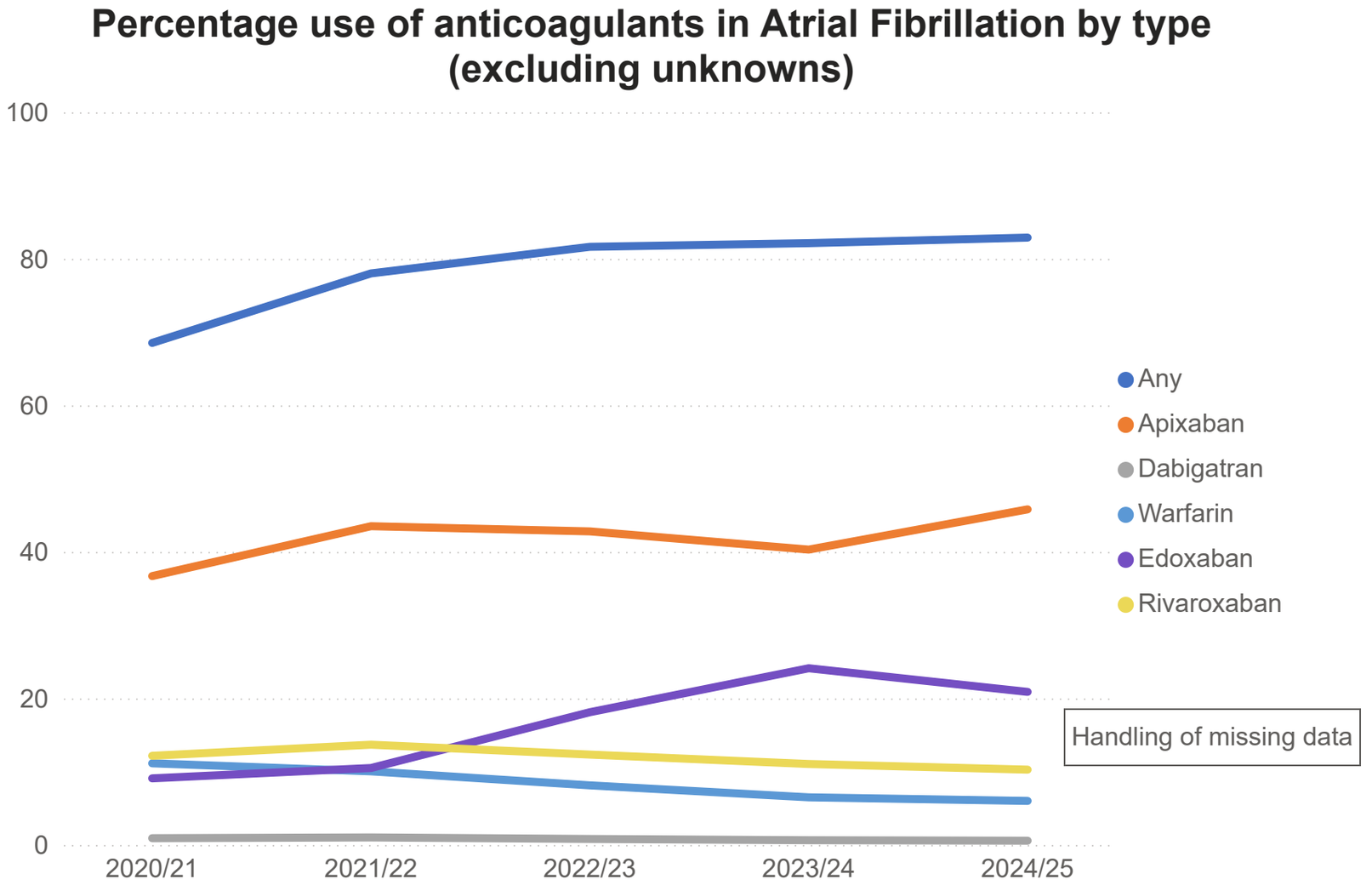
Anticoagulant use in heart failure patients with atrial fibrillation needs to improve

Patients with heart failure who develop the irregular heartbeat termed atrial fibrillation (AF) are at considerably increased risk of thromboembolic events, including stroke.

The likelihood of these complications (which can be devastating and are associated with increased mortality) can be markedly reduced by prescribing anticoagulant drugs (see both the 2021 ESC HF and the NICE AF guidance).

In 2024/25, only 83% of the patients with HF and AF were prescribed an anticoagulant at discharge (where no contraindication to anticoagulation has been identified), leaving 17% at risk.

When the bleeding and other risks do not outweigh the benefits, this should be undertaken before the patient leaves hospital. If the risks of bleeding are considered to be too high, this is a contraindication and those patients are not included in the denominator.

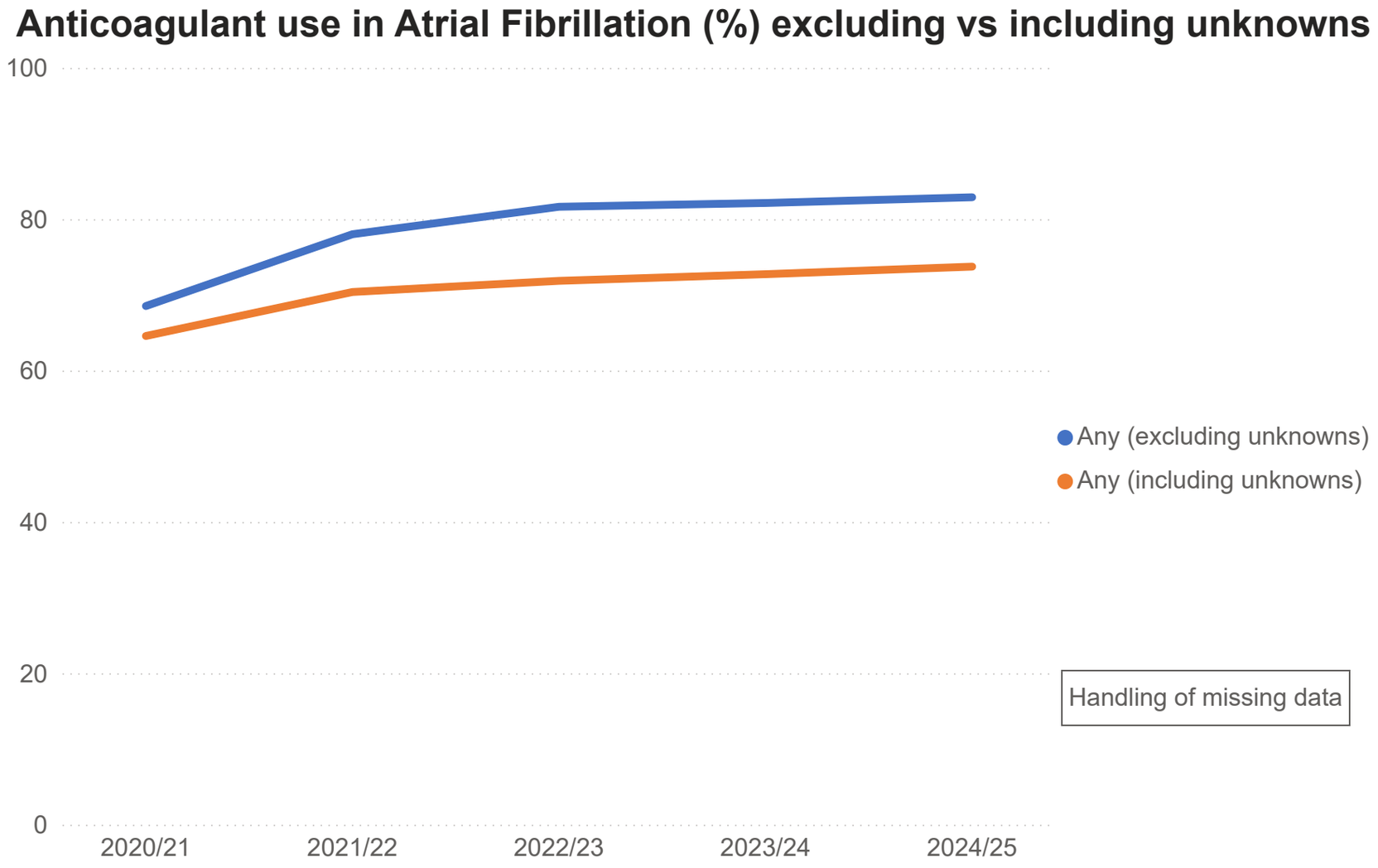


Data quality on anticoagulant use in HF patients needs to improve

In assessing the rate of use for anticoagulants, there is a significant difference in the result when excluding 'unknowns' from the denominator (ie where there is no definitive submission for that case) and where the 'unknowns' are included in the denominator as a 'No'.

