NCAP

NATIONAL CARDIAC AUDIT PROGRAMME

NICOR

Transcatheter Aortic Valve Implantation (TAVI) Registry

Interim Report 2026

Procedure Urgency

Including data up to 2024/25

BCIS

Report at a glance

This report has examined the differences between people having elective and urgent TAVI using national audit data. Four questions were addressed.

Do mortality rates differ beyond 30 days?
Urgent TAVI carries higher mortality in-hospital, at 30 days, and out to one year after the procedure. Elective case mortality has been gradually improving over time while urgent case mortality has remained unchanged. This sustained gap points towards factors beyond the procedure itself, such as the pre-existing clinical state of urgent patients as a driver of worse outcomes.

Who are the people needing urgent TAVI?
Urgent TAVI patients are not simply elective patients treated more quickly: they are a clinically distinct group. They are more likely to be presenting with the most severe disease such as NYHA Class IV symptoms, poor left ventricular function, and significant mitral regurgitation. These three markers of advanced disease cluster together in urgent patients and each compounds clinical risk. Sex and median age do not differ between urgent and elective patients, suggesting the differences are driven by disease stage and pathway factors rather than demographic characteristics. A larger proportion of younger people needing TAVI have urgent procedures, and people from deprived areas who need TAVI are more likely to have this as an urgent procedure highlighting pathway factors that could be improved.

Are procedures different and are there more complications?
The procedural profile of urgent and elective TAVI is now remarkably similar. Percutaneous transfemoral access is used in 97% of all cases, exceeding the national target, with no meaningful difference between urgency groups. Across all four complication measures - stroke, major bleeding, vascular access complications, and aortic regurgitation - rates have fallen substantially over the past decade and the confidence intervals for urgent and elective cases overlap throughout, meaning procedural complication rates are indistinguishable between the two groups. This is a critical finding. The mortality gap cannot be explained by higher complication rates in urgent cases. Procedural performance is no longer the limiting factor and the opportunity to improve outcomes lies elsewhere in the pathway.

What are the healthcare system factors that influence urgency?
TAVI activity is growing nationally, surpassing 10,000 procedures in 2024/25, with urgent cases now representing 23% of activity. However substantial variation exists at every level of the system. Procedure rates vary widely across Cardiac Networks and Integrated Care Boards even after age standardisation, so there is variation that cannot be explained by population differences alone. This points to the possibility of unequal access as a treatment option across the country, accepting that there may be variation in treatment strategies for patients with acute presentations. Urgent case proportions vary considerably between hospitals independently of centre volume. Urgency status remains unrecorded in a significant proportion of cases at some centres. Data completeness is otherwise high and equivalent between elective and urgent cases, though heart and valve function measures and post-procedural indices, the fields most critical for robust risk adjustment, fall below the threshold needed for reliable analysis.

Recommendations

1. Prioritise earlier identification and elective listing
The most powerful lever for improving outcomes in urgent TAVI is preventing it. This means implementing the GIRFT Fast-track pathway. Patients who deteriorate to Class IV symptoms, poor LV function, or acute haemodynamic compromise before intervention carry substantially higher risk at every timepoint than those treated electively at an earlier stage. Investment in timely echocardiography, clear referral pathways from primary and secondary care, and awareness of aortic stenosis among general physicians and GPs, particularly for younger patients and those from more deprived areas should be prioritised. Future NICOR datasets will report referral to treatment times.

2. Address the deprivation and access gradient
Patients from the most deprived areas receive fewer TAVI procedures overall and are more likely to receive them urgently. This compounding inequality has direct mortality implications. Commissioners and Cardiac Networks should examine local referral and access pathways with specific attention to whether patients from deprived communities are being identified and offered timely elective treatment on an equitable basis.

3. Investigate variation in urgent case rates across hospitals and regions
The variation in procedure rates across networks and the wide variation in urgent case proportions between hospitals, independent of centre volume requires structured investigation. Understanding how much of this variation reflects genuine differences in patient need, how much reflects referral and pathway differences, and how much reflects inconsistency in how urgency is defined and recorded, is essential before any centre-level conclusions can be drawn.

4. Ensure equivalent post-procedural support for urgent patients
The persistence of excess mortality to one year in urgent cases suggests that the recovery period, not just the procedure, is where these patients remain vulnerable. All patients should have equivalent access to structured follow-up, medication optimisation, and cardiac rehabilitation but this may be particularly necessary for urgent patients. The current status of these pathway aspects should be examined at both national and centre level.

5. Improve data completeness in key fields
Heart and valve function measures and post-valve indices - the fields most important for characterising patient risk and enabling fair risk-adjusted comparison between hospitals - fall below the 90% completeness threshold. All centres should prioritise improvement in these specific fields. In parallel, the development and implementation of risk-adjusted mortality reporting at hospital level, incorporating urgency status as a central variable, should be progressed as a priority to enable meaningful and equitable benchmarking across the national programme.

6. Standardise the definition and recording of urgency
Urgency status is the single variable that most powerfully shapes outcomes in this dataset, yet it is inconsistently recorded and likely inconsistently defined across centres. Establishing a clear, shared national definition of urgent TAVI and ensuring complete recording across all centres is a prerequisite for the fair comparison of outcomes, the accurate quantification of case mix, and the ability to track whether urgent case rates are changing over time in response to pathway improvements.

This report examines the differences between people having elective and urgent TAVI from the national audit of Transcatheter Aortic Valve Implantation (TAVI)

The Transcatheter Aortic Valve Implantation (TAVI) audit is part of the National Cardiac Audit Programme (NCAP) administered by the National Institute for Cardiovascular Outcomes Research (NICOR) with the professional societies. An annual report details activity for TAVI procedures for England & Wales and Northern Ireland. It summarises the number of patients being treated, where this treatment is delivered, the quality of the care and the outcomes for patients. Details around the quality improvement (QI) metrics for the annual report can be found here.

In previous reports we have shown that urgent cases make up about a quarter of all TAVI cases and that the number of urgent cases in continues to increase, albeit more slowly than elective cases. The in-hospital and 30-day mortality rates for urgent cases is higher than for elective cases.

In this themed report we have explored the differences between elective and urgent TAVI cases to better understand this observation and its implications for improving the outcomes for people treated by urgent TAVI.

We have addressed four questions:

1. Do the mortality rates for urgent and elective cases differ beyond 30 days?
2. Who are the people needing urgent TAVI and how do they differ from those having elective TAVI?
3. Are the TAVI procedures done differently and are there more complications in people having urgent TAVI compared with those having elective TAVI?
4. What are the healthcare system factors that differ between people needing urgent TAVI compared with those having elective TAVI?

We have used these insights to develop recommendations for future actions to improve the outcomes for people needing urgent TAVI.

This report is of value to a wide range of stakeholders but importantly it allows patients and their relatives to better understand TAVI practice and its outcomes in the UK. **The slides in the report are interactive so you can select and explore the data that interest you**. All summary statistics are based on data that are self-reported by hospitals and unadjudicated unless otherwise stated. The TAVI audit relies on the active contribution of all participating UK TAVI centres. Detailed information has been entered by hospitals, queried and cleaned before analysis is undertaken by the NICOR team. We are very grateful to all the staff at the contributing centres for their time in developing this audit. We will continue to work closely with TAVI centres, patients and other stakeholders to improve the quality of audit data and how these are used to improve the delivery of high quality TAVI care in the UK.

NICOR TAVI audit team

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Overall in-hospital mortality remains low though with a higher rate for urgent cases

The overall in-hospital mortality rate following a TAVI procedure has reduced over time but the mortality rate for people needing urgent TAVI is consistently higher than for elective cases.

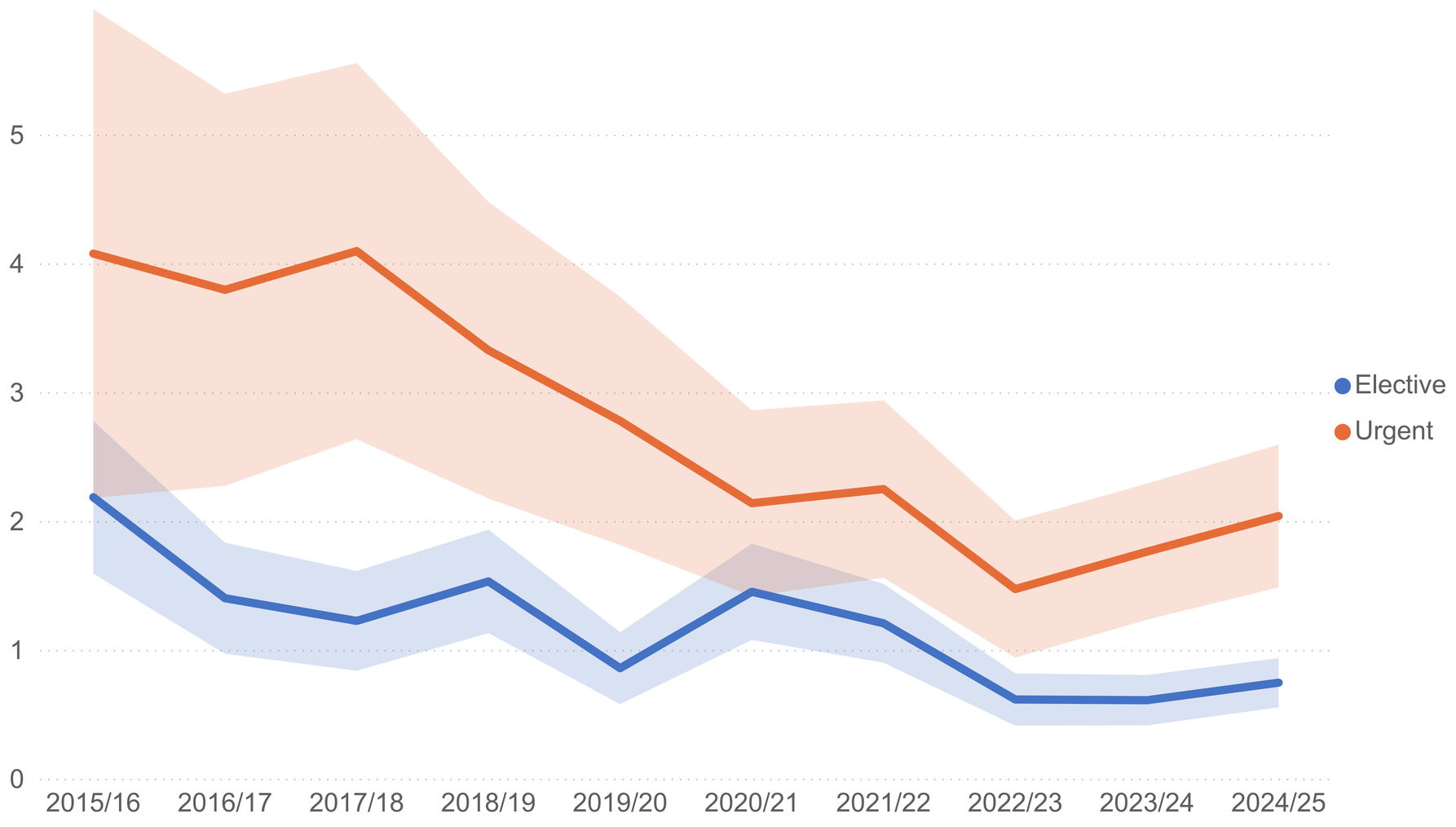
The 2020/21 mortality rates may reflect the impact of the COVID-19 pandemic.

The need for an urgent procedure is a well-recognised factor in contributing to a worse outcome for many cardiac procedures. However, the exact reasons for this finding are not known.

It is possible that the additional risk is related to later presentation, sicker patients or more complicated procedures in those needing urgent treatment compared with planned elective treatment.

Note: In-hospital mortality is self-reported by hospitals. The shaded areas around the lines represent the 95% confidence interval of the mean.

In-hospital mortality (%) following a TAVI procedure by urgency (2015/16 to 2024/25)



Data Completeness
96.4%

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The thirty-day mortality rate for elective cases continues to decrease but remains unchanged for urgent cases

The overall mortality rate at 30-days following TAVI procedures has reduced over time but the mortality rate for people needing urgent TAVI is consistently higher.

