

# Report at a glance

(See last page for explanation of acronyms)

The National Cardiac Audit Programme (NCAP) consists of 11 different sub-specialties (or 'domains'). This report covers 10 of the 11 domains over 12 months from 1 April 2023 to 31 March 2024 or, where metrics cover a three-year period, from 2021/22 to 2023/24.

**Blue headline figures** = positive results **Red headline figures** = adverse results

**Black headline figures** = changes where interpretation is less clear

## Shifts in demand and delivery of different treatments

### Recorded heart attacks are down



↓8.3%

Fewer confirmed heart attacks since 2017/18

↓10%

Fewer higher-risk ST-elevation myocardial infarction (STEMI) heart attacks since 2017/18



### Revascularisation procedures are reducing



↓7% Fewer percutaneous coronary intervention (PCI) cases compared with 2017/18 (driven by a 25% drop in elective procedures)



↓18% Fewer CABG procedures compared with 2017/18 (driven by a 34% fall in elective operations)



### Heart failure admissions still below pre-pandemic levels

↓5.5%

Fewer confirmed heart failure admissions compared with 2019/20 (but up 7% on 2022/23)



### Rapid growth in aortic valve procedures, especially TAVI

x1.9

More patients treated for aortic valve disease over the last 10 years

x5

More TAVI procedures over the last 10 years

↓24%

↓26%

Fewer aortic valve replacement (AVR) surgery cases over the last 10 years

26%

More TAVI cases treated urgently (over 50% in 3 hospitals, under 20% in 9 hospitals)

Fewer mitral valve surgical procedures since 2019/20



## Shift from surgery to catheter-based treatments in CHD cases

↓16%

Fewer surgical procedures for congenital heart disease (CHD) since 2017/18 (but up 5% on 2022/23)

↑6%

More catheter-based treatments for CHD since 2017/18

↑10%

More pacing, ICD and ablation procedures for CHD patients compared with 2017/18



## Fewer pacing and defibrillator procedures, more ablation

↓12%

Fewer pacemaker procedures since 2015/16 (26% increase in generator change procedures); new implant rates are below the European average

↓25%

Fewer implants of devices with defibrillator function (ICDs, CRT-Ds) since 2015/16 (15% increase in CRT-P procedures during that time)

↑9%

More ablation procedures since 2015/16 (driven by 32% increase in complex atrial ablations, mainly for AF)

## Delays to treatment



## Delays to treatment for high-risk heart attacks begin to reduce

+22 mins

Longer median time for higher-risk STEMI heart attack patients to reach hospital after calling for an ambulance compared with 10 years ago (but an improvement of 3 minutes on 2022/23)

41%

Increased proportion of hospitals achieving the target to treat at least 70% of higher-risk STEMI heart attack patients within 60 minutes of arrival at hospital (up from 31% in 2022/23)

1 in 10

There has been a rise in the number of higher-risk STEMI heart attack patients who 'self-presented' to hospital rather than going by ambulance

84 mins

The extra time from symptom onset to treatment for STEMI patients who self-present to hospital compared with those who are brought in by ambulance



## Delays increasing for urgent PCI and for all CABG cases



**↓24%**

Fall in the proportion of lower-risk NSTEMI patients who underwent angiography within 72 hours of admission compared to 2017/18 (now only 51%)

**130 days**

Increased average waiting time for elective CABG surgery in England (35% longer than in 2016/17)

**13 days**

Increased average waiting time for urgent CABG surgery in England (30% longer than in 2016/17)

## Productivity and efficiency



### Blocks to be overcome to achieve optimal care



**96** Operations on average performed by cardiothoracic surgeons (compared to 140 in 2013/14)



**16%** Day-of-surgery admissions for elective cardiac surgery, well short of the 50% target



**+4 days** Admitted HF patients stay 4 days more in hospital if seen by a specialist but are more likely to receive evidence-based care and have better outcomes



**2 days** Median length of stay for an elective TAVI procedure has fallen

## Quality of care



### Variable performance in the effectiveness of drug prescribing



**↓5%** Fewer heart attack patients were discharged on optimal secondary preventive medication compared to 2019/20 (may represent a shift to community care)



**68%** Too few eligible heart failure patients with reduced ejection fraction received an MRA (should be 100%)



**70%** Increased use of sodium glucose co-transporter 2 inhibitor drugs for heart failure patients with reduced ejection fraction



**~20%** Heart failure patients with atrial fibrillation who were NOT prescribed an anticoagulant

# Unexplained variations and possible inequalities



## Variable prevalence of heart attacks and admissions for heart failure and variations in care by age, ethnicity and sex



**24%** Male  
**32%** Female  
Proportion of male and female higher-risk STEMI heart attack patients aged  $\geq 75$  NOT receiving reperfusion therapy



**134 mins** Median Call-To-Balloon time for Asian higher-risk STEMI heart attack patients (shorter than patients of other ethnicities)



**$\uparrow 3-5\%$**  Greater numbers of older lower-risk NSTEMI patients undergoing early angiography (within 72 hours of admission) compared with 2019/20 (but still only 49% are treated in this timeframe)



**20%** Admitted heart failure patients NOT seen by a specialist HF team



**41%** Proportion of TAVI patients who are female (lower than might be expected for the age group treated)



**75%** Proportion of left atrial appendage occlusion (LAAO) patients to date who are male (more should be female)

# New structural heart disease interventions



## Early evidence from new registries is encouraging



**98%** Proportion of mitral transcatheter edge-to-edge repair (TEER) procedures where severe mitral regurgitation was reduced after the procedure (TMTV Registry)



**126** Left atrial appendage occlusion (LAAO) procedures submitted with very low complication rates (LAAO Registry)



**1.4%** Device embolisation reported in  $>2200$  patent foramen ovale closure (PFOC) procedures over three years (PFOC Registry)

### Key

**AF:** atrial fibrillation;

**AVR:** aortic valve replacement;

**CABG:** coronary artery bypass grafting;

**CHD:** congenital heart disease;

**CRT-D:** cardiac resynchronisation therapy with defibrillator function;

**CRT-P:** cardiac resynchronisation therapy with pacemaker function;

**HF:** heart failure;

**ICD:** implantable cardioverter-defibrillator;

**LAAO:** left atrial appendage occlusion;

**MRA:** mineralocorticoid receptor antagonist;

**NSTEMI:** non-ST-elevation myocardial infarction;

**PCI:** percutaneous coronary intervention;

**PFOC:** patent foramen ovale closure;

**STEMI:** ST-elevation myocardial infarction;

**TAVI:** transcatheter aortic valve implantation;

**TEER:** transcatheter edge-to-edge repair.