Including an 'unknown' record as a 'No', which is more likely to give accurate and representative results, shows that up to 26% of patients in 2024/25 were sent home at serious risk of stroke and other thromboembolic events. That figure is 9% higher than shown in the previous slide.

The HF teams, including those entering data, should pay particular attention to this aspect of HF care and data accuracy.



Anticoagulant use in AF by hospital

Hospitals should ensure their anticoagulant prescribing rates approach 100% in patients with HF and AF, in whom clear contraindication(s) have not been identified.

Only 5 hospitals in 2024/25 achieved rates of 90% or higher.

This is an area where the HF teams may find it helpful to work closely with the anticoagulation services.

Select a Cardiac Network or hospital below or hover over the graphs to see specific data.

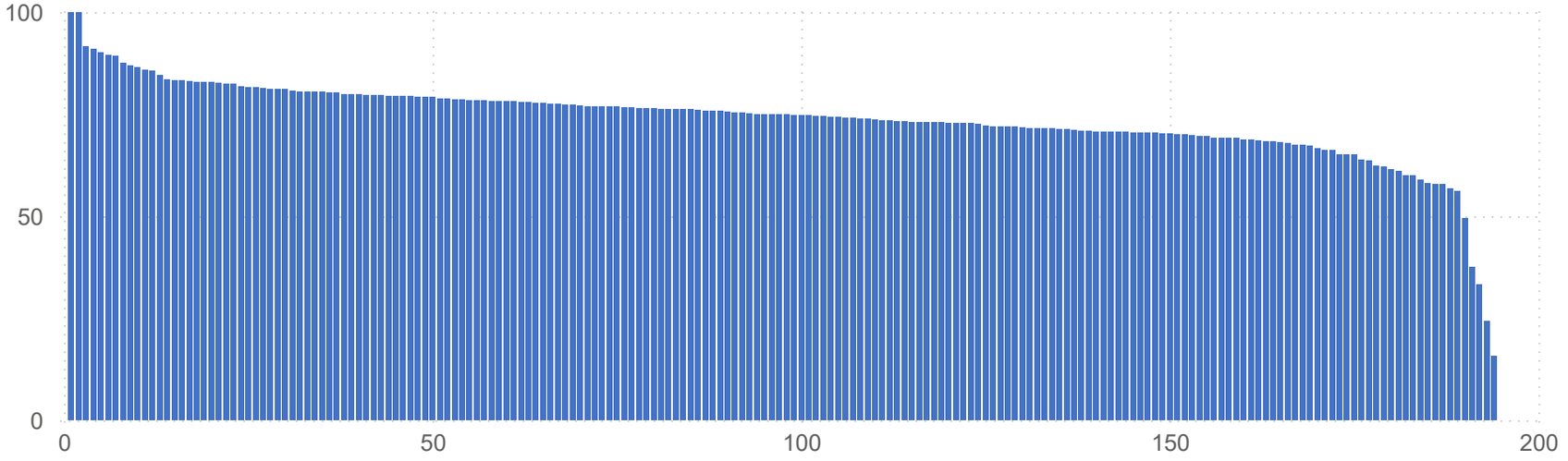
Select a Cardiac Network

All

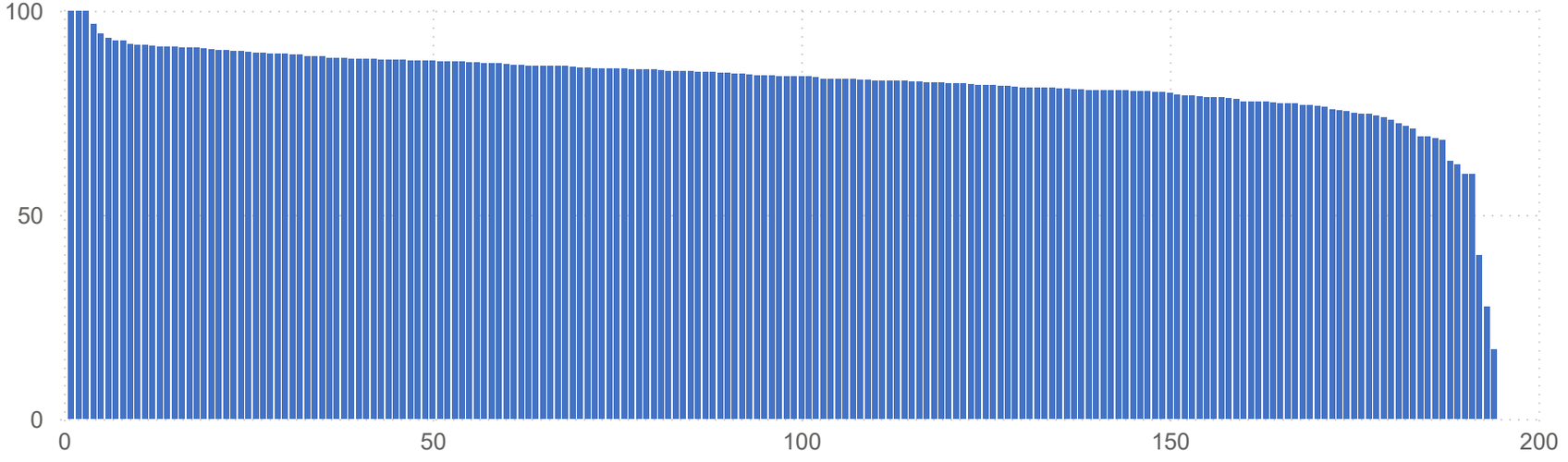
Select hospital

All

Any anticoagulant use in AF including unknowns (2024/25)



Any anticoagulant use in AF excluding unknowns (2024/25)



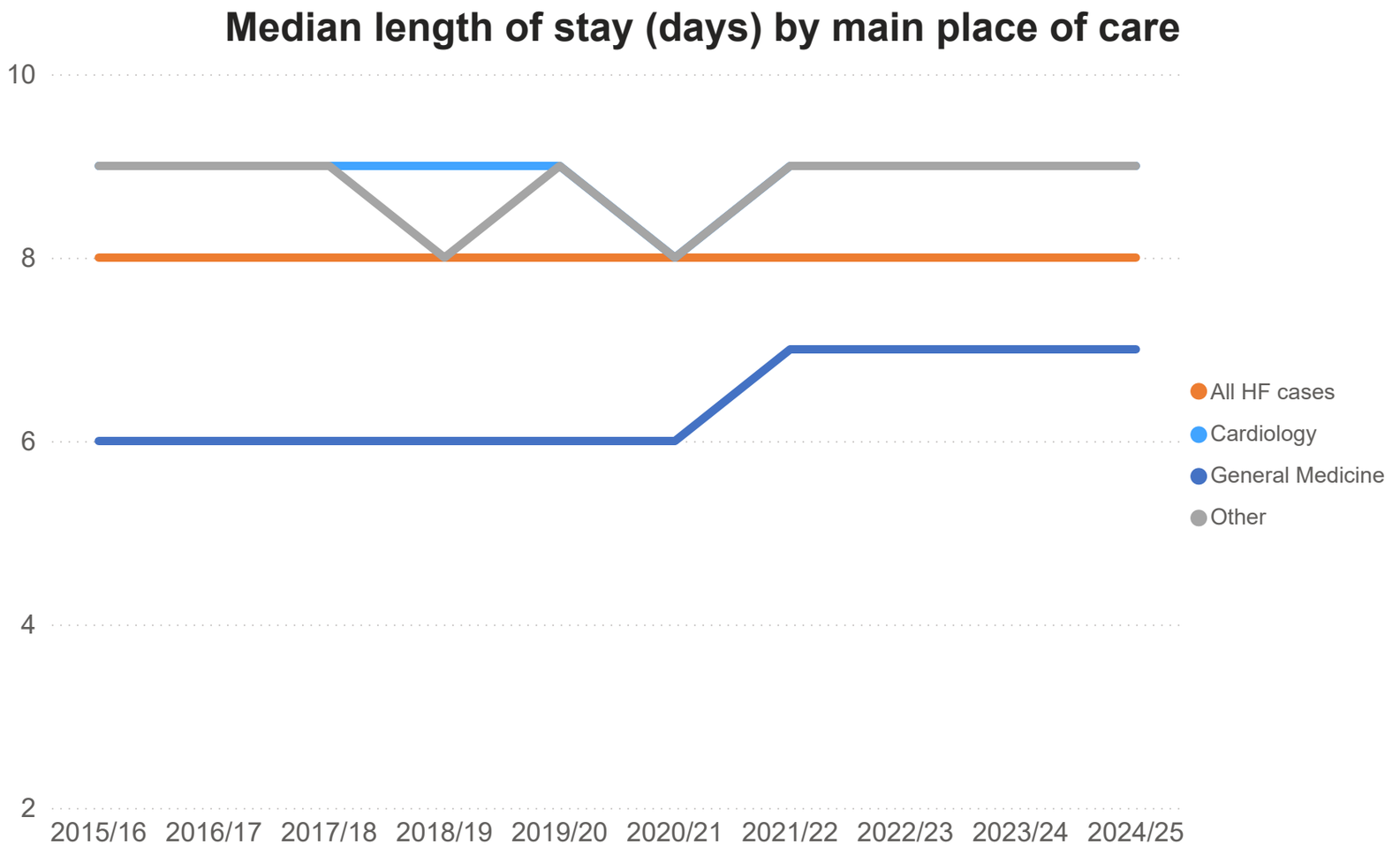
Length of stay varies by place of care

The optimal length of stay (LOS) for HF patients is unknown and likely varies by patient. **The time needed for optimal management suggested by NICE during an index admission may explain the longer stays on cardiology wards, which should result in improved inpatient and subsequent mortality, individual well-being and reduce the likelihood of re-admissions (and so result in fewer bed days overall for HF patients).**

There has been no change in length of stay over recent years.