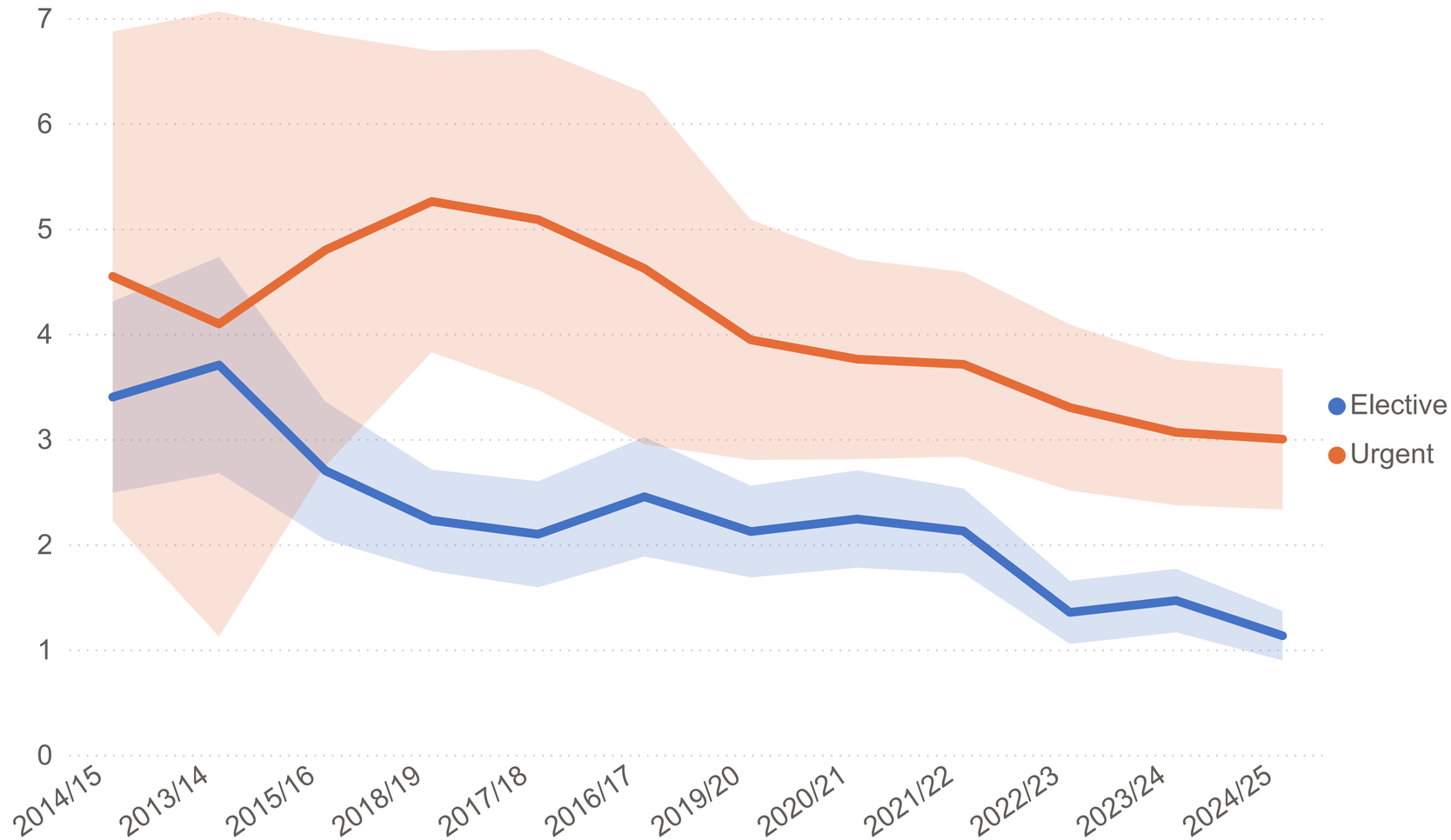
Early death rates after hospital discharge can be established by comparing these results with the in-hospital mortality rates in the previous graph. For elective cases, the in-hospital mortality is under 1% and increases to about 1.5% at 30 days. For urgent cases the in-hospital mortality is about 2% and increases to 3% by 30 days.

The reasons for these early additional deaths after hospital discharge are unknown but need to be explored.

Urgent TAVI is typically performed in patients who are clinically unstable, have deteriorated rapidly, or have been admitted acutely with decompensated aortic stenosis or cardiogenic shock. These patients are by definition at higher risk than those who have been assessed, optimised, and listed for a planned procedure. They may have greater levels of frailty, more advanced disease, significant comorbidities, and less opportunity for pre-procedural preparation including optimisation of medications, nutritional status, and cardiac function.

The figures presented in this report have not made any adjustments for these factors.

30-day mortality (%) following a TAVI procedure by urgency (2014/15 to 2024/25)



Data Completeness
100%
(ONS Data)

The one-year mortality rate for elective cases continues to decrease but remains unchanged for urgent cases

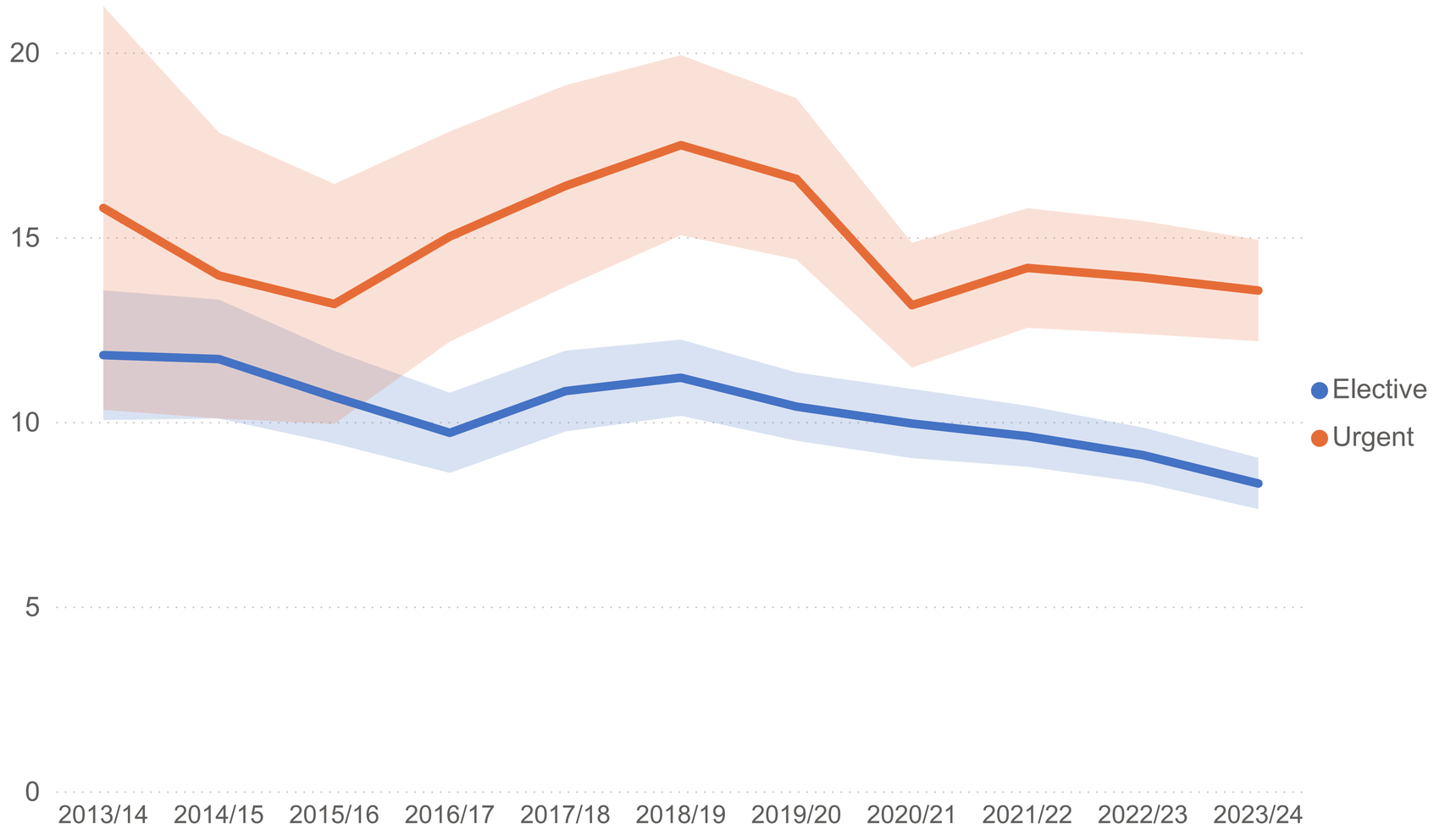
The overall mortality rate at 1 year following TAVI procedures has reduced a little over time but the mortality rate for people needing urgent TAVI is consistently higher. The outcomes for elective cases appear to be improving unlike those treated urgently

The persistence of this gap a full year after the TAVI procedure is an important finding that goes beyond the immediate risks of urgent intervention.

By 12 months, the elevated mortality in urgent cases reflects not just procedural risk but the cumulative effect of later presentation, and may reflect the consequences of acute decompensation prior to intervention, greater frailty and comorbidity burden, and potentially less structured follow-up and rehabilitation in the post-procedural period.

This audit cannot be used to explain the reasons for this finding but raises important questions about how we might improve this.

1-year mortality (%) following a TAVI procedure by urgency (2013/14 to 2023/24)



Data Completeness
100%
(ONS Data)

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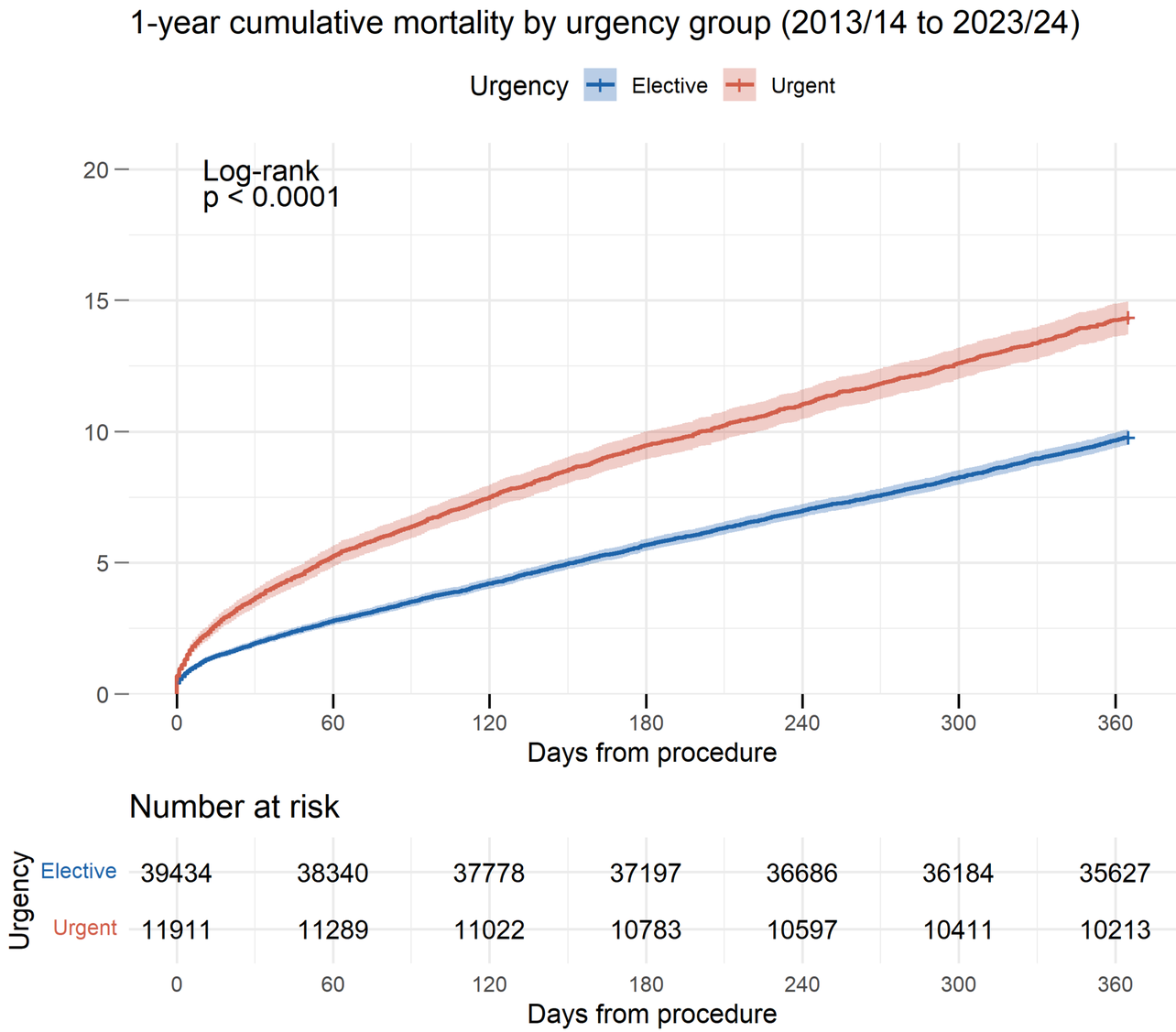
The in-hospital, 30 day and one-year mortality rates for elective cases are lower than those for urgent cases

The overall mortality rate following TAVI procedures for people needing urgent TAVI is consistently higher than those having elective TAVI.

The reasons for the elevated mortality in urgent cases are not known. They may reflect several factors such as the health of people needing urgent TAVI and the care they get after the procedure.

The information shown on this graph has not been 'adjusted' and people needing urgent TAVI may be older, sicker and more frail. These factors alone may explain these findings (and are further explored in this report) but the reason for why they need an urgent treatment is another consideration.