Where lines are overlapping, selecting the category of interest in the legend will show the relevant line.

Note: The data on length of stay have previously been presented as means and medians, but given the skewed nature of the figures, this year we present only median values.

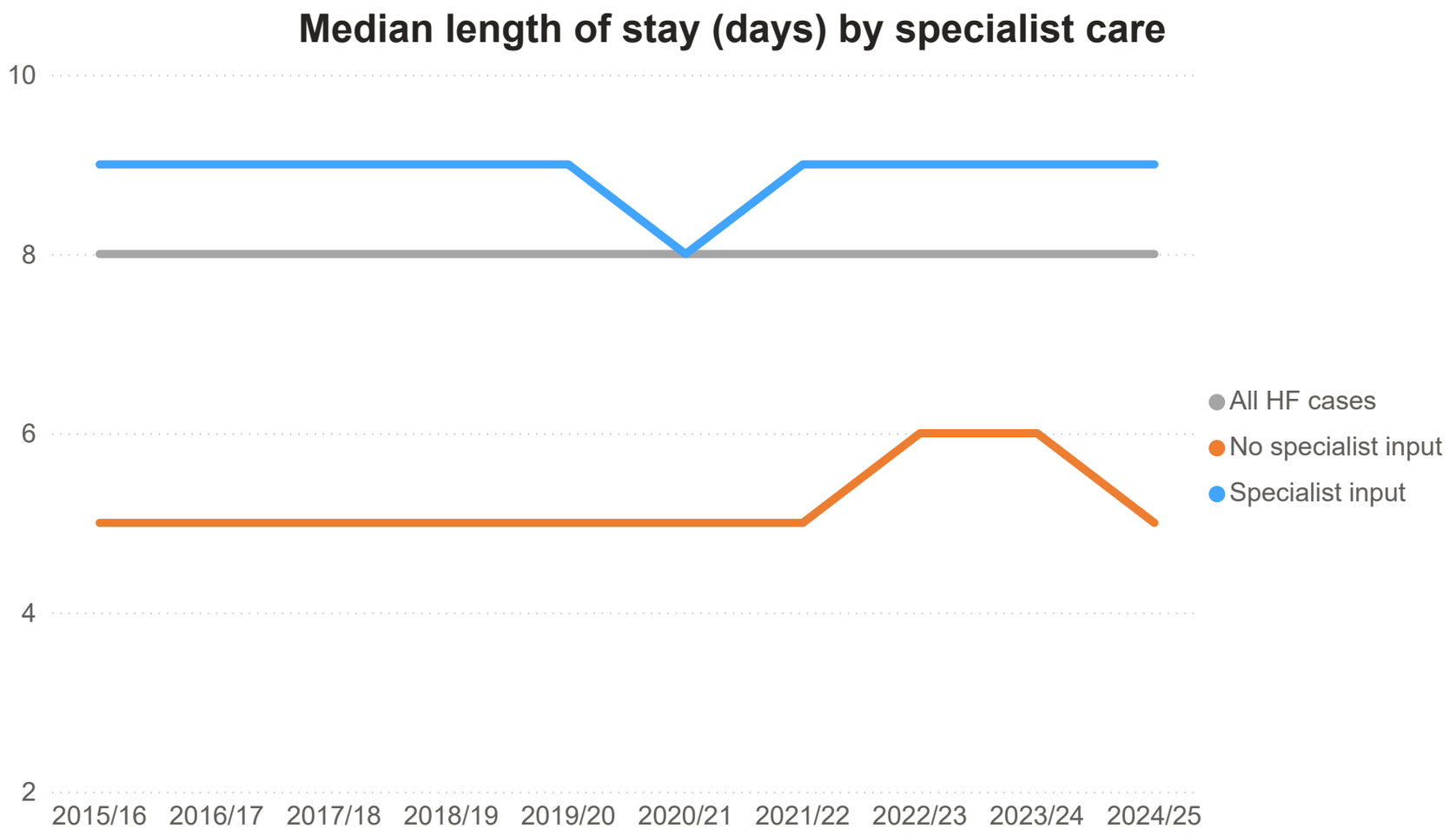


Length of stay is longer for those receiving specialist input

Patients who have not been seen by a specialist HF team have a shorter length of stay (LOS) by 4 days.

The optimal LOS is unknown and likely varies by patient. The time required for optimal management suggested by NICE during an index admission may explain the longer values for patients with specialist care input, and will improve inpatient and subsequent mortality, individual well-being and reduce likelihood of re-admissions.

Note: The data on length of stay have previously been presented as means and medians, but given the skewed nature of the figures, this year we present only median values.



Cardiology care is associated with more specialist follow up, though recorded cardiology follow-up remains low

The proportion of patients admitted to a cardiology who were referred to rehabilitation remains low at 21%. This needs to improve further.

All patients fit for discharge should ideally leave hospital knowing when (within two weeks), where and by which member of the specialist HF team they will be reviewed.

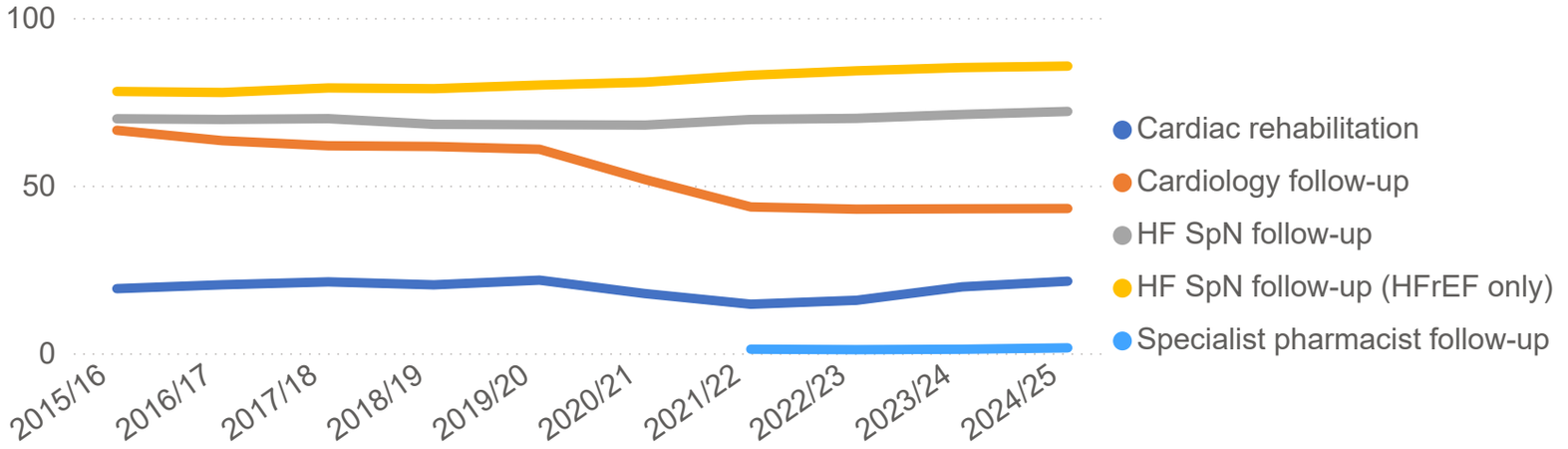
They should also be referred to cardiac rehabilitation. Specialist follow-up and rehabilitation is associated with lower morbidity and mortality. There is either under-reporting, or under-use of pharmacy follow-up, which remains static at between 0.5 and 1.5 percent.

Of concern is the failure to see recovery of the drop-off in cardiology follow-up that coincided with the COVID-19 pandemic. This applies to patients admitted to a cardiology ward and those admitted elsewhere. The HF teams need to address this.

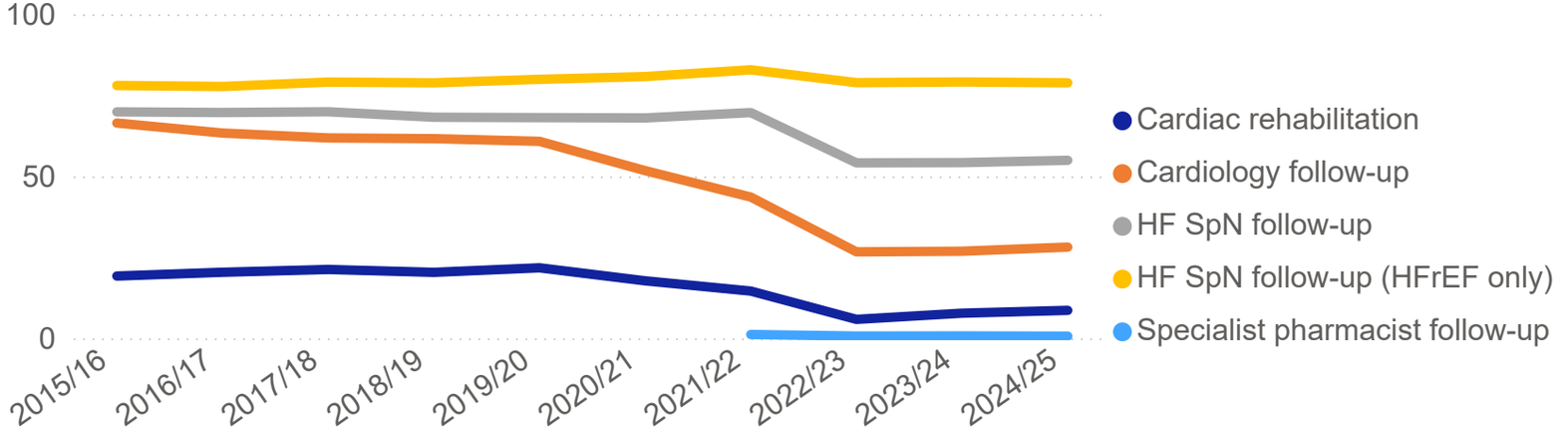
Elsewhere rates of follow-up were maintained in 2024/25.

Note: The data on pharmacy follow-up is likely an underestimation since this is a new field and we encourage accurate completion.

Percentage of patients treated in a cardiology ward who received referrals to HF services post-discharge



Percentage of patients treated in a general medicine ward who received referrals to HF services post-discharge



In-hospital mortality is lower for those admitted to a cardiology ward and those who receive specialist care

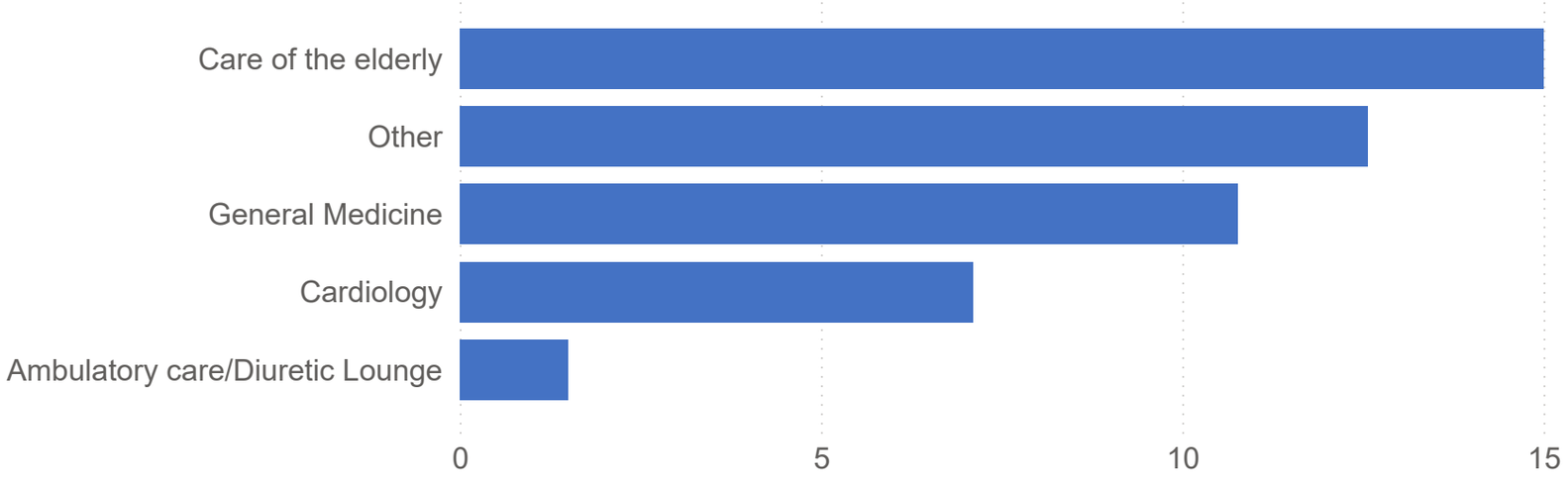
In-hospital mortality was lowest for patients who:

- **were cared for on a cardiology ward**
- **received specialist cardiology care.**

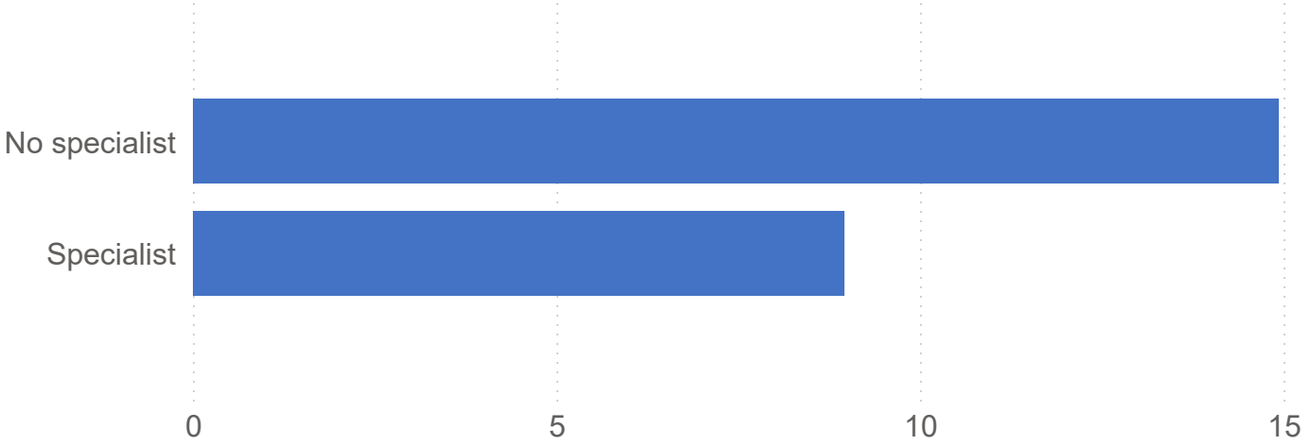
These data are not adjusted for differences in patient characteristics.

Note: Additional mortality data in the form of Kaplan Meier analysis segregated by relevant clinical factors will be provided in the appendix at publication, but are not yet available

Percentage in-hospital mortality by ward type (2024/25)