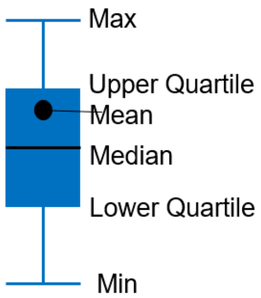


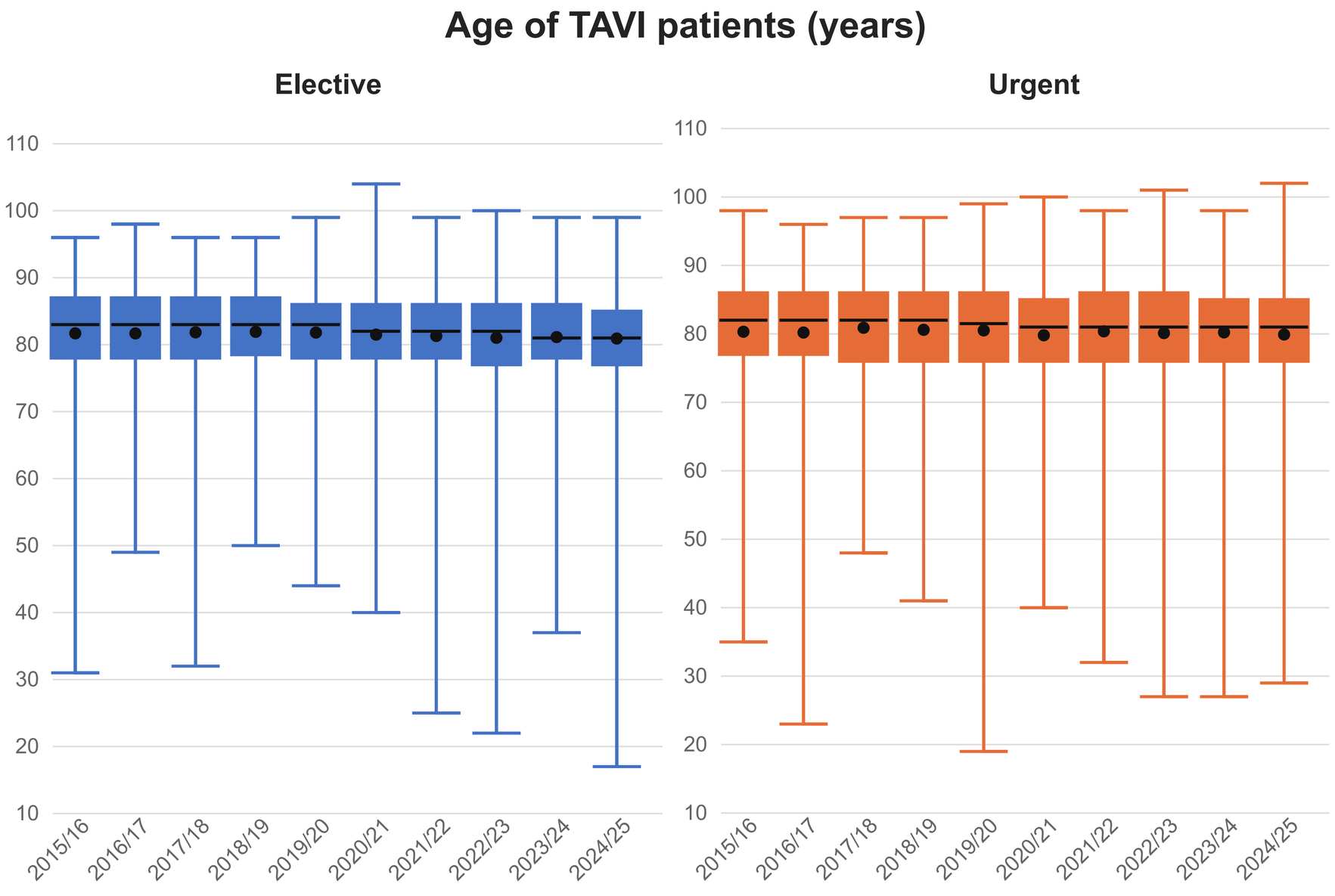
There is no age difference between people having elective or urgent TAVI

The median age of people undergoing TAVI in the UK has not changed significantly over the past decade.

There is no difference in the median age of people having elective or urgent TAVI.

Key to reading the box and whisker chart





TAVI procedures performed on patients aged 70 years or less are more often urgent cases

This figure shows the proportion of urgent TAVI according to age group.

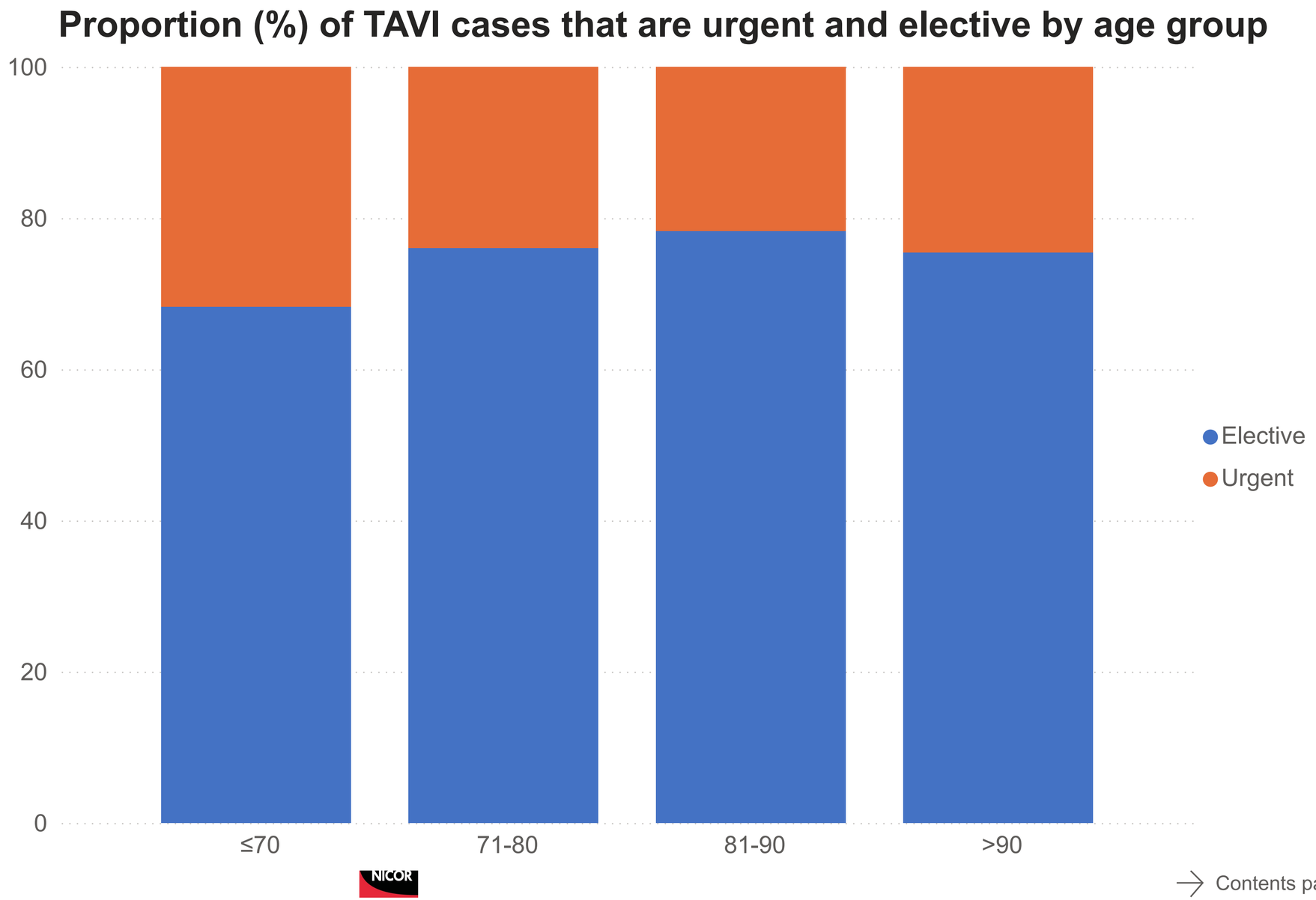
4,732 people aged 70 or below have been treated by TAVI and 1,501 (32%) of these had urgent TAVI. Fewer TAVI procedures overall are performed for this age group, but proportionately more of them are undergoing an urgent procedure.

The high urgent rate disproportionately shapes the outcomes profile of younger patients as a group. Given that younger patients would generally be expected to have better long-term survival prospects following successful TAVI than older patients, the elevated urgency rate in this group represents a particular missed opportunity both in terms of individual outcomes and in terms of the potential life-years that earlier elective intervention might have preserved.

Select financial year below.

Financial year

All



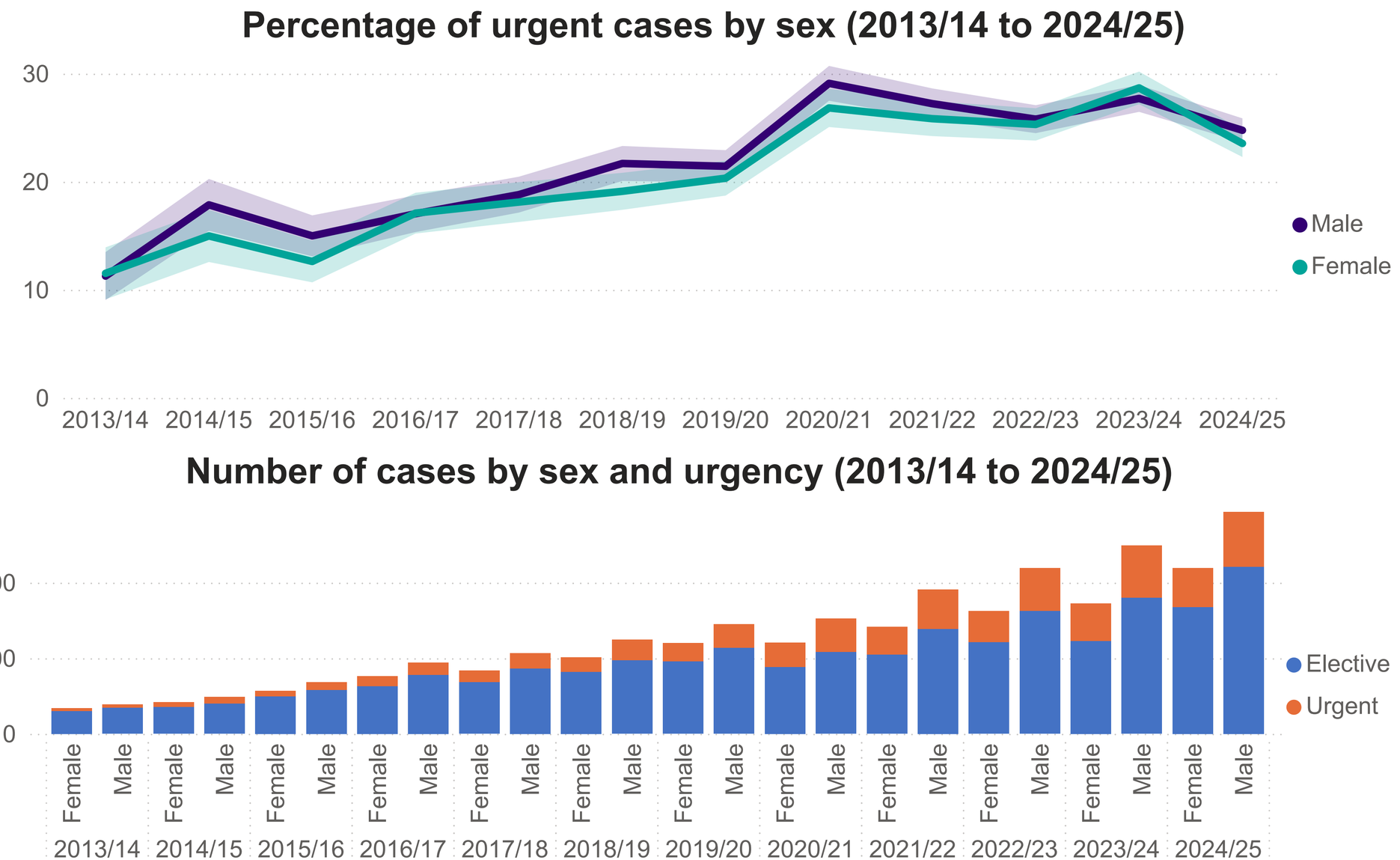
The proportion of patients treated by urgent TAVI is the same for both sexes

The proportion of patients treated urgently is the same for both sexes and has been since 2013/14.

The lower graph shows the actual numbers of males and females having elective or urgent TAVI.

Although the proportion of people needing urgent TAVI has reduced the actual numbers of people needing urgent TAVI have increased. In total 887, 1,040, 1,131, 1,381, 1,453 males had urgent TAVI over the past 5 years compared with 647, 732, 822, 990 and 1,032 females.

Note: The shaded areas in the graphic represent the 95% confidence interval around the mean line.



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People from more deprived areas are less likely to get TAVI and more likely to need urgent TAVI

The top chart shows the total number of TAVI procedures by decile of patients' level of deprivation, measured using the Index of Multiple Deprivation (IMD). This ranks areas from the most deprived (decile 1) to the least deprived (decile 10).

Fewer TAVI procedures are performed for patients from more deprived areas. This gap in procedure rates is not fully explained by differences in population size and suggests that patients from more deprived backgrounds may face greater barriers to accessing this treatment.

The bottom chart shows the proportion of urgent cases in each IMD decile. Across all groups the majority of TAVI procedures are planned in advance as elective cases. However, patients from the most deprived areas are more likely to undergo TAVI as an urgent procedure.

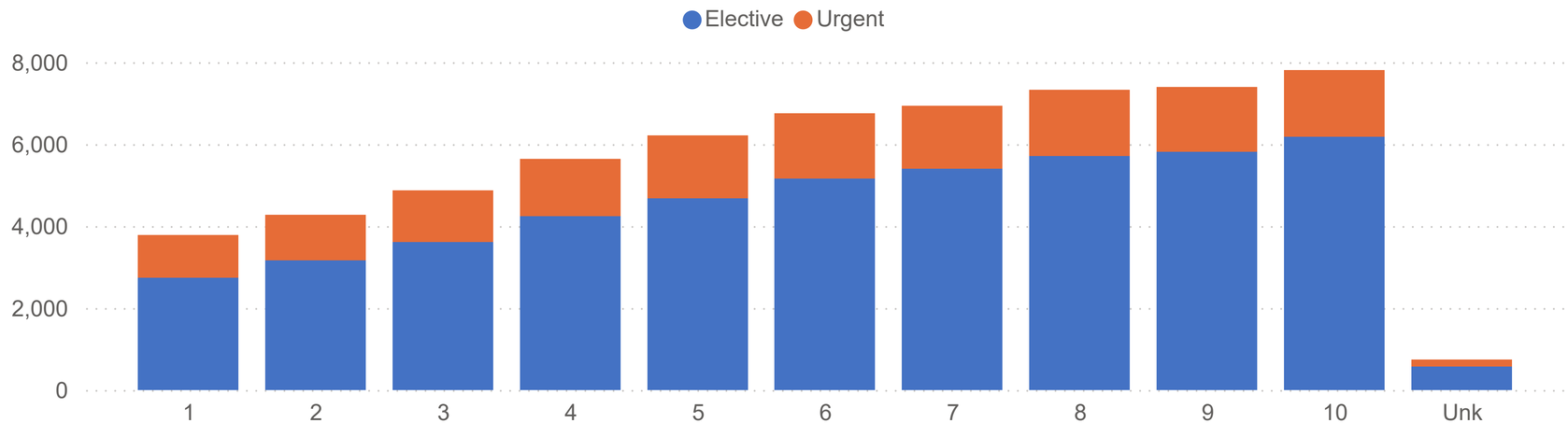
Together, these two charts describe a compounding pattern of inequality. Patients from the most deprived areas not only receive fewer TAVI procedures overall, they are also more likely to receive them urgently, at a point when their condition has become more acute and when the risks associated with the procedure are higher. Further work is needed to understand the reasons behind these observations, which have implications for planning and delivering cardiac services.