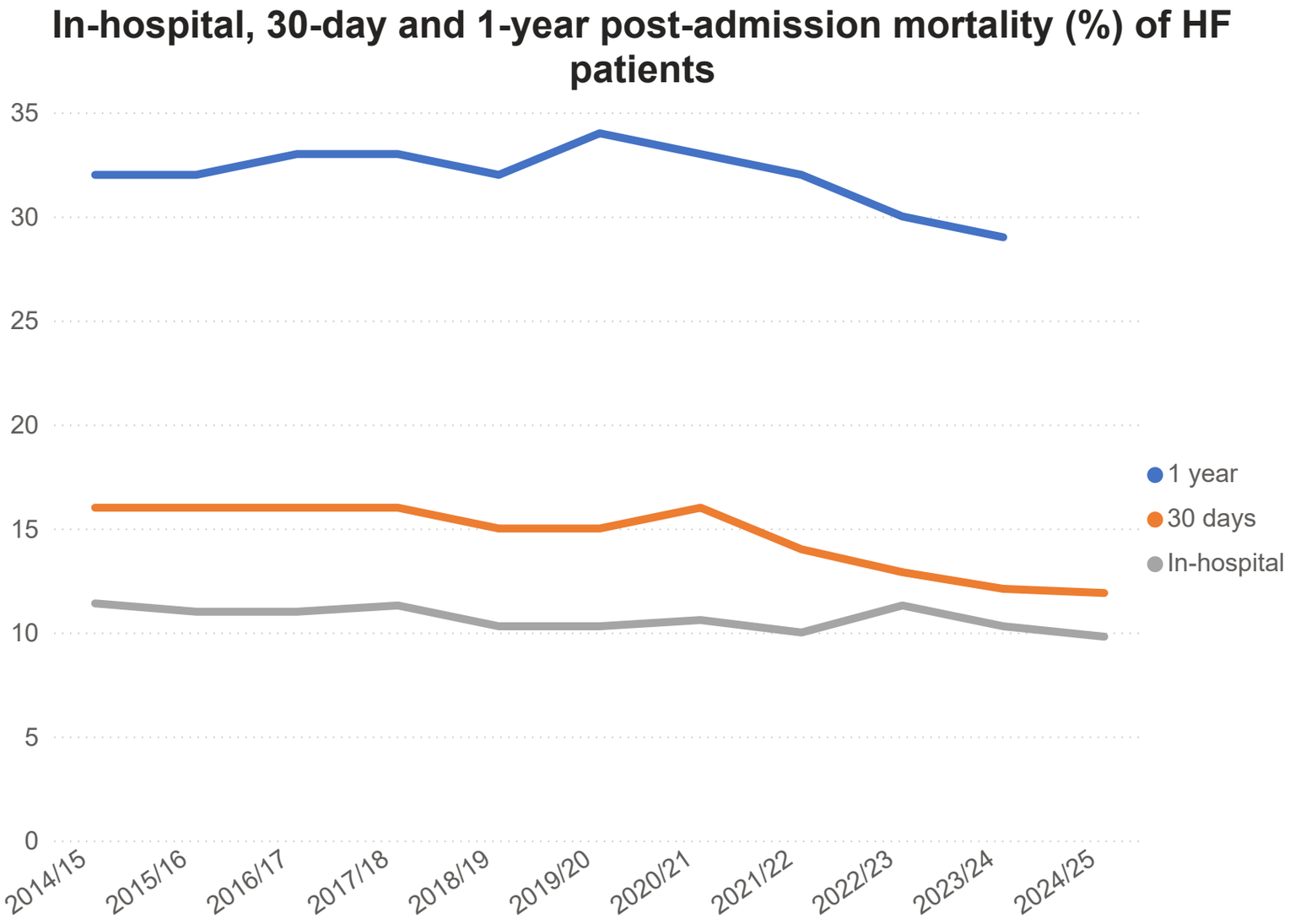
Percentage in-hospital mortality by specialist input (2024/25)



In-hospital and 30-day mortality continue to drop in 2024/25

In-hospital mortality fell to 9.8% in 2024/25 from 10.3% in 2023/24.

The trend towards a consistent reduction in 30-day mortality continues, dropping to 11.9% in 2024/25, from 12.1% in 2023/24.



Note on appendix content

The following pages contain analyses previously contained in the appendices available on the NICOR website.

These supplemental data may not be relevant to all users of our report.

Data cleaning processes that are applied after a hospital submits data to the NICOR National Heart Failure Audit

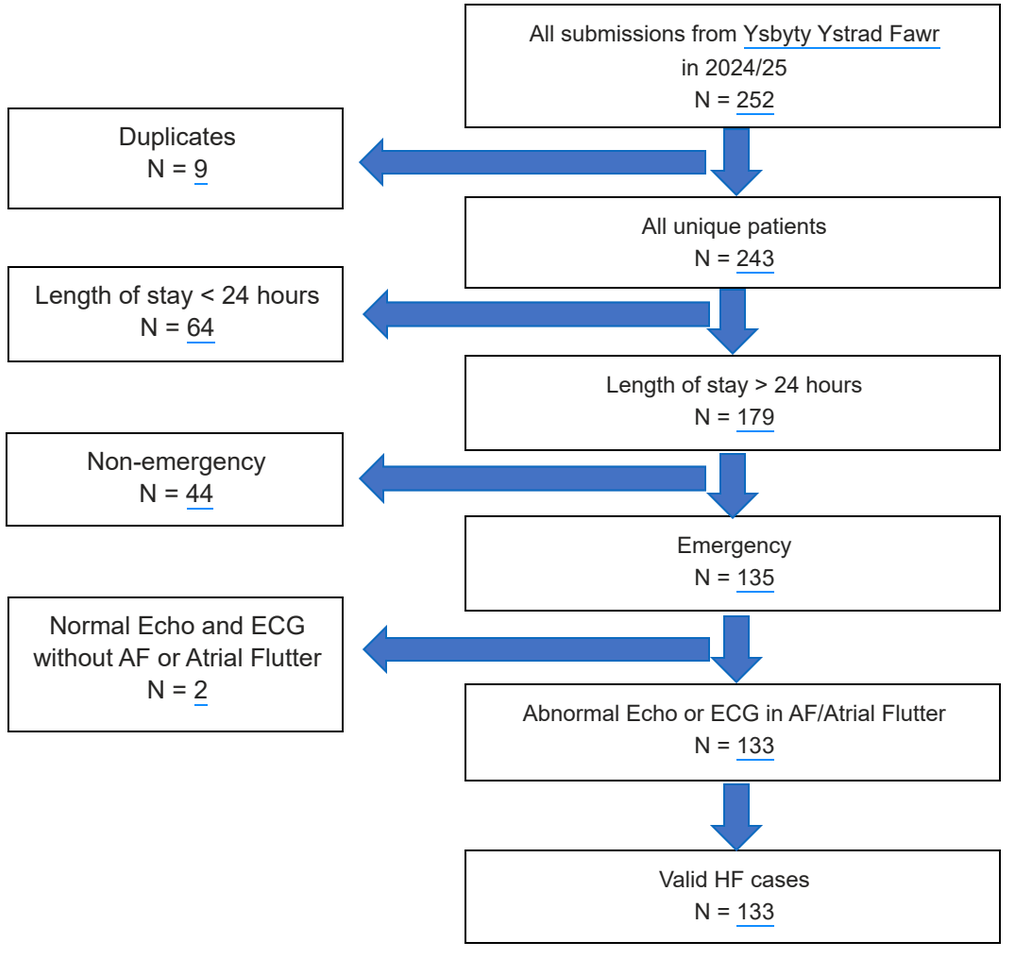
The flow diagram on this slide shows the cleaning processes that are carried out on submitted data.

- To determine the index admission for the audit year, duplicates are removed
- Then those who are discharged alive with a length of stay <24hrs are removed. This filters out those patients in ambulatory care settings that are sometimes submitted to the audit. These patients are removed from the main quality of care analysis but they are tracked by NICOR for mortality
- All non-emergency/elective admissions are removed
- Those with a normal echocardiogram (unless they have atrial fibrillation/flutter on their ECG are removed).
- This then results in the final number of valid cases for analysis.
- Further filters are applied depending on the analyses being undertaken (e.g. HFrEF).

Selecting a hospital below shows the relevant data for that hospital in the flow chart.

Select a hospital

Ysbyty Ystrad Fawr



List of drug names

ACEi	Angiotensin Converting Enzyme inhibitor
ARB	Angiotensin Receptor Blocker
ARNI	Angiotensin Receptor / Neprilysin Inhibitor
BB	Beta Blocker
MRA	Mineralocorticoid (aldosterone) Receptor Antagonist
SGLT2i	Sodium-glucose co-transporter 2 inhibitor

Prescribing rates for drugs/drug combinations include 'unknowns' in the denominator in response to poor data quality

The figures for drug prescribing rates have historically been analysed excluding a number of categories collectively described as 'unknowns' from the denominator. These unknowns include blanks, empty fields, not applicable and missing. However, this limits the reporting to a narrower group of patients than are submitted to the HF Audit with HFrEF, or other categories. This approach then leads to an overestimation of the drug prescribing rates.

It is essential that hospitals should submit complete and accurate data to the audit on all the drugs being prescribed at discharge. Where data quality is good, there should be little or no difference in the prescribing rates between the % prescribing with and without the 'Unknowns'.