Select financial year below.

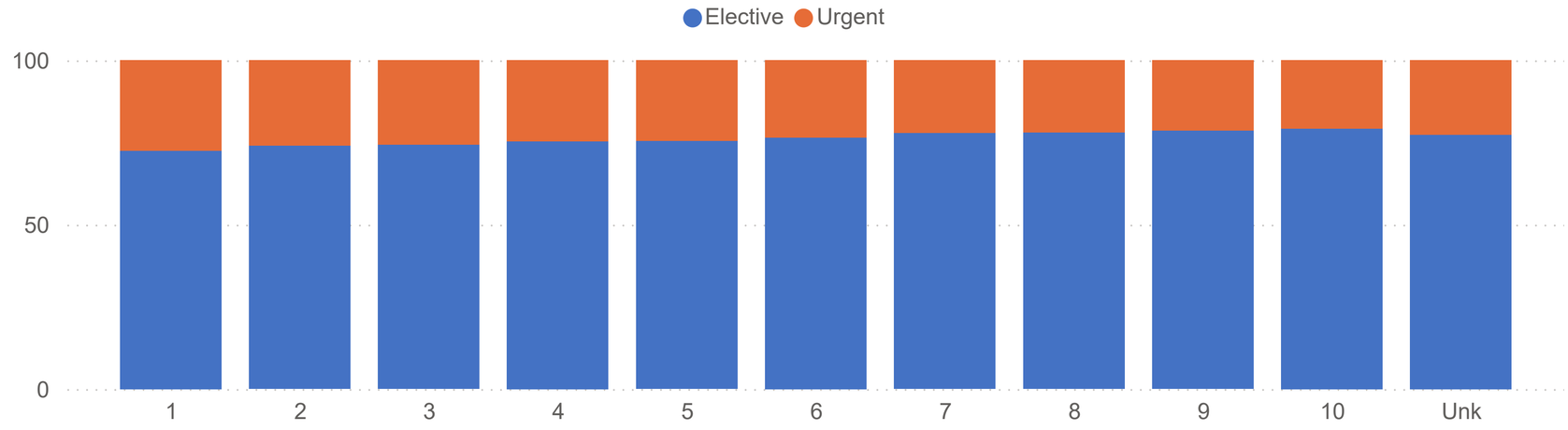
Financial Year

All

Number of urgent and elective TAVI cases by patient IMD



Proportion (%) of TAVI cases that are urgent or elective by patient IMD



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People who have significant limiting breathlessness are more likely to have urgent TAVI

The New York Heart Association (NYHA) classification is a measure of heart failure symptoms — mainly breathlessness. Class I indicates no limitation and Class IV indicates symptoms present at rest or with any activity.

The chart shows the proportion of elective and urgent TAVI procedures within each NYHA class. Across Classes I, II and III the majority of procedures are elective. However, in Class IV cases, urgent procedures account for approximately half of all TAVI cases. Patients in Class IV are by definition experiencing breathlessness at rest or with minimal activity, reflecting significant haemodynamic compromise and a clinical state that frequently requires urgent rather than planned intervention.

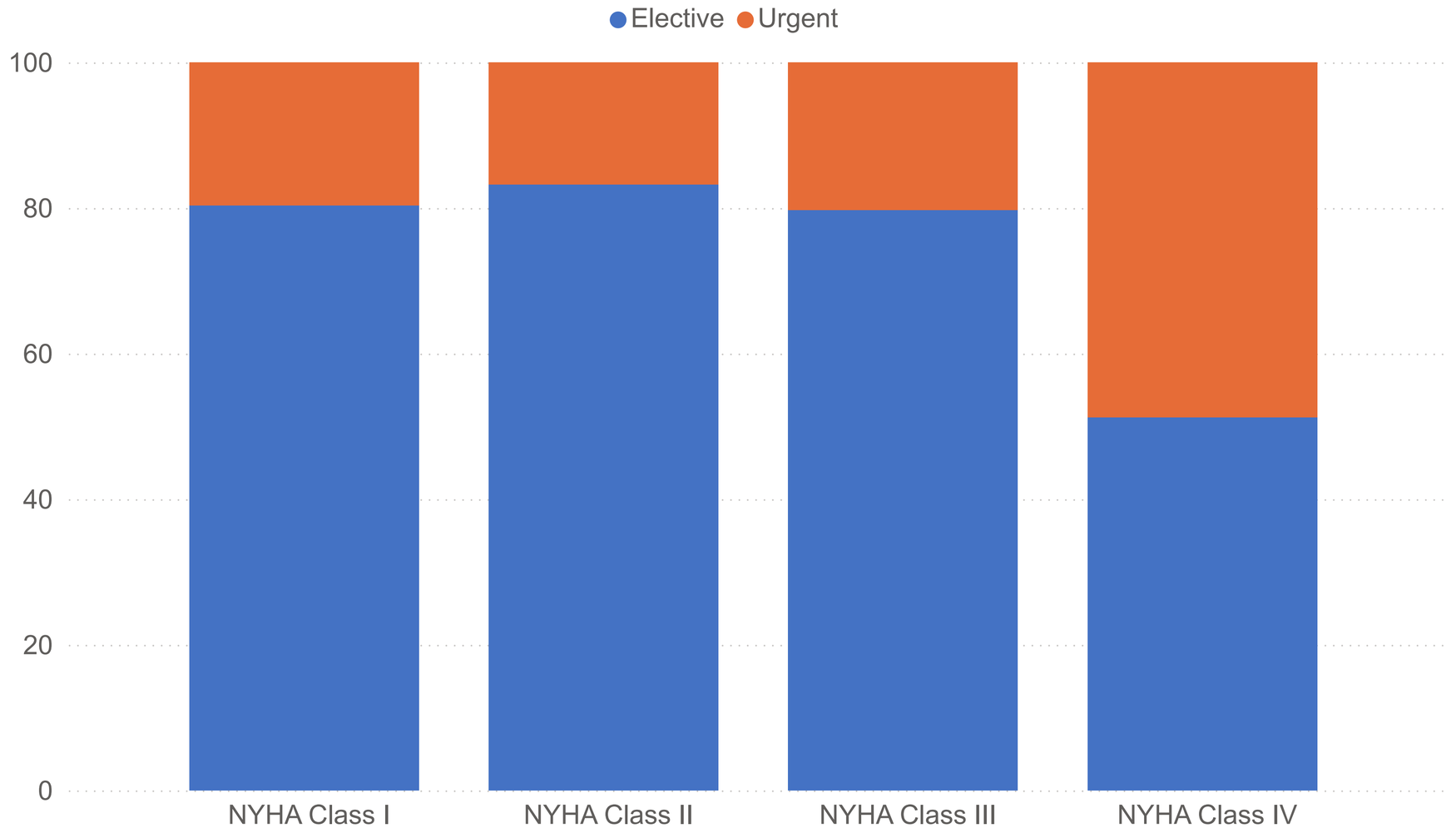
This analysis does not tell us why these patients had Class IV symptoms at the time of treatment. For some this may reflect the natural and rapid progression of their disease. For others it raises the question of whether earlier identification and referral could have allowed treatment to be delivered at a less advanced and lower risk stage. The data warrant careful consideration in the context of pathway planning and equity of access.

Select financial year below

Financial year

All

Percentage of elective and urgent TAVI procedures in each NYHA dyspnoea category



People with poor heart function are more likely to need an urgent TAVI

Left ventricular (LV) ejection fraction (LVEF) measures how effectively the heart's main pumping chamber is working.

A good ejection fraction (50% or above) indicates the heart is pumping normally. Fair (30–49%) and poor (below 30%) values indicate progressively worsening pump function, reflecting more advanced cardiac disease and higher clinical risk.

As LV function worsens, the proportion of urgent TAVI procedures rises substantially. In patients with good LV function the majority of procedures are elective. In those with poor LV function approximately half of all procedures are urgent - a striking shift that mirrors the pattern seen with NYHA Class IV symptoms.

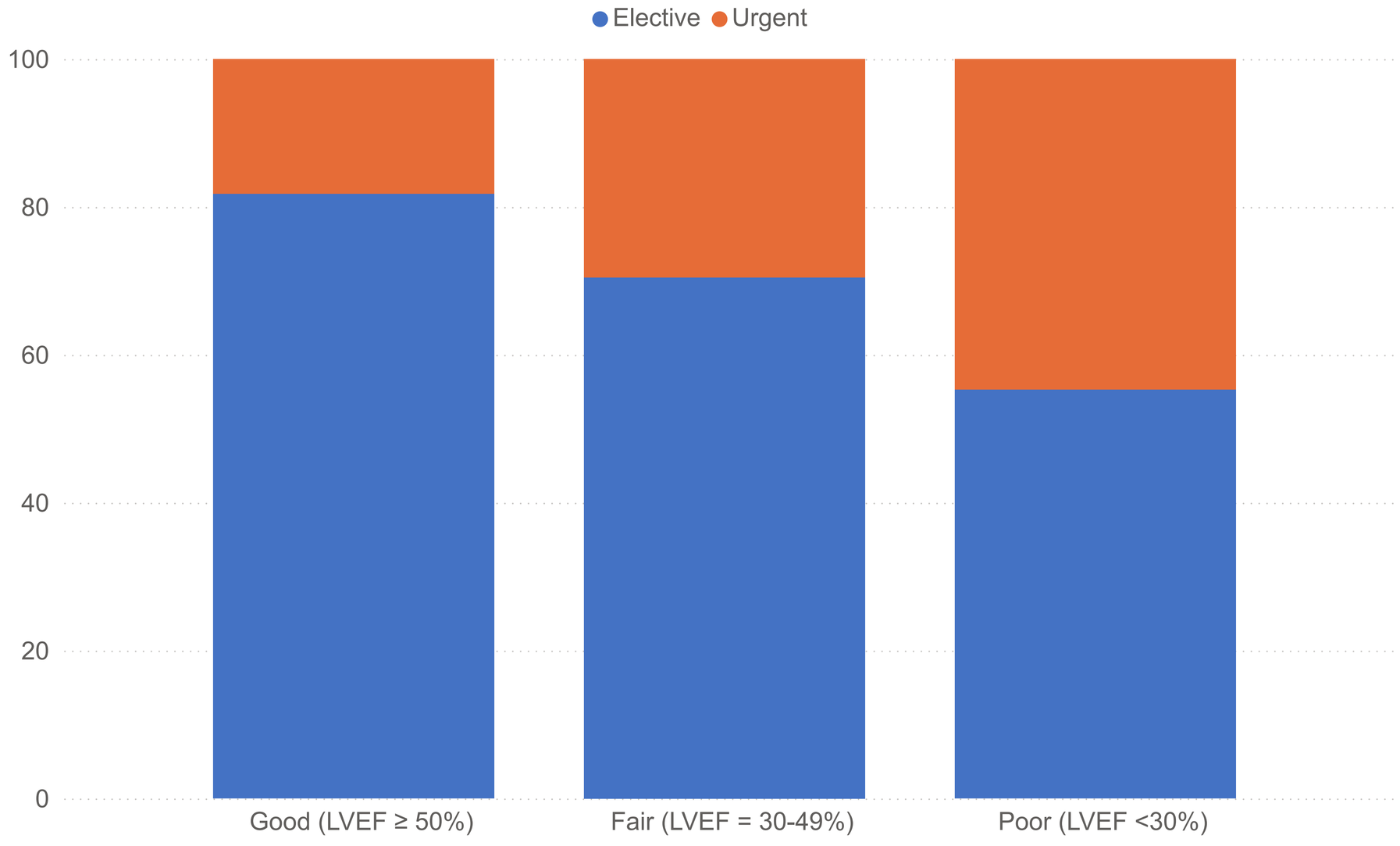
Reduced ejection fraction is itself associated with worse outcomes following TAVI. The concentration of urgent cases in those with the most impaired LV function therefore compounds an already elevated risk, with these patients undergoing intervention in a state of significant haemodynamic compromise.

Select financial year below.

Financial year

All

Percentage of elective and urgent TAVI procedures in each ejection fraction category



People with more severe mitral regurgitation are more likely to need an urgent TAVI

Mitral regurgitation (MR) refers to leaking of the mitral valve, where blood flows backwards through the valve rather than being pumped forward effectively. It is graded as none, mild, moderate, or severe. Significant MR adds to the haemodynamic burden on an already compromised heart and is associated with worse clinical outcomes. In the context of aortic stenosis, the presence of severe MR reflects a heart that is under substantial additional stress.