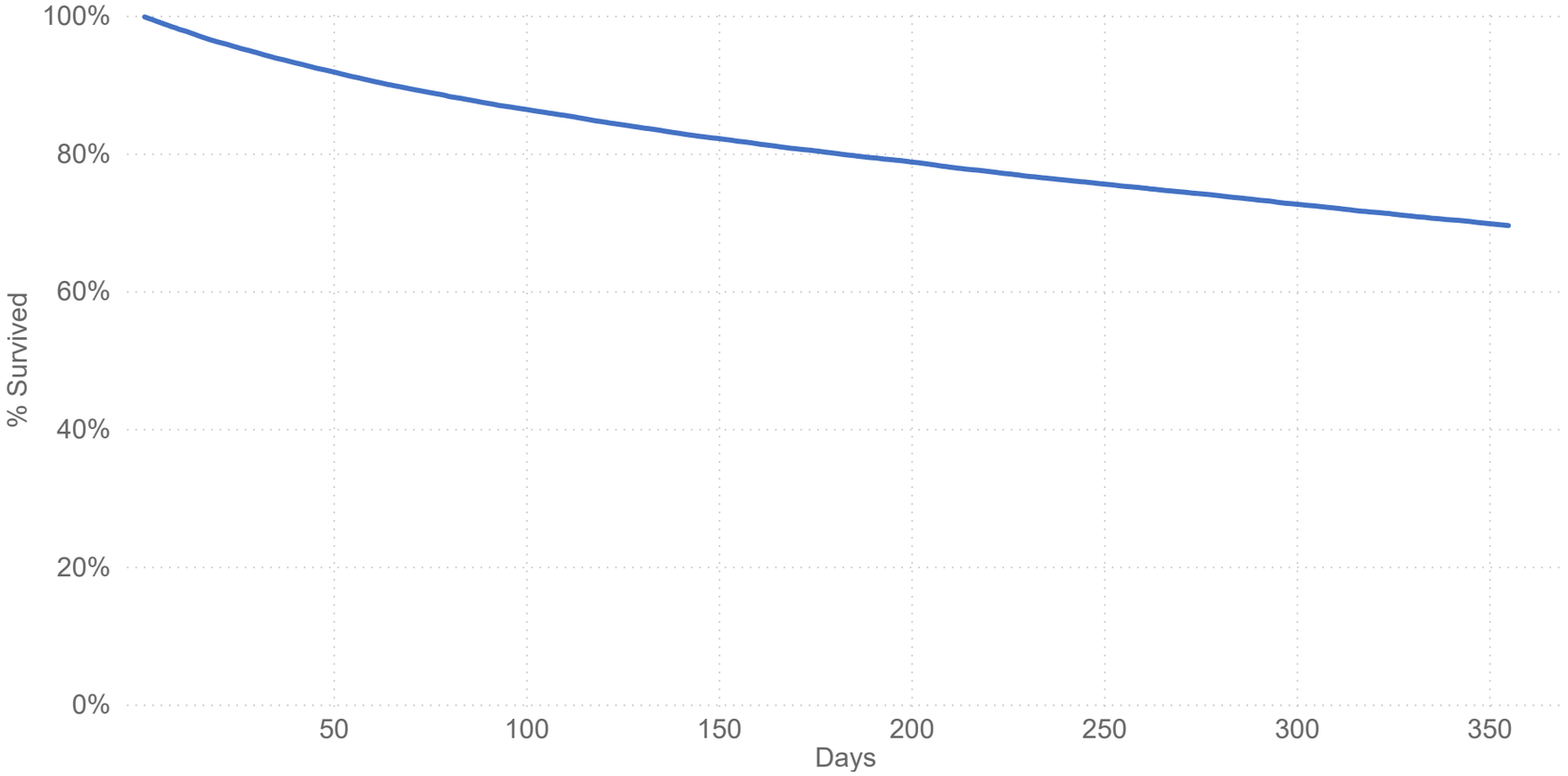
To encourage accurate data submissions, the audit reporting has moved to including 'unknowns' in the denominator as a 'No', resulting in lower % prescribing rates for some drugs/drug combinations.

This approach is being used for all the key disease-modifying drugs in HFrEF and includes ACEi/ARNI/ARB, Beta blockers, MRAs and SGLT2is. It will also apply to anticoagulation in atrial fibrillation (AF), to emerging drugs in HFpEF and other categories. In contrast, where a clear contraindication* is noted, those patients are not included in the denominator.

*Contraindication should be used where there has been an adverse reaction to a drug precluding its subsequent use.

1 year mortality post-discharge

Kaplan Meier plot of survival following discharge from hospital, 2024/25

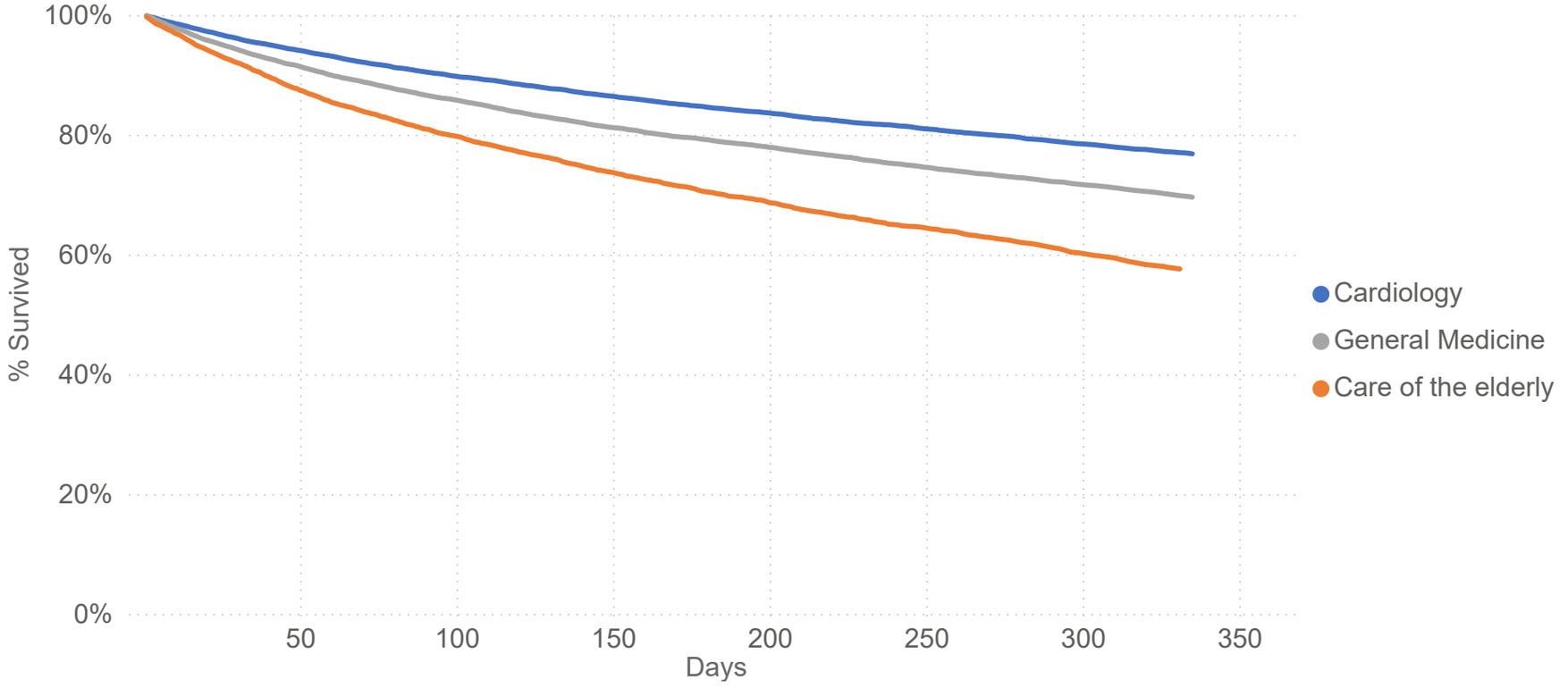


Number at risk

47616	43750	39350	32202	26303	20464	14998	9781

1-year survival is better for those discharged from cardiology wards

Kaplan Meier plot of survival following discharge from hospital according to place of care during admission, 2024/25