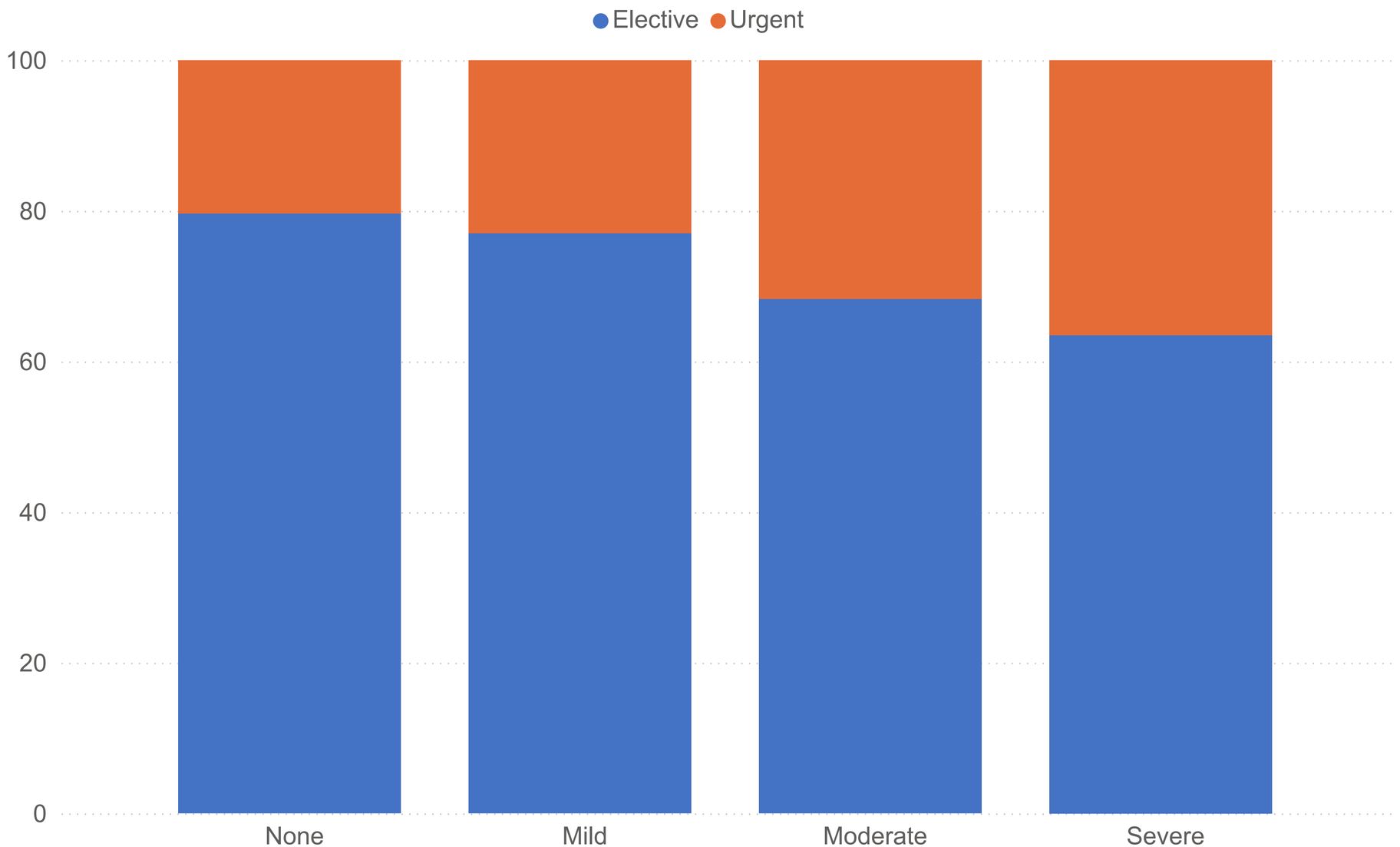
The chart shows a progressive increase in the proportion of urgent procedures as MR severity worsens. In patients with no or mild MR the majority of procedures are elective. In those with moderate and severe MR the proportion of urgent cases rises markedly, with severe MR showing the highest urgent rate of any category, consistent with the patterns seen in NYHA class and LV function

Select financial year below.

Financial Year

All

Percentage of elective and urgent TAVI procedures in each mitral regurgitation category



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People who have more advanced symptoms and impaired heart function are more likely to have an urgent TAVI

Taken together, the three charts describing NYHA symptom class, left ventricular ejection fraction, and mitral regurgitation severity tell a consistent story about who is receiving urgent TAVI and in what clinical state they are arriving.

Across all three measures, urgent procedures are concentrated in patients who are the most severely compromised. Those with the worst symptoms, the most impaired LV function, and the most significant valve leakage are all substantially more likely to be undergoing TAVI urgently than those with milder disease. Crucially these three markers are not independent - a patient with NYHA Class IV symptoms, poor LV function, and severe MR represents the convergence of multiple indicators of advanced disease, each compounding the others.

This matters for mortality because each of these factors is independently associated with worse outcomes following TAVI. When they occur together in a patient undergoing urgent intervention, without the opportunity for pre-procedural optimisation that an elective pathway allows - the cumulative risk is substantial. The elevated mortality seen at discharge, 30 days, and 12 months in urgent cases is therefore not surprising, but it is not inevitable. It reflects the clinical state in which patients are reaching treatment.

The consistent thread running through all three charts is that urgent TAVI is not simply a faster version of elective TAVI it is a fundamentally different clinical scenario, performed in patients who are sicker, more compromised, and less able to recover.

Understanding how many of these patients might have been treated earlier, at a less advanced stage of their disease, or how we can better treat them after the procedure are central questions these data collectively raise.

Almost all hospitals are using percutaneous transfemoral access in more than 90% of TAVI cases with no differences between elective and urgent cases

The transfemoral route (accessing the aortic valve via the femoral artery in the groin) is the preferred delivery method for TAVI as it is less invasive than surgical alternatives and is associated with better outcomes and faster recovery. A target of 90% of cases using the percutaneous transfemoral approach has been set as a quality standard.

In 2024/25, 97% of TAVI procedures were performed using percutaneous transfemoral access, exceeding the 90% target and reflecting a sustained increase from around 60% a decade ago. This improvement has occurred in both elective and urgent cases. Almost all hospitals now meet the 90% target, with one centre still transitioning away from a previously predominant surgical transfemoral programme.

This trajectory represents a significant and sustained improvement in how TAVI is delivered nationally. The widespread adoption of the least invasive access route is likely to have contributed to improvements in safety across all patients regardless of urgency.

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

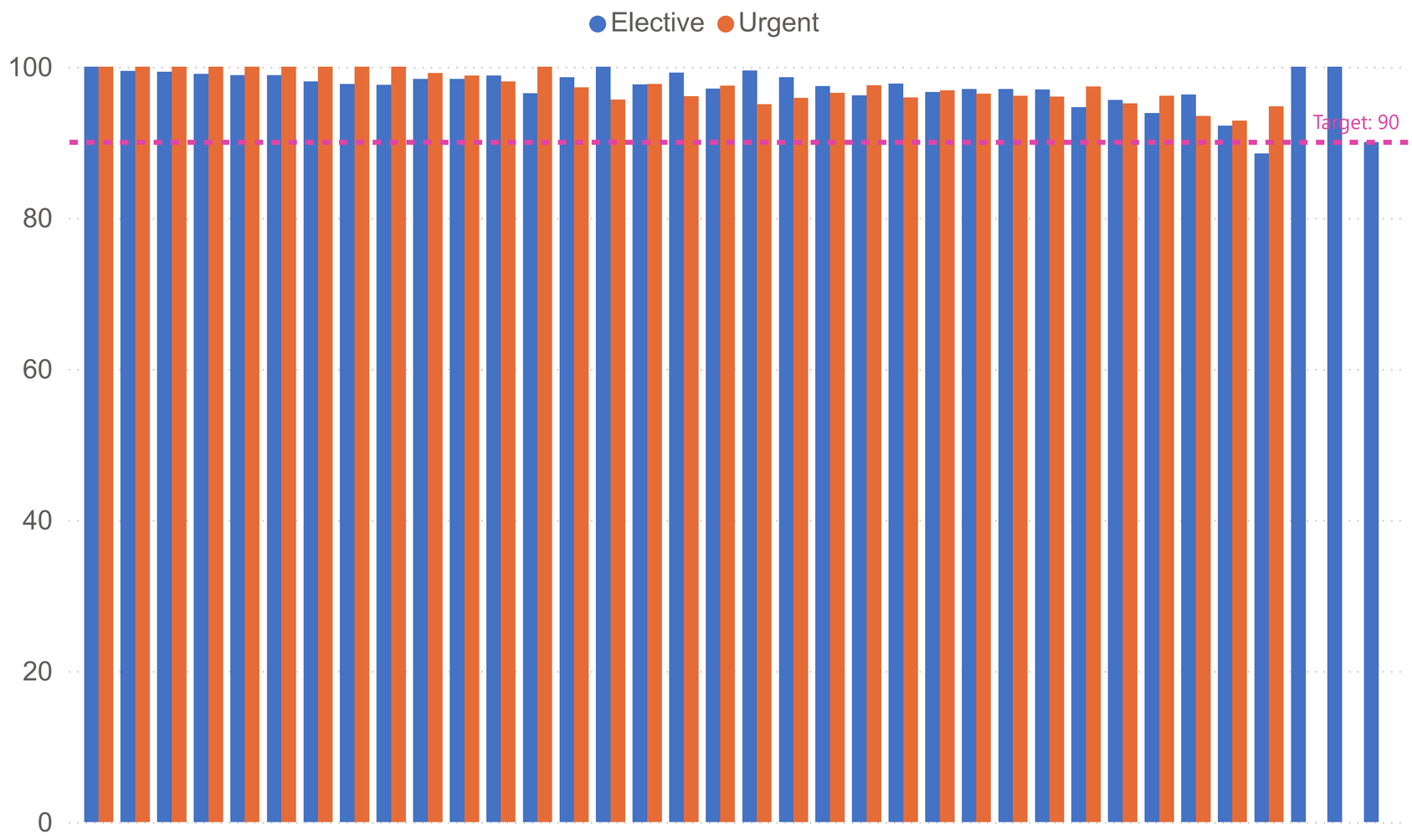
Select country/Cardiac Network

All

Select hospital

All

Percentage of TAVI cases using percutaneous transfemoral delivery, by hospital and by urgency (2024/25)



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Data Completeness
99.5%

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The rate of in-hospital stroke rate has been slowly falling to under 2% with no difference between elective and urgent cases

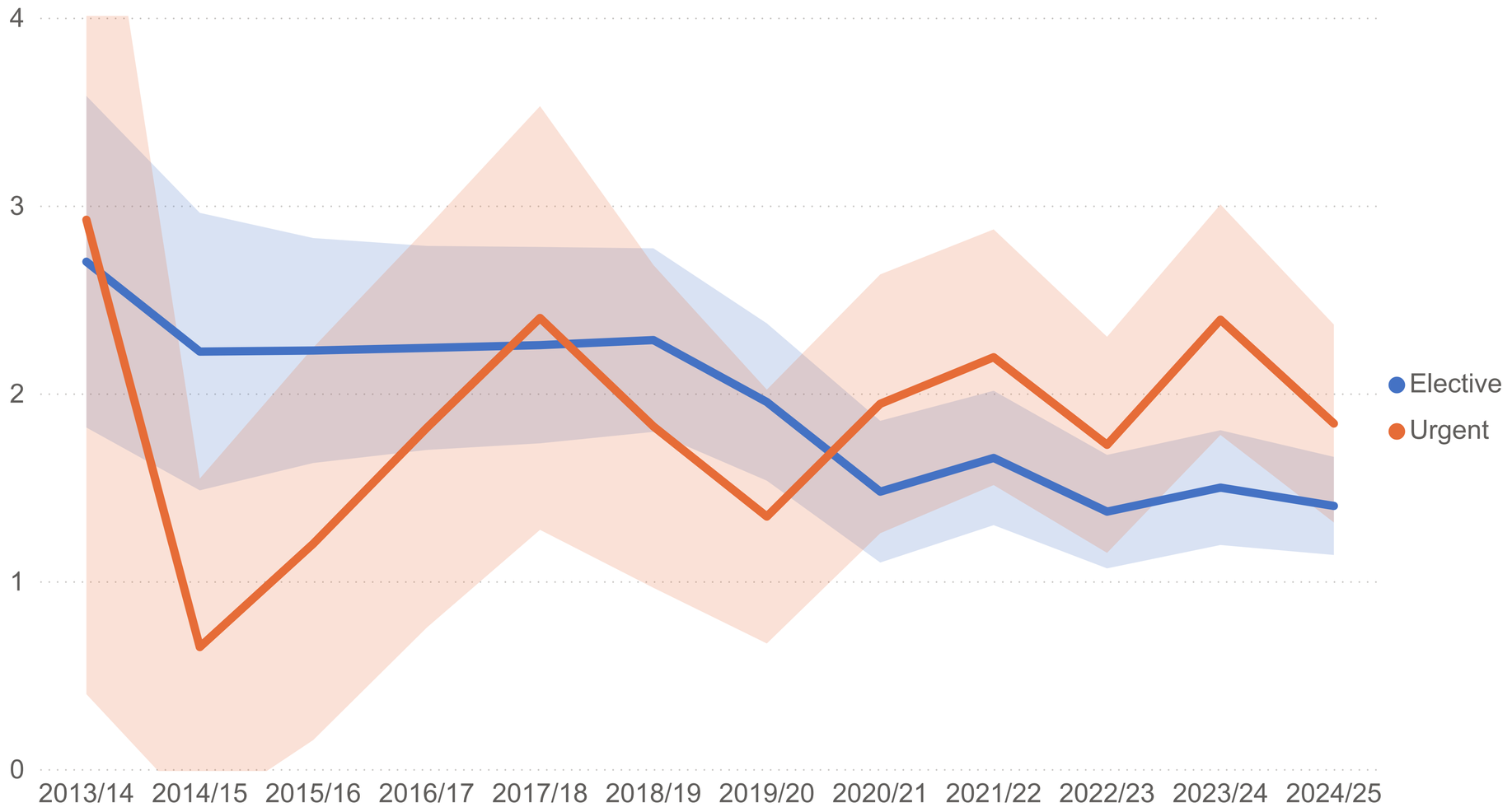
Stroke is one of the most serious complications that can occur during or after a TAVI procedure, with potentially life-changing consequences for patients.

The overall in-hospital stroke rate has fallen gradually over the past decade and now stands at about 1.5%, remaining broadly stable over recent years. While urgent cases show a nominally higher rate than elective cases, the confidence intervals around both estimates overlap considerably throughout the period. This means we cannot draw firm conclusions that urgent cases carry a meaningfully higher stroke risk from these data alone.

In-hospital stroke rates are self-reported by hospitals.

Note: Shaded areas represent the 95% confidence interval of the mean line.

Percentage of TAVI patients suffering in-hospital stroke (2013/14 to 2024/25)



Data Completeness
94.7%

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The major vascular access complication rate after a TAVI procedure continues to decline, to now under 1% with no differences between elective and urgent cases

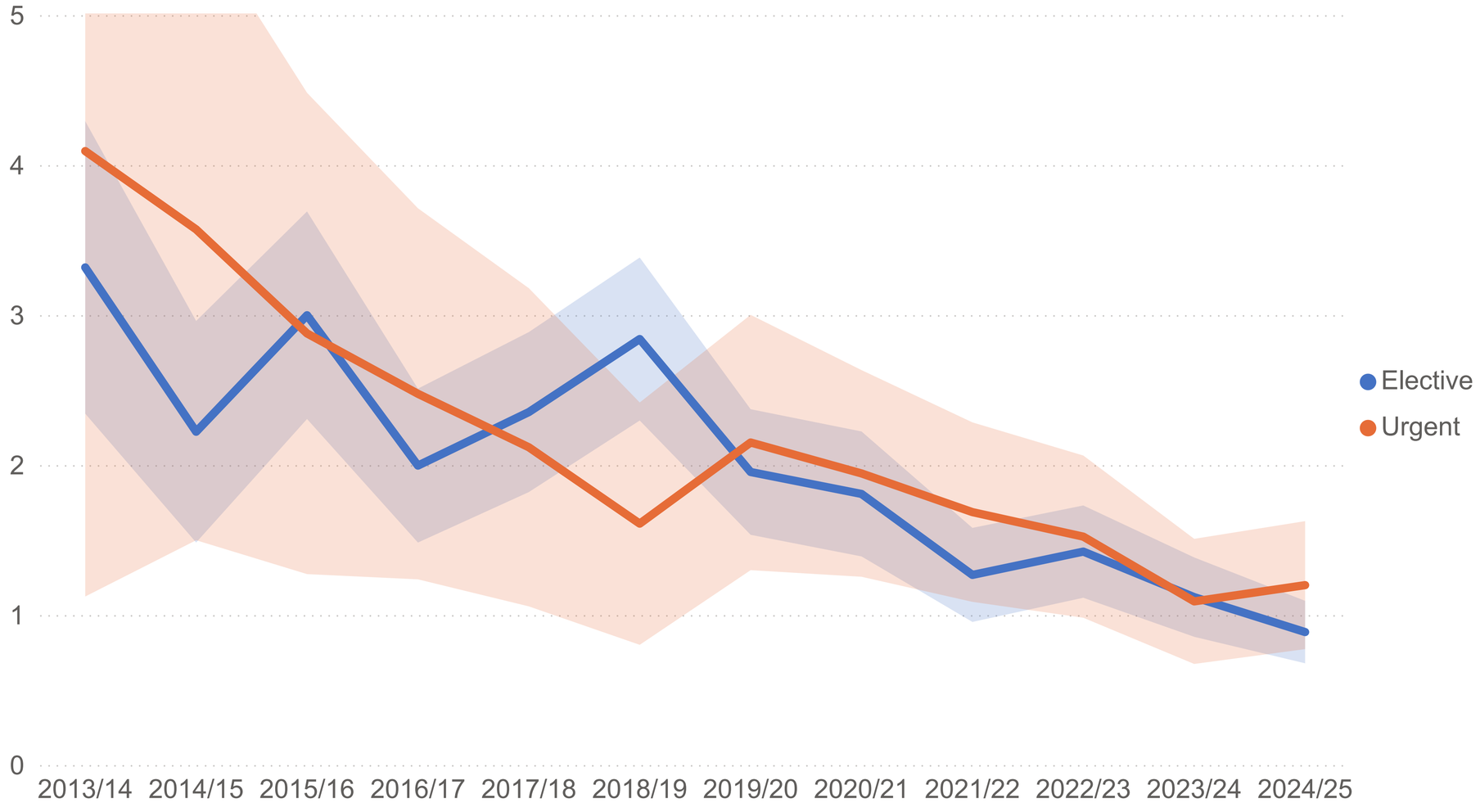
Vascular access complications (injuries to the blood vessels at the site where the TAVI device is introduced) represent a significant source of procedural morbidity, particularly in older and frailer patients where recovery can be prolonged.

The rate of major vascular access complications has fallen substantially over the past decade, from around 4% in 2013/14 to around 1%, with the downward trend evident in both elective and urgent cases.

This reflects improvements in operator experience, device technology, and vascular closure techniques. While urgent cases show nominally higher rates at certain timepoints, the confidence intervals overlap throughout much of the period and firm conclusions about a meaningful difference between the two groups cannot be drawn from these data.

Note: Shaded areas represent the 95% confidence interval of the mean line.

Percentage of TAVI patients suffering a major vascular access complication by urgency (2013/14 to 2024/25)



Major bleeding rates following a TAVI procedure have fallen to below 1% with no difference between elective and urgent cases

Major bleeding following TAVI is associated with increased length of stay, transfusion requirements, and worse clinical outcomes.

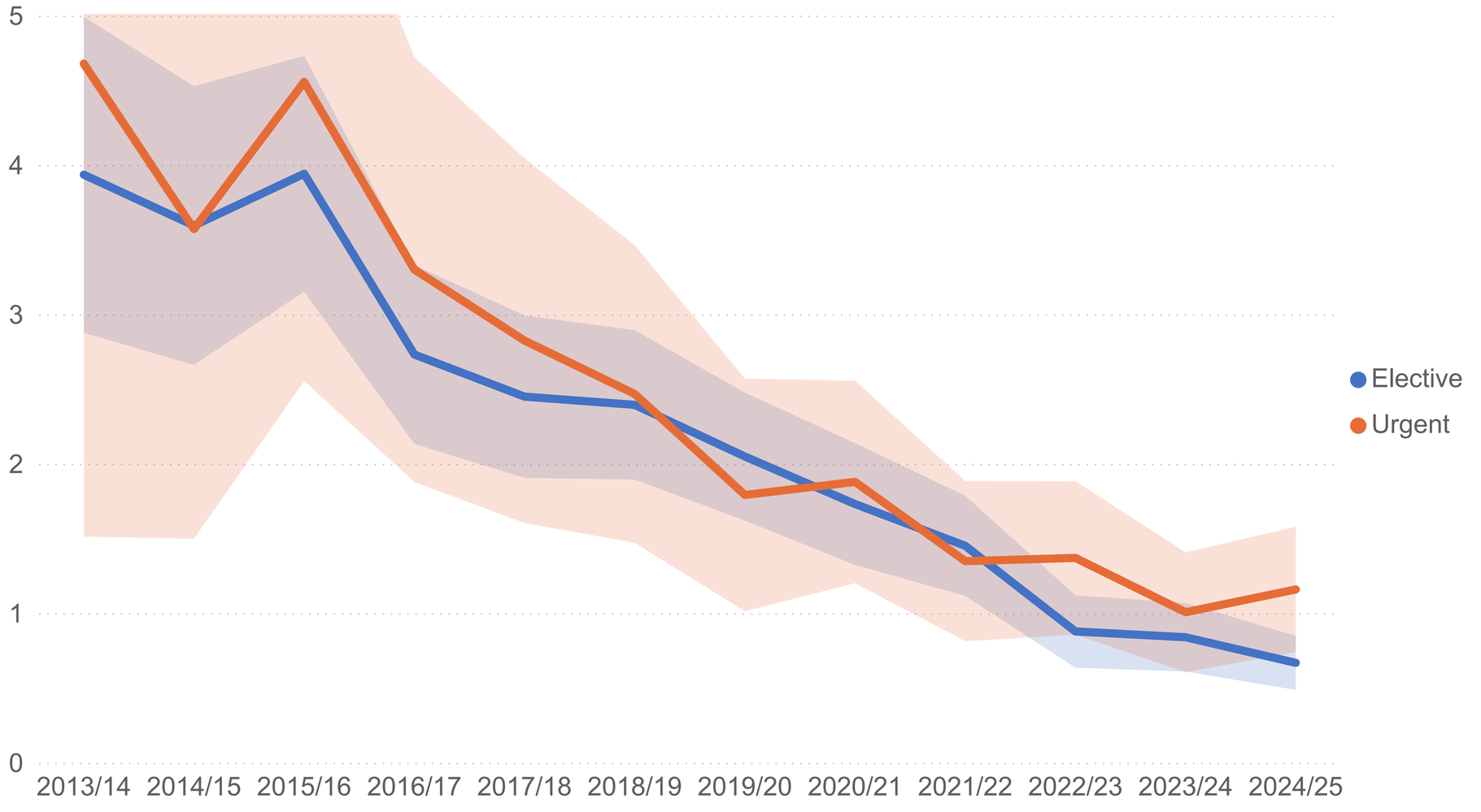
The major bleeding rate has fallen significantly over the past decade, from approximately 4% in 2013/14 to around 1% — a reduction that represents one of the most striking improvements in the procedural safety profile of TAVI nationally.

Both elective and urgent cases have contributed to and benefited from this downward trend. As with the other complication measures, urgent cases show nominally higher rates but the overlapping confidence intervals throughout the period mean this difference cannot be interpreted as a firm finding. The overall trajectory for both groups shows major improvements.

Note: Shaded areas represent the 95% confidence interval of the mean line.

Data completeness for this field is relatively low and should be taken into account when interpreting this information.

Percentage of TAVI patients suffering major bleeding (2013/14 to 2024/25)



Data Completeness
93.3%

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The rate of aortic regurgitation following a TAVI procedure continues to fall with no difference between urgent and elective cases

Aortic regurgitation following TAVI (either where the implanted valve does not close fully and allows blood to leak back, or a leak around the outside of the new valve) is a recognised complication associated with worse longer-term outcomes and has been an important focus of device development.

The rate of moderate or severe aortic regurgitation has fallen to around 1.5%, continuing a sustained downward trend from considerably higher rates a decade ago.

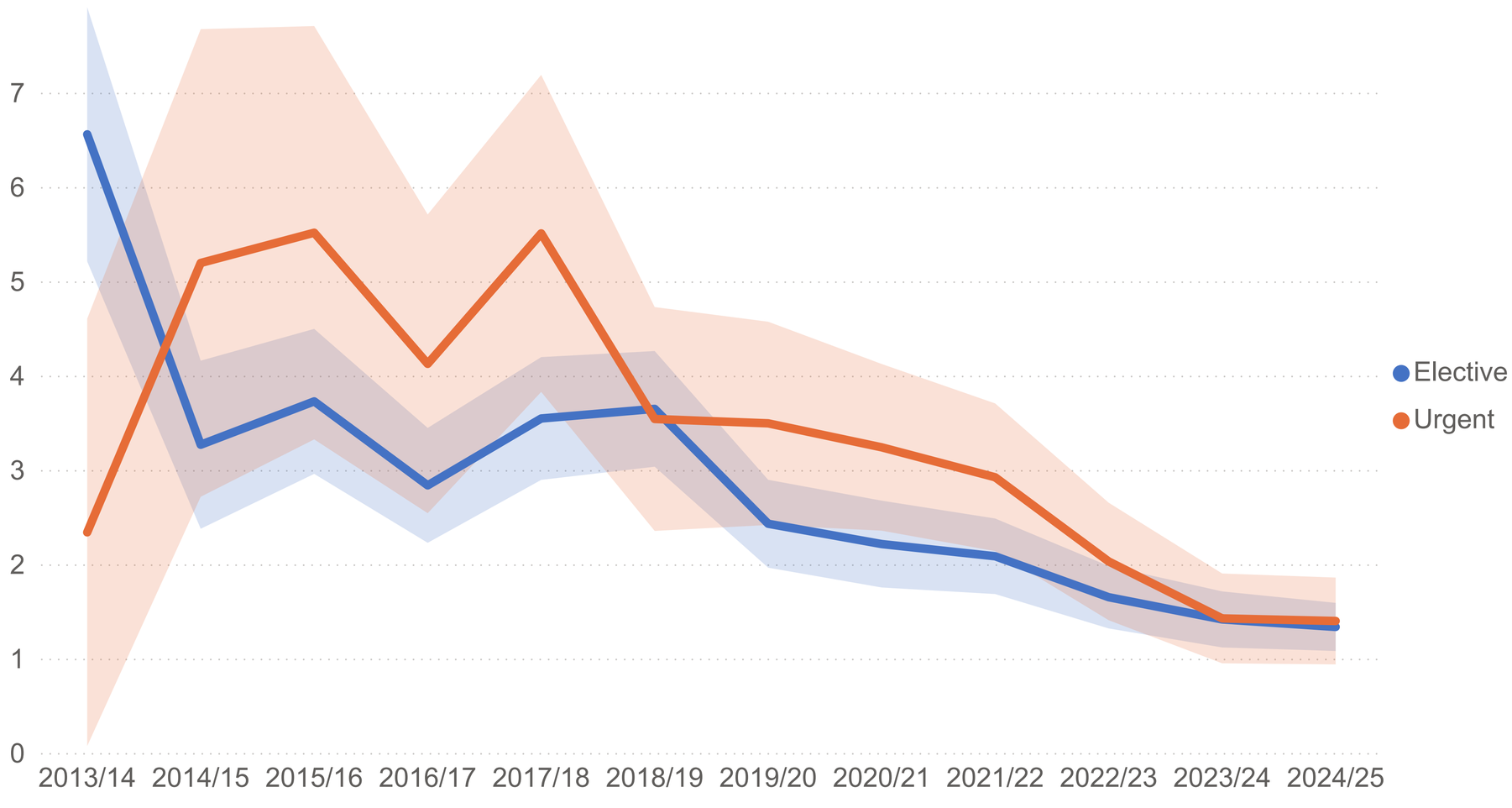
Both elective and urgent cases have followed this trajectory. Urgent cases show wider confidence intervals reflecting greater variability, and while rates are nominally higher at some timepoints, the overlapping confidence intervals mean a firm conclusion about differential risk between the two groups is not supported by these data.