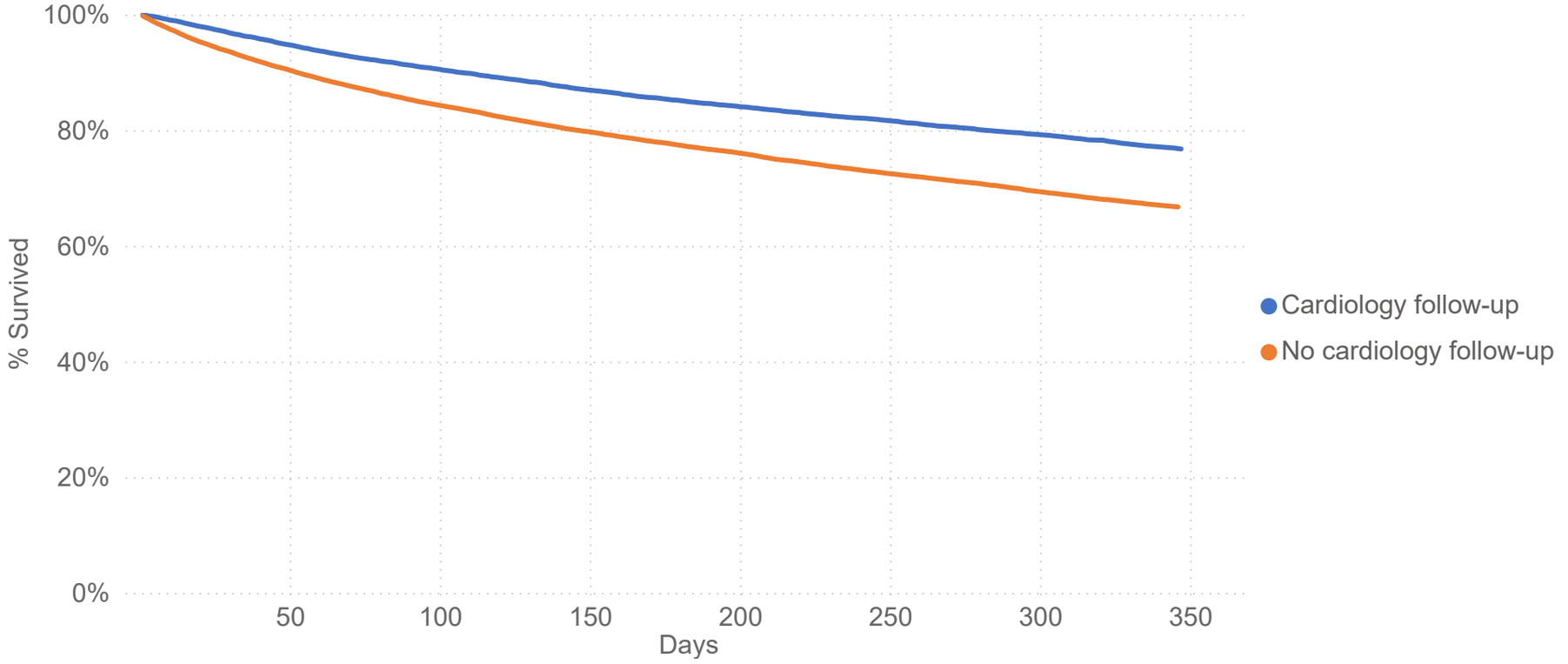


Number at risk

Cardiology	19671	18509	16896	13999	11402	8958	6554	4260
General Medicine	6992	6118	5331	4241	3381	2573	1836	1164
Care of the elderly	15389	14077	12605	10238	8465	6592	4872	3212

1-year survival is better for those receiving cardiology follow-up

Kaplan Meier plot of survival following discharge from hospital according to cardiology follow-up, 2024/25

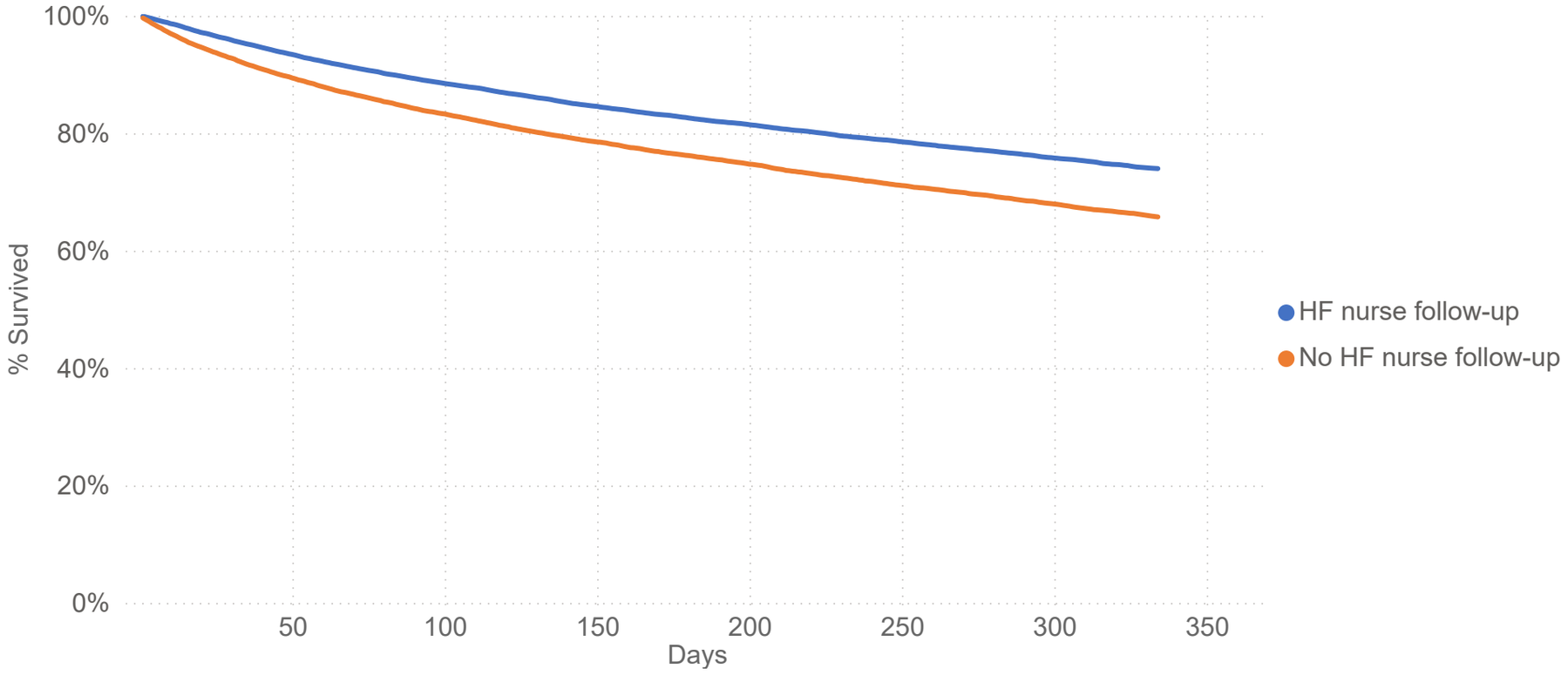


Number at risk

Cardiology follow-up	30341	27441	24521	20004	16279	12626	9186	5914
No cardiology follow-up	15271	14474	13169	10856	8912	6970	5169	3445

1-year survival is better for those having HF specialist nurse follow-up

Kaplan Meier plot of survival following discharge from hospital according to HF nurse follow-up, 2024/25

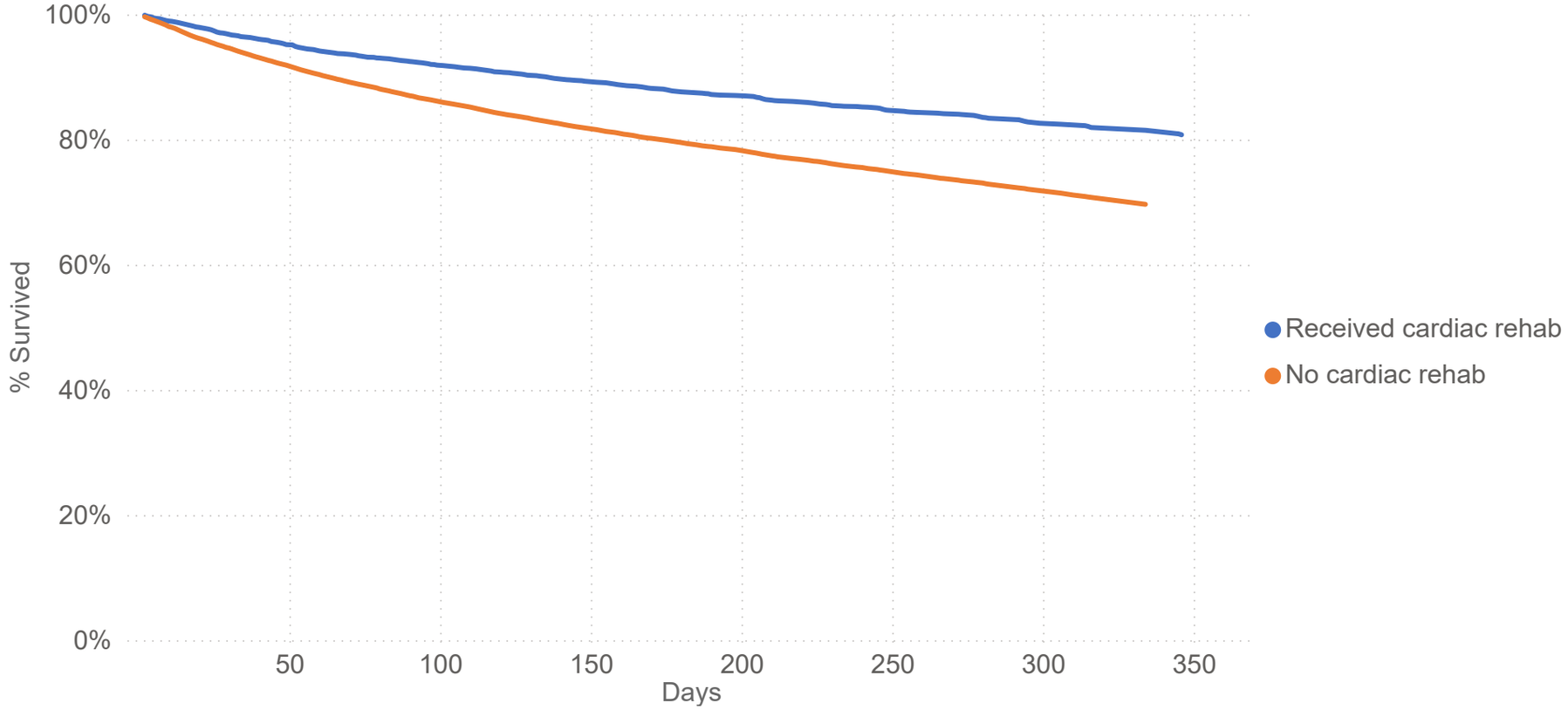


Number at risk

HF nurse follow-up	17975	16085	14370	11660	9424	7328	5285	3368
No HF nurse follow-up	27733	25919	23415	19311	15854	12315	9087	5999