This improvement reflects advances in valve design, sizing accuracy, and implantation technique.

Note: Shaded areas represent the 95% confidence interval of the mean line.

Data completeness for this field is relatively low and should be taken into account when interpreting this information.

Percentage of patients with moderate or severe aortic regurgitation following a TAVI procedure, by urgency (2013/14 to 2024/25)



Data Completeness
94.5%

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The rate of acute kidney injury following a TAVI procedure continues to fall with a higher risk for urgent cases than elective cases

Acute kidney injury (AKI) refers to a sudden deterioration in kidney function that can occur following major procedures and is associated with longer hospital stay and worse outcomes.

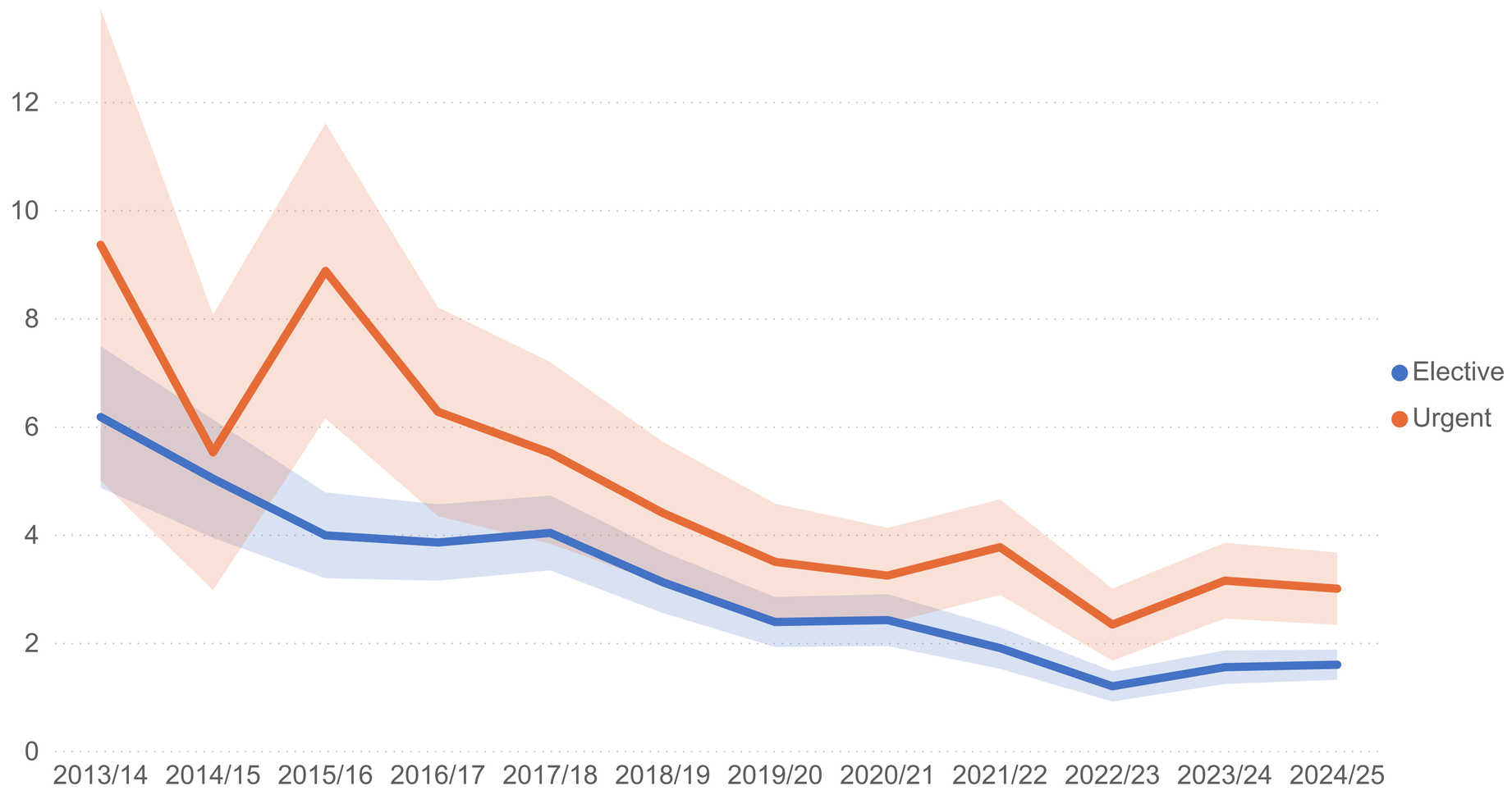
In this analysis, AKI was more common in patients undergoing urgent TAVI compared with those treated electively. This difference is likely to reflect sicker patients referred urgently, who more frequently present with advanced heart failure (impaired cardiac function) at the time of intervention.

The finding is consistent with AKI acting as a marker of overall patient risk rather than procedural performance alone. However, because AKI is clinically important, measurable, and potentially modifiable through peri-procedural care it may represent a useful quality indicator for TAVI services.

Note: Shaded areas represent the 95% confidence interval of the mean line.

Data completeness for this field is relatively low and should be taken into account when interpreting this information.

Percentage of TAVI patients with acute kidney injury within 7 days of TAVI, by urgency (2013/14 to 2024/25)



Data Completeness
90.2%

Procedural safety in elective and urgent TAVI: what the data tell us

Over the past decade the procedural safety of TAVI has improved dramatically across all key measures. Stroke, major bleeding, vascular access complications, and post-procedural aortic regurgitation have all fallen substantially, and the adoption of percutaneous transfemoral access now exceeds 97% of all procedures nationally. These gains represent a genuine transformation in the safety profile of TAVI as a treatment.

Critically, these improvements have been shared equally between elective and urgent cases. Across all four complication measures - stroke, bleeding, vascular complications, and aortic regurgitation - the confidence intervals for elective and urgent cases overlap throughout the period, meaning that for these procedural outcomes the two groups are statistically indistinguishable. Urgent TAVI, despite being performed in more acutely unwell patients, does not appear to carry a meaningfully higher risk of in-hospital procedural complications than elective TAVI.

This is an important finding because it help us to understand the mortality difference between elective and urgent cases. The substantially higher mortality seen in urgent cases at discharge, at 30 days, and persisting to 12 months cannot be explained by higher rates of procedural complications, since these are equivalent between the two groups. The persistence of excess mortality to 12 months, long after any procedural complication would have declared itself, points towards the pre-existing clinical state of urgent patients as the drivers of worse outcomes.

The implication is significant. If procedural factors are not driving the mortality gap, then improving procedural technique or in-hospital care alone will not close it.

The opportunity lies in other aspects of the pathway to improve the longer-term vulnerability of this group.

The proportion of urgent cases undertaken by centre varies considerably

NHS hospitals performing TAVI undertook an average of 327 cases in 2024/25, up from 247 the previous year. However there is significant variation between centres in both volume and case mix.

The proportion of urgent cases is not related to overall procedure volume. This suggests that urgent case proportions reflect local referral patterns, case selection practices, and population factors rather than simply centre size or experience.

Urgency status is not recorded in all cases at some centres, with one hospital failing to record urgency in 28% of its cases. Urgency is one of the most important determinants of patient risk and is central to fair comparison of outcomes between hospitals. Without consistent urgency recording, risk adjustment is compromised and like-for-like comparisons between centres become unreliable.

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

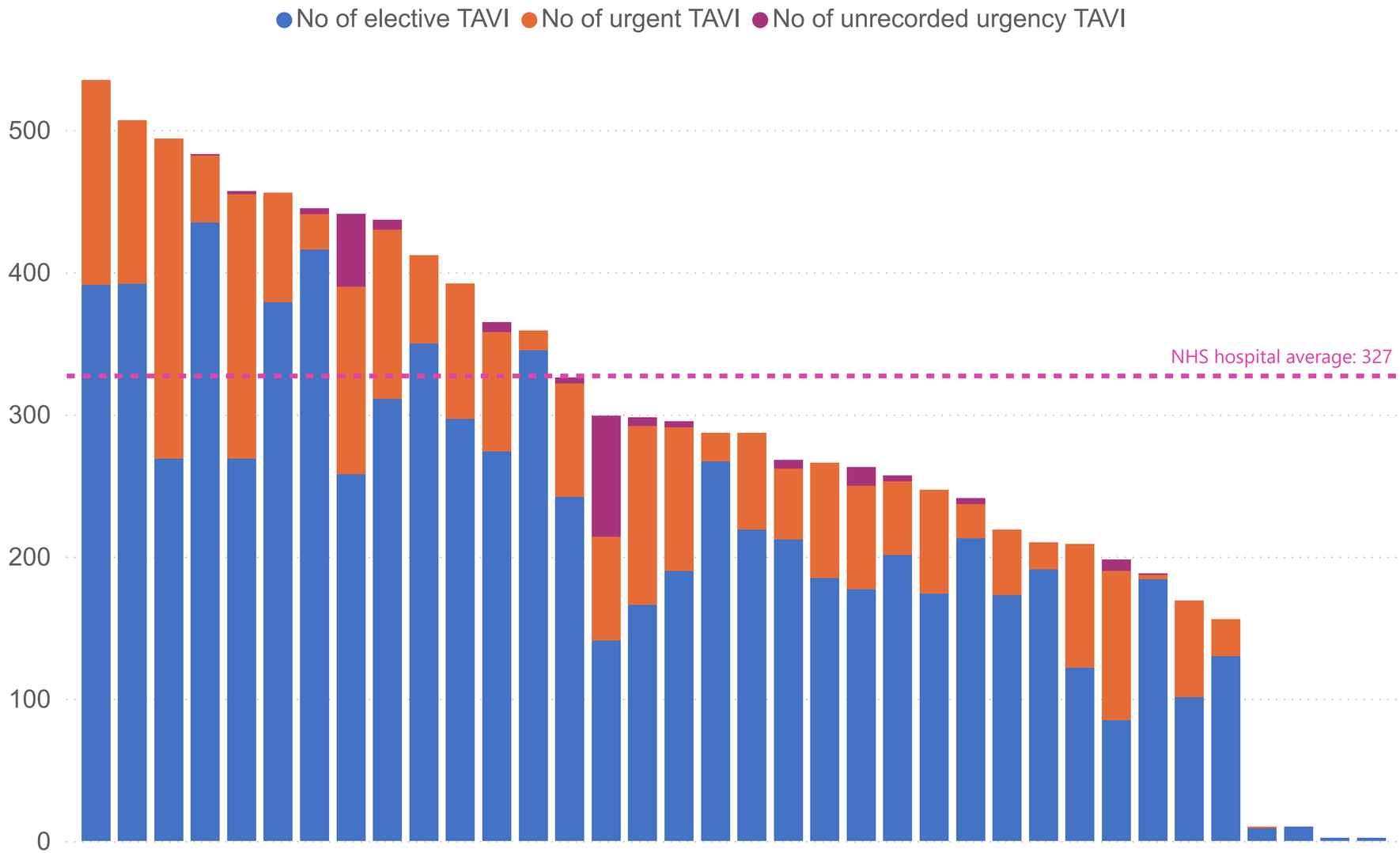
Select country/Cardiac Network

All

Select hospital

All

TAVI cases by urgency, by hospital (2024/25)



NICOR

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The overall proportion of urgent TAVI cases remains at about 25%, but this varies by hospital

The chart shows variation in urgent case rates for TAVI across hospitals over a three year period against total TAVI procedures performed.

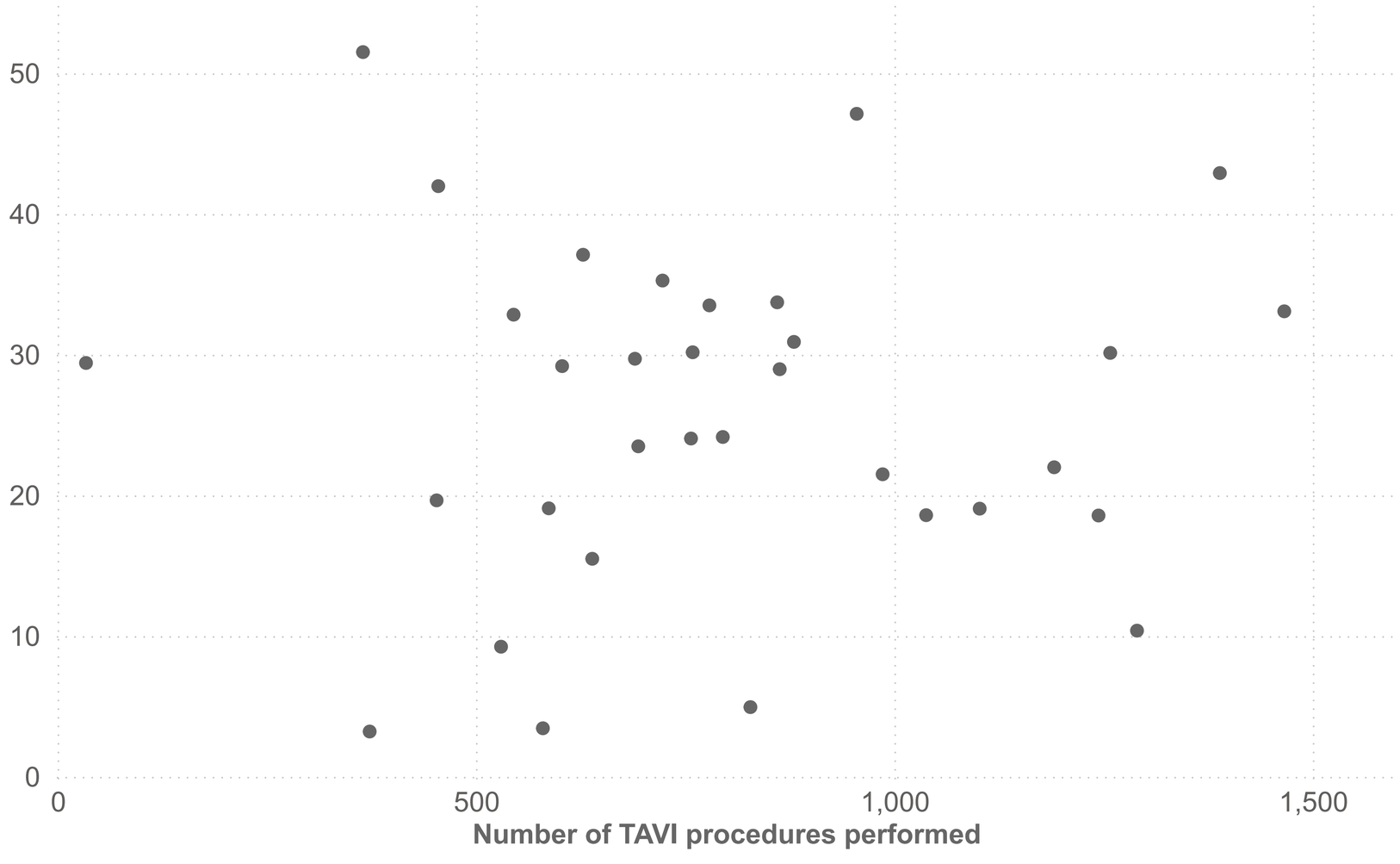
Urgency is associated with poorer outcomes, so understanding variation in these rates is clinically important. Given that urgency classification may reflect differences in referral patterns, case mix, local practice, case definition, the chart should be read as mapping the scale and distribution of variation rather than identifying units as performing well or poorly.

The priority is to understand what is driving the variation, although this cannot be fully established from the NICOR audit data.

Note: Five low-volume private hospitals with fewer than 30 TAVI procedures over the 3 years have been removed from the plot as they perform predominantly elective cases. Procedures with no valid urgency field have been excluded from the percent urgency denominator and number of procedures performed.

Proportion (%) of urgent TAVI procedures by centre (2022/24 to 2024/25)

NHS centres only. Each point is a centre with data aggregated across 3 financial years.



Variation in TAVI activity across the healthcare system

Nationally TAVI activity is growing strongly and the proportion of urgent cases is edging downward - both positive signals. But beneath the national picture, substantial variation exists at every level from Cardiac Network to Integrated Care Board to individual hospital, as shown in our full annual reports.

Total procedure rates vary several fold across Cardiac Networks and across ICBs even after age standardisation, a scale of variation that cannot be attributed to population differences alone. Urgent case proportions vary considerably between hospitals and are not related to centre volume, suggesting that local referral patterns, case selection practices, and pathway factors are driving differences rather than patient need alone.

This variation matters because it raises a fundamental equity question. If access to timely elective TAVI is genuinely unequal across the country, then the higher urgent rates and associated worse outcomes seen in some areas may not simply reflect sicker patients but may reflect patients who did not get the opportunity to be treated earlier.

Understanding how much of the observed variation is explained by patient factors, how much by system factors, and how much by inconsistency in how urgency is recorded and defined, is the central challenge that future work should address.

There is no difference in data completeness between elective and urgent cases but it needs to be improved to assist benchmarking and risk adjustment

Overall data completeness in 2024/25 is high: 91.0% for elective and 90.7% for urgent procedures. Thus, the differences shown between these two groups in this report are not explained by data quality issues.

For the majority of data fields completeness is excellent, with core demographic, procedural and complication variables all recorded at or close to 100% in both elective and urgent cases. This reflects well on the commitment of centres to the audit and provides a robust foundation for the national findings presented here.

However some areas require improvement. Heart and valve function measures - which include the echocardiographic data needed to characterise patients' cardiac status before and after the procedure - are only 90% complete for elective cases and 87% for urgent cases. Post-valve indices, ethnicity, and valve serial number remain poorly reported in both elective and urgent cases which has implications for risk adjustment and any future analysis of valve platforms.

These gaps matter as they are central to robust risk adjustment - the process by which patient complexity and case mix are accounted for when comparing outcomes between hospitals. Where these fields are incomplete, the ability to make fair, like-for-like comparisons between centres is compromised.

Note: Elective or urgent status is not recorded for 207 cases.

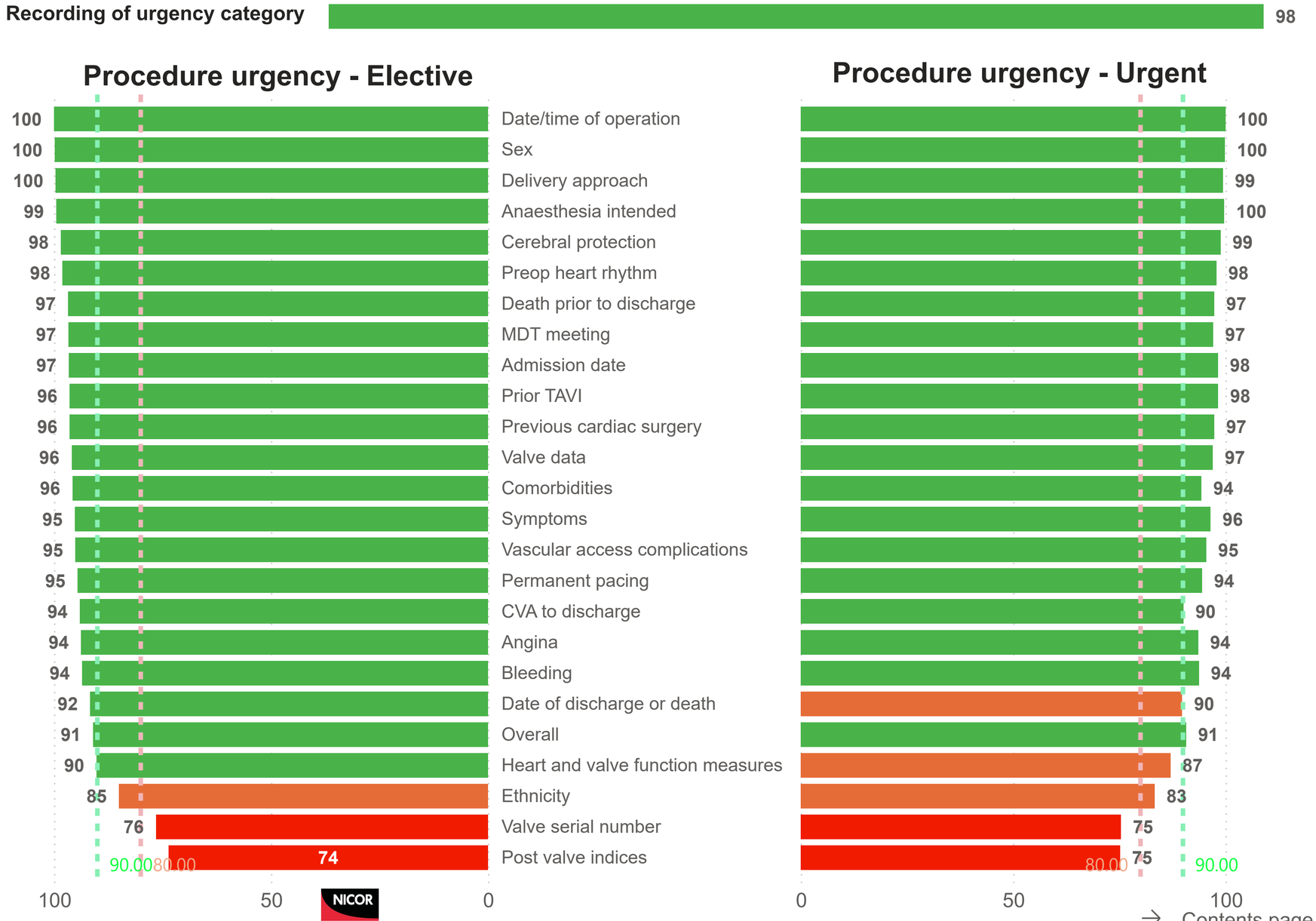
Select a hospital below to see its data.

Select Cardiac Network

All

Select hospital

All



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Data completeness for Q1 and Q2 for 2025/26 - improving but we could do better

This shows data completeness for the first half of the 2025/26 financial year. The submission deadline for data for the full financial year is 31st May 2026.

Overall data completeness is excellent at 92% in urgent and elective procedure status. Valve serial number and ethnicity reporting has improved but post valve indices reporting remains poor at 72%.

Data from all centres may not be complete for all months. Please be aware that these figures may change after final submissions are analysed in the formal 2025/26 annual report.

Note: Elective or urgent status is not recorded for 140 cases in the interim period.

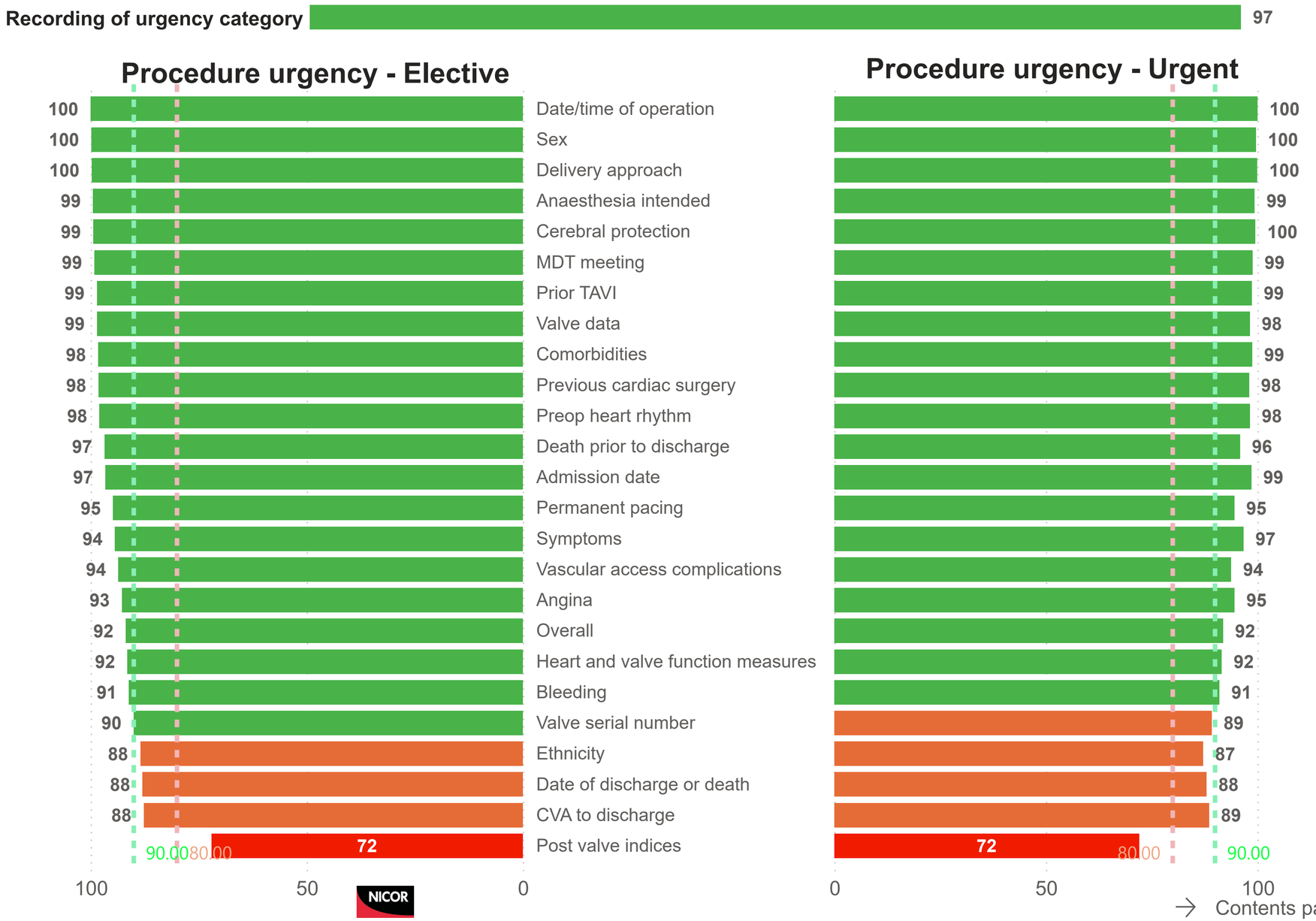
Select a hospital below to see its data.

Select Cardiac Network

All

Select hospital

All



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Note on methodology and data

In this report, an urgent procedure is defined as any non-elective TAVI procedure with a valid entry in the *7.060 Procedure urgency* field in the TAVI data submission. The data specification is linked here. This includes a small number of salvage and emergency procedures, which make up approximately 3% of non-elective TAVI cases in the dataset.

Approximately 2% of TAVI records didn't contain a valid entry in the *7.060 Procedure urgency* field. Unless stated otherwise in legends or in-page commentary, these cases have been removed from calculations, totals, and denominators to reduce visualisation and commentary complexity.

Small changes in values are expected between this report and the 2024/25 TAVI annual report due to data submissions and revisions that were received after the data cut-off deadline for the previous annual report. Any additions or revisions that were made to the data submitted for the 2024/25 financial year will have been included in the dataset used as the basis for this interim report.