1-year survival is better for those referred for cardiac rehabilitation

Kaplan Meier plot of survival following discharge from hospital according to referral for cardiac rehabilitation, 2024/25

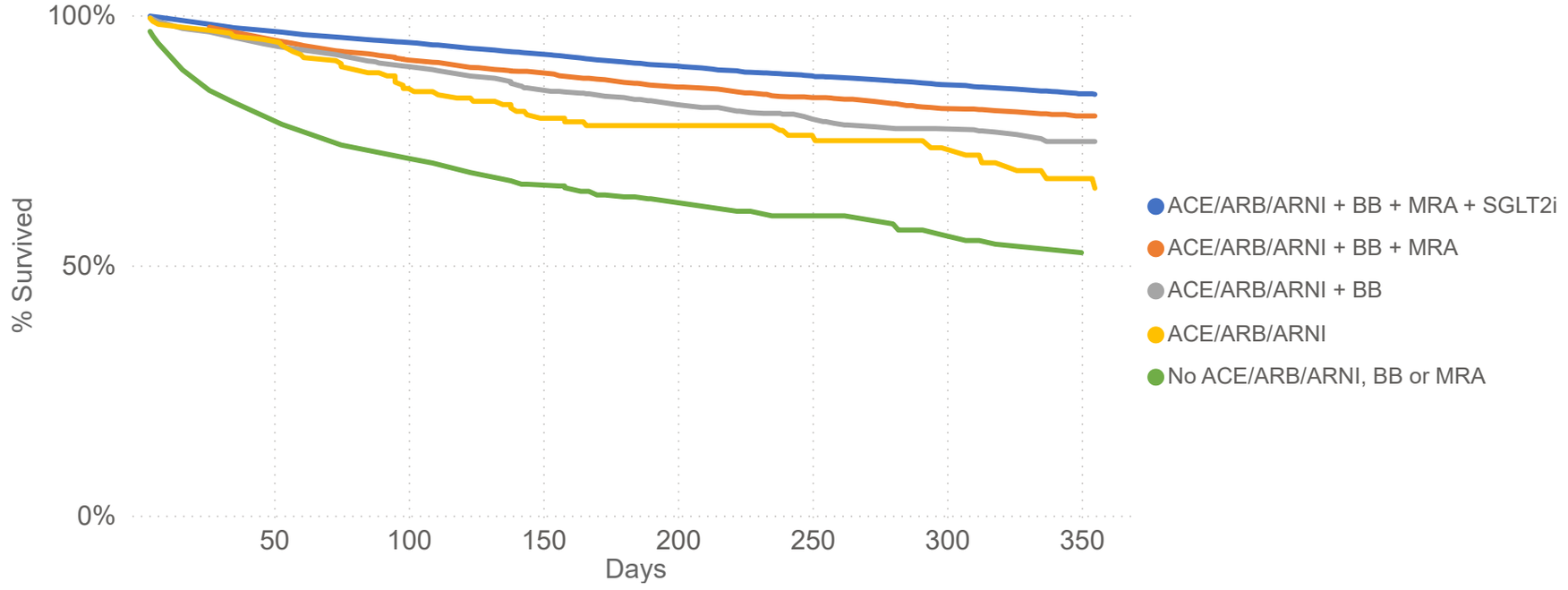


Number at risk

Received cardiac rehab	26617	24433	21871	17774	14434	11227	8253	5346
No cardiac rehab	4413	4199	3903	3320	2745	2153	1566	1039

1-year survival much better for those with HFrEF discharged on all four classes of disease-modifying drugs

Kaplan Meier plot of survival for patients with HFrEF following discharge from hospital according to drugs received, 2024/25

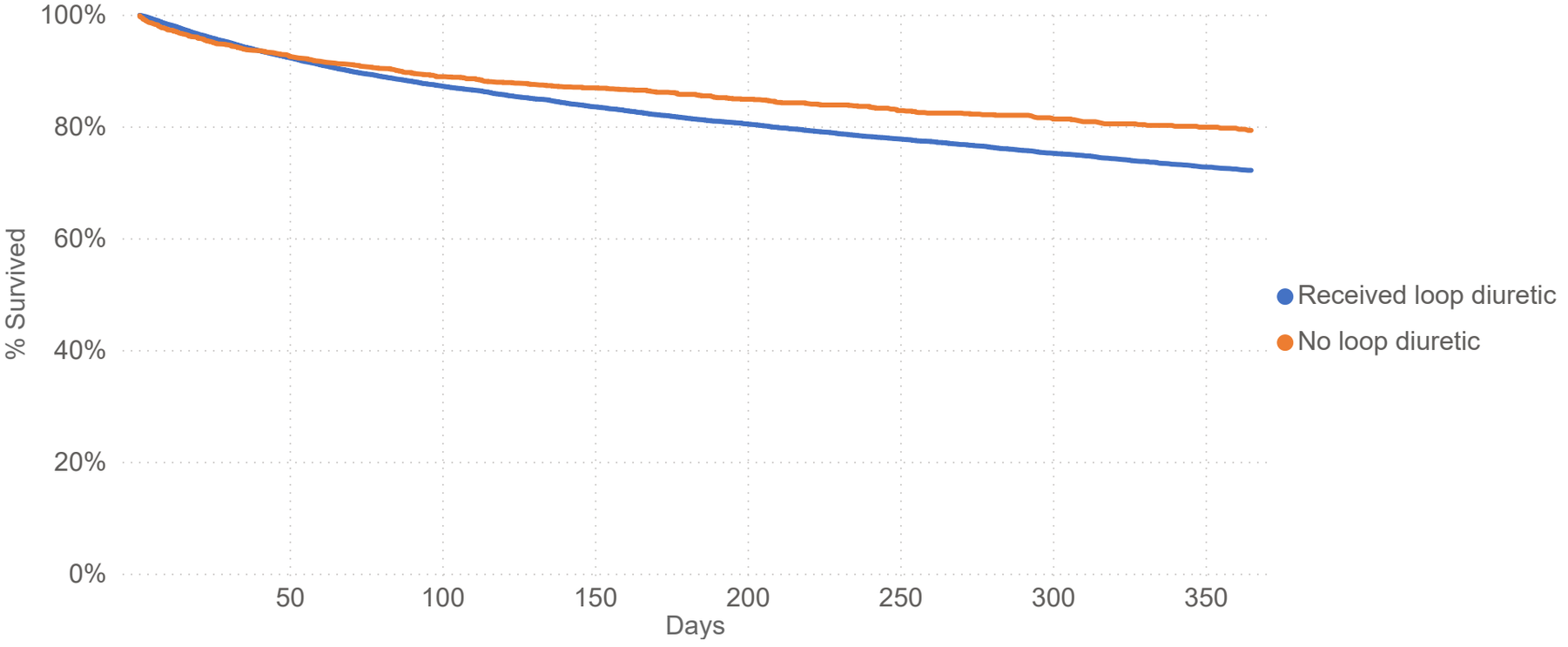


Number at risk

ACE/ARB/ARNI + BB + MRA +SGLT2i	8505	8228	7656	6435	4343	4181	3110	2057
ACE/ARB/ARNI + BB + MRA	3512	3322	3038	2514	2038	1639	1201	790
ACE/ARB/ARNI + BB	3101	2930	2699	2249	1878	1475	1086	694
ACE/ARB/ARNI	984	931	836	689	556	432	309	206
No ACE/ARB/ARNI, BB or MRA	1977	1680	1452	1180	958	738	522	337

1-year survival is worse for those discharged on loop diuretics

Kaplan Meier plot of all-cause mortality following discharge from hospital according to loop diuretic prescription, 2024/25



Received loop diuretic	2047	1896	1743	1487	1219	953	705	465
No loop diuretic	15838	14622	13196	10981	9023	7096	5227	